



ISiD
ISiD

Zeszyty naukowe

Working papers

**Family formation and subjective well-being.
A literature overview.**

Baranowska Anna

Zeszyty naukowe
Instytut Statystyki i Demografii SGH

Nr 5, rok 2010

Abstract

This paper aims to provide an overview of the leading theoretical concepts and the available empirical evidence on family formation and subjective well-being. It identifies the issues which could be investigated in more detail, possibly with refined methodological approaches. An additional objective of the paper is to suggest how research in this field could contribute to the debate on population policy.

Contents

1. Introduction	4
2. Measurement of subjective well-being	5
3. Union formation and well-being	9
Cohabitation and marriage — does the form of partnership matter?.....	10
Empirical findings.....	11
Summary	13
4. Entry into parenthood and well-being.....	14
“Atypical” parenthood: non-marital births and late childbearing.....	16
Empirical findings.....	17
Summary	18
5. Contextual factors affecting satisfaction from family formation.....	19
Empirical findings.....	21
Summary	23
6. Opportunities for further research	24
References	27

1. Introduction

Subjective well-being has raised a lot of interest in recent demographic research (Billari & Kohler 2009; Kohler et al. 2005; Margolis & Myrskylä 2010; Zimmerman & Easterlin 2006). One of the reasons behind the increased attention is that an insight into the relationship between happiness and family formation can explain the micro mechanisms underlying macro-level marriage and fertility dynamics. The most frequently cited economic models of family formation link partnership or parenthood decisions with the concept of maximisation of life-cycle utility. These models assume that life satisfaction represents a latent factor that cannot be measured directly. Empirical work has therefore treated the utility derived from partnership and parenthood as universal and assumed that only the direct or opportunity costs of family formation produce variation in the observed fertility behaviour.

New perspectives have opened due to the development of direct indicators of subjective individual-level well-being. The methods of collecting micro data on reported happiness are currently quite advanced. There is also a growing body of methodological literature on the reliability, validity, and comparability of the answers to the related survey questions on happiness (Diener, 1984; Veenhoven, 1993; Frey & Stutzer, 2002). Despite the fact that life satisfaction is a complex construct, these methodological studies indicate that subjective indicators are sensitive to life circumstances (Schwarz & Strack 1999; Ehrhardt, Saris, & Veenhoven 2000), and provide information relevant to research on the effects of family formation decisions on happiness. The availability of micro data on the subjective well-being of singles, cohabiters, and spouses provides an opportunity to test whether union formation indeed increases life satisfaction. Comparing the reported happiness of the childless and of parents allows demographers to investigate the impact of entry into parenthood.

This paper aims to provide an overview of the leading theoretical concepts and summarise the available empirical evidence on family formation and subjective well-being. In particular, it reviews the studies which investigate the effects of union formation and entry into parenthood on subjective well-being. Apart from presenting a summary of recent findings, it identifies the issues which could be investigated in more detail. An additional objective of the paper is to suggest how research in this field could contribute to the debate on population policy.

Although the goal of socio-demographic research is not limited to proposing policy recommendations, but rather aims at providing insight into the mechanisms behind the changes in population structure, such recommendations always represent an important value added of theoretical or empirical investigations.

This paper is structured in the following way. Section 2 provides a brief summary of how subjective well-being is measured in empirical practice. Section 3 addresses the question of how and why a partnership may improve individual well-being. Section 4 focuses on the relationship between parenthood and happiness. Section 5 describes various ways in which institutional and cultural factors can modify the impact of family formation on well-being. The paper is concluded with a discussion of the opportunities for further research.

2. Measurement of subjective well-being

Subjective wellbeing can be treated as a self-reported measure of utility. In social sciences, it has been used as “an umbrella term” (Dolan et al. 2008) which describes how people feel about their lives (Diener, Suh, Lucas, & Smith, 1999). Subjective well-being is a broad category which involves positive and negative feelings, expressions of happiness, as well as cognitive judgments of life satisfaction (Dolan et al. 2008). Each of these constructs has its own specifics. However, these components of subjective well-being often correlate substantially. Therefore, many social scientists treat subjective well-being as a general area of scientific interest and often use the terms signifying its various dimensions interchangeably (Easterlin 2004). In this literature overview, a similar approach has been adopted, i.e. terms such as happiness, life satisfaction and well-being are used synonymously.

Subjective well-being is measured in surveys by means of either single-item or multiple-item questions. The following example of a single-item question on happiness comes from the World Values Survey: “Taken all together, how happy would you say you are: very happy, quite happy, not very happy, not at all happy?” The responses are measured on a numerical scale, with lower values indicating poorer well-being (i.e.. from 1 “Not at all happy” up to 4 “Very happy”). One of the alternatives is the item used, among others, in the Eurobarometer Survey. The question to the respondents is as follows: “On the whole are you very satisfied, fairly satisfied, not very satisfied, or not satisfied with the life you lead?”. Most demographic

and economic empirical studies have relied on these simplified measures of subjective well-being.

The single-item scales have the advantage of brevity, which is clearly important in large multi-purpose surveys. However, the responses to single-item questions are considered to be less reliable than multi-item scales. According to validity studies, measurement errors tend to be smaller on average in indicators derived from multi-item than from single-item scales. One of the examples of a multi-item subjective well-being measure is the set of questions in the General Health Questionnaire in the British Household Panel Survey. They provide ratings of the following statements: "Have you recently, a) been able to concentrate on whatever you're doing, b) felt that you were playing a useful part in things, c) felt capable of making decisions about things, d) been able to enjoy your normal day-to-day activities, e) been able to face up to problems, f) been feeling reasonably happy, all things considered, g) lost much sleep over worry, h) felt constantly under strain, i) felt you could not overcome your difficulties, j) been feeling unhappy or depressed, k) been losing confidence in yourself, l) been thinking of yourself as a worthless person?" The responses are recorded on a four-point scale. The scores are then summed up to form a single index, with a higher sum of scores indicating lower psychological well-being.

Other survey instruments include the Affectometer 1 and Affectometer 2 developed by Kamman et al. (1979) and Kamman & Flett (1983) respectively, as well as the Satisfaction with Life Scale (Diener et al., 1985; Pavot & Diener, 1993b). The Affectometers measure the balance of pleasant and unpleasant feelings. Affectometer 1 incorporates a scale that has 96 separate items for positive and negative affects and uses the balance or net scoring formula to obtain the overall well-being score. Further validation and consolidation work led to a transformation of the extensive Affectometer 1 into a 40-item questionnaire, called Affectometer 2 (Kamman and Flett, 1983b).

The Satisfaction with Life Scale focuses on the cognitive judgments of life satisfaction rather than affects (Diener 1993). It includes the following items: (1) in most ways my life is close to my ideal (2) the conditions of my life are excellent (3) I am satisfied with my life (4) so far I have gotten the important things I want in my life (5) if I could live my life over, I would change almost nothing. These items are answered using a 7-point scale ranging from "Strongly agree" to "Strongly disagree". The Satisfaction With Life Scale assesses the

respondent's satisfaction with life as a whole, rather than contentment with any of the specific life domains such as health, intimate relationships or finances. It allows individuals to evaluate their lives by using their own criteria, weighting these domains in whatever way they consider appropriate.

Obviously, as in the case of any self-reported measures, subjective well-being indicators have a number of shortcomings. These judgements may be sensitive to the type of scale, the order of items in the questionnaire, and certain situational factors such as the weather or the mood of the respondents (Schwarz & Strack, 1991, Pudney 2010). However, there are some arguments in favour of using these indicators as reliable measures of individual genuine well-being. First of all, self-rated happiness is strongly correlated with assessments of how spouses, family and friends assess the given person's happiness (Costa & McCrae, 1988; Diener, 1984; Pavot & Diener, 1993; Sandvik et al., 1993). Second, there is a strong relationship between happiness and the physical symptoms of well-being. For example, higher rates of subjective well-being have been shown to be strongly associated with the longer duration of the so-called "Duchenne" smile (Ekman et al., 1990), which indicates a positive affective state of mind. High reported happiness also correlates with measures of responses to stress such as heart rate and blood pressure (Shedler et al., 1993). The assessments of well-being are good predictors of mental health and suicide attempts (Lewinsohn, Redner, & Seeley, 1991). Summing up, despite earlier concerns, subjective well-being indicators appear to be relatively robust measures of genuine individual well-being (Dolan & White, 2007). However, their use requires careful analysis, arguably implementing analytical approaches that eliminate bias resulting from the measurement error.

Nevertheless, research focusing on the relationship between happiness and family formation requires special care to be taken with respect to the analytical framework. The individuals who have innate predispositions to report a higher level of life satisfaction may also systematically vary in their propensity to form unions. For example, persons in good mental and physical health may have higher chances of finding a partner and simultaneously display a higher propensity to express contentment with their life. Selection into partnership is very well grounded in evolutionary theories: the fitter individuals have better chances of reproducing and so they attract more potential partners. Apart from universal traits which drive selection into partnership and simultaneously improve subjective well-being, there are

also individual, often unobserved, characteristics that play a different role in mate selection and happiness depending on gender. For women, being young, healthy and able to conceive are associated with increased value on the marriage market, whereas social status and wealth raise the attractiveness of males. Hence, as long as mental and physical health cannot be fully controlled for, the observed and measured effect of partnership status on happiness will be biased.

Unfortunately, apart from health, which is occasionally measured in some surveys, there is a whole range of factors which may exert a similar confounding influence. Psychological research shows that specific personality traits, such as extraversion and low neurotism, vary systematically with happiness ratings and also affect marriage chances (DeNeve & Cooper, 1998; Diener & Lucas 1999). Furthermore, just as intrinsically happy individuals may select into the group of those who form unions, there might also be mechanisms of selection into the group of prospective parents. Hence, disentangling causal effects poses a challenge and requires particular care in empirical applications. In the following sections of this paper, the review of empirical evidence focuses on research which attempts to remove selection bias. An exception is made in section 5 which discusses studies that concentrate on contextual rather than individual-level influences; to the author's best knowledge, there exist no studies which control for unobserved effects specific to the individual.

Another interesting but methodologically challenging aspect of satisfaction derived from partnership or parenthood is its persistence. It may be argued that living in a union does not necessarily increase life-time happiness, regardless of the time that has elapsed from union formation or giving birth. In particular, set-point theory argues that all individuals follow the process of adaptation, which means that people get used to all kinds of stimuli (Lucas, Clark, Georgellis, & Diener, 2003). Due to this adaptation process, individuals who stay together for a long time are likely to report lower well-being than in the initial stage of union formation (Soons & Kalmijn 2009). These models predict that an initial partnership phase is characterised by an increased well-being (i.e. the so-called "honeymoon effect"), but then satisfaction falls. In the context of well-being dynamics, this implies that couples tend to get used to pleasure derived from living in a close relationship, and after some time they report their "baseline" level of subjective well-being. Similarly, the effect of entering parenthood may vary strongly depending on the age of the child or the stage of the life course. Unlike in

the case of selection processes, this issue requires high quality longitudinal data rather than sophisticated analytical methods.

3. Union formation and subjective well-being

The main mechanisms generating causal positive effects of partnership on well-being are related to social and emotional support. A partner can help to cope with the strains in life, develop a positive sense of identity and raise self-esteem (Coombs 1991; Johnson & Wu 2002). Individuals who have partners not only feel less lonely and helpless, but also benefit from sexual intimacy (Blanchflower & Oswald 2004; Waite & Joyner 2001). Particularly strong effects of such support can be expected among homogamous couples, who are more likely to share common norms and values, and hence experience fewer conflicts (Brynin, Longhi & Perez 2009).

There are also other mediating mechanisms which contribute to the positive effect of partnership on life satisfaction. One of the examples is related to the social control of health behaviour. Having a partner may increase the likelihood of early detection of illness symptoms and receiving medical treatment. It might also discourage risky behaviours such as drinking and smoking, and promote a healthy diet (Joung et al., 1997; Umberson, 1992). This applies especially to men, who are argued to adopt a healthier life style from their female partners. In turn, better physical health improves subjective well-being both in the short and the long term.

Union formation may also affect subjective well-being because it encourages sharing of resources. Due to the economies of scale related to sharing a flat, people who have partners may enjoy a higher standard of living than singles (Brien & Sheran 2003, Weiss 1993; Joung et al., 1997). Mutual financial responsibility provides suitable conditions for division of labour and contributes to the increase in the joint utility of the household (Becker 1981). In turn, in dual-breadwinner households, the income derived by one of the partners may serve as a “safety net” for the other spouse in case of job loss. Spouses may also provide services for which markets are missing or imperfect, such as long term care in the event of illness or old age, and hence partnership can be viewed as a form of insurance against adverse life course risks.

Cohabitation and marriage — does the form of partnership matter?

Marriage has traditionally been regarded as a fundamental social institution for procreation, child-rearing and the organization of labour within households. However, in many European societies, most of these processes are no longer restricted to married couples. Alternative forms of partnership, including cohabitation, are becoming increasingly common. The question is whether these atypical partnerships are of lower quality and bring less life-time satisfaction for couples, or does the lack of legitimisation have no impact on the well-being of unmarried partners.

There are well-established theoretical concepts explaining why marriage should improve life satisfaction more than cohabitation does. Marriage is an institution defined by a legal contract which specifies mutual rights and responsibilities (Musick & Bumpass 2006; Nock 1995). The institution of marriage creates normative standards with respect to appropriate behaviours, which are then protected through social support of family, friends and the local community (Cherlin 2004). For example, according to this institutionalization perspective, formalization of unions through marriage contracts is a form of a public promise of faithfulness (Hansen et al. 2006). As long as a couple is married, society may sanction deviations from these norms, which would be difficult in the case of unmarried unions.

Marriage can be argued to reduce uncertainty regarding the future duration of the relationship, which in turn reinforces commitment and mutual investment in the relationships (Hansen et al. 2007). By contrast, cohabitation gives a weaker guarantee of personal commitment, since an informal promise is easier to break than a public and formal oath (Cherlin, 2004; Evans & Kelley, 2004; Nock 1995). Against this background, it could be expected that, in general, the legitimisation of union matters where the wellbeing of partners is concerned.

Both marriage and cohabitation provide conditions for pooling material resources and deriving benefits from economies of scale (Brien & Sheran 2003, Weiss 1997; Joung et al., 1997). However, as long as in many countries the mutual rights and obligations of cohabiting partners are not as well defined by law as in the case of marriage, couples in formal unions have an advantage in this respect. Furthermore, in most European countries, the law restricts privileges related to sharing of financial resources to married couples only. Examples of such privileges include joint taxation, tax breaks or housing allowances. Moreover, property law and divorce law protect married partners against loss of their

investments, which is not necessarily the case for cohabiters. To the extent to which marriage encourages combining two significant incomes more than cohabitation, married individuals may enjoy a higher standard of living, which might improve their well-being.

The gap in effects of reported well-being between married and non-married partners may differ for men and women due to gender differences in the motivation to engage in long-term partnerships. According to evolutionary models of family formation, for females, the need to receive financial protection and support in raising children encourages monogamy. For men, instead, the longer reproductive life and the higher interest in conception rather than in childrearing increases propensity for a higher number of short-lived relationships (Daly & Wilson 2000; Kaplan & Lancaster 2003). Hence, as long as women benefit from long term relationships more than men do, formalisation of unions, which gives ground for the expectation of long-term stability, might increase well-being mainly among females.

Empirical findings

There is a plethora of studies which explicitly measure or at least control for civil status in measuring individual-level wellbeing. Already over two decades ago, Haring-Hidore et al. (1985) synthesized the findings from 58 empirical studies within a meta-analysis framework to show a positive association between being married and subjective well-being. Cross-sectional studies typically show that cohabiters report lower well-being than married couples (Stack & Eshleman 1998). These effects have been found even in societies where cohabitation is widespread and socially accepted (Hansen et al. 2007). However, most available studies, including the two cited above, do not overcome the problem of selection of intrinsically happy persons into the sample of individuals who find a stable partner. The following review of empirical literature summarises the findings of studies that remove bias resulting from selection into (a specific type of) partnership.

Clarck et al. (2008) used fixed effects models based on the German Socio-Economic Panel to test the level and persistence of consequences of entry into union. The results suggested that marriage increases well-being, but only for a specific period of time. The peak occurs around a year after it happens, and afterwards individuals seem to adapt to the fact that they have a partner who supports them emotionally or otherwise.

Kohler et al. (2005) also overcame the problem of selection bias by means of fixed effects models. The authors used data from a cross-sectional survey conducted on a sample drawn from the Dutch register of monozygotic twins¹. The effects of partnership were measured in a cross-sectional design and hence authors didn't examine the changes in the effect of partnership on well-being across partnership duration. Furthermore, the data from the Dutch register do not allow the introduction of a distinction between marriage and cohabitation; hence the estimates concerned having a partner irrespective of union type. However, the study has a unique advantage of controlling for all the genetically transmitted predispositions and social background influences. The estimates showed that having a spouse substantially increases well-being for both genders, but interestingly, the impact is almost twice as large for men as compared to women. According to the authors, men seem to enjoy greater benefits in terms of subjective well-being from partnership than females.

Musick & Bumpass (2006) used fixed-effects models on panel data from the National Survey of Families and Households conducted in the USA in order to examine how marriage and cohabitation affect happiness. The focal point of their analysis was transition from being single into cohabitation and marriage, as well as from cohabitation into marriage. Their results showed no difference between the effects of moving into marriage compared to cohabitation. In general, moving into any type of union increases happiness to the same extent. Furthermore, there is no significant difference in the effects of direct marriage and marriage preceded by cohabitation for well-being.

Stutzer & Frey (2006) used fixed effects models and data from the German Socio-Economic Panel not only to demonstrate the causal effects of partnership on reported well-being, but also to provide insight into the sources of well-being in partnerships. They also considered the way that partnership effects vary across partnership duration. Moreover, they took an interdisciplinary perspective and drew on theories in economics of marriage as well as on sociological theories on educational homogamy and quality of unions.

In general, Stutzer & Frey (2006) found evidence for the "honeymoon effect" in marriage: as the year of marriage approaches, people report, on average, higher well-being, but after one

¹ For use of fixed effects models with twin data please refer to: Griliches, Z. 1979. Sibling models and data in economics: Beginnings of a survey, *Journal of Political Economy* 87(5): S37-S64.

year of marriage, the average reported satisfaction with life decreases. The formation of a cohabitating union has a positive impact on life satisfaction, similar to that of marriage, although the magnitude of the effect is sometimes not as large. To test the prediction that opportunities for specialisation in labour division raise the happiness of the couple, Stutzer & Frey (2006) divided the sample of married couples into a group of spouses with an above-median relative difference in wage rates and one with a below-median difference. The authors reported no systematic differences in subjective well-being between the two groups in the period following marriage; however, before marriage, the more heterogeneous couples who eventually married reported higher well-being than the more homogenous couples. The authors interpreted this as an argument in favour of economic theories of marriage: couples with a high potential for division of labour benefit from marriage to a larger extent. The evidence analysing actual couples' behaviour related to specialisation confirmed that unions which introduce specialisation after marriage report higher well-being than dual-income couples. Interestingly, this effect was stronger for women than for men.

According to Stutzer & Frey (2006), educational homogamy increases the well-being of couples after marriage, which the authors interpreted as evidence supporting sociological ideas about the benefits from "marrying partners who are alike". Couples with small differences in their level of education gain, on average, more satisfaction from marriage than spouses with large differences in educational attainment. The somewhat surprising finding is that in the period preceding marriage, no benefits in terms of life satisfaction are recorded by unions of similarly educated individuals.

Summary

There seems to be a broad consensus in both theoretical and empirical literature that having a partner increases life satisfaction. However, the effects of partnership may vary across time that elapses from its formation, and the positive impact seems to vanish after a couple of years (Clark et al. 2008). Regarding the well-being of cohabitants and married persons, there is no consensus on the inferiority of the former group. The studies which control for unobserved heterogeneity do not indicate that benefits from partnership are restricted to formal unions only (Stutzer & Frey 2006; Musick & Bumpass 2006).

4. Entry into parenthood and subjective well-being.

Although raising children is time-consuming and expensive, people asked about the most important things in their lives place having children near or even at the top of their list (Stanca 2009). Despite the strains and worries related to raising children, most men and women do not wish to remain childless. Although little is known about the specific reasons for childlessness, literature makes it clear that relatively few childless individuals now in midlife or (particularly) old age consciously decided never to have children. Their most common reasons for childlessness are remaining unmarried, very late marriage, or infertility (Hagestad & Call 2007; Toulemon 1996). Indeed, according to demographic theories, parenthood is assumed to positively affect life satisfaction. In the rational-choice models of fertility, the utility derived from having children is actually the fundamental tenet (Becker 1981, Ermisch 1989). This assumption has been neither tested nor explained in detail, however. The specification of the innate value of children is actually a missing component of these models (Nauck 2000).

The crucial assumption of utility gains derived from parenthood finds support in evolutionary biology. Recent studies argue that humans have evolved a predisposition towards nurturing (Foster 2000; Rodgers, Kohler, Kyvik & Christensen 2001). These arguments imply that having offspring increases happiness because it raises satisfaction, which is derived from taking care and fostering the development of small children.

Another theoretical idea explaining the utility of parenthood has been proposed by Hoffmann & Hoffmann (1973), who developed the “value of children” concept. In general, value of children refers to the parents’ needs that the offspring may fill. Hoffmann & Hoffmann (1973) proposed a wide number of such functions: from strengthening social ties, through enjoying novelty and a sense of achievement in life, development of the parents’ self, up to the opportunity of involving children in unpaid work in one’s own household and receiving their support in old age. One can distinguish between short-term and long-term aspects of utility from children and classify them into broad categories of factors affecting social recognition of parents, and factors improving their economic well-being as well as security and care in the old age (Nauck 2000).

While evolutionary approaches view the preference for having children as a universal feature of all human beings, the “value of children” approach considers factors which may actually introduce variation in fertility behaviour. The specific dimensions of value of children may vary according to the type of society or the social group. For example, depending on the cultural conditions, in some societies or social groups having (more) children may improve the social status of parents, while in other societies parenthood has no such influence. Furthermore, in modern societies, social security systems replace children’s economic value (e.g. Boldrin et al. 2005; Boldrin & Jones 2002; Cigno 1993; Ehrlich & Kim 2007; Rosati 1996)). Hence, in countries with a well-developed system of welfare state support for the elderly, the argument about the old-age insurance function of children may be less relevant than in countries where the family is responsible for non-working persons requiring care.

Regardless of all these arguments about satisfaction and economic benefits derived directly from parenthood, psychological studies draw attention to the negative consequences related to giving birth and rearing children. First of all, parents experience stress related to financial responsibility (Zimmerman & Easterlin 2006; Stanca 2009). Second, becoming a parent reduces leisure time (Sanchez & Thomson 1997). Finally, it affects the quality of the couple’s relationship (Lavee, Sharlin & Katz 1996), and exerts pressure that might have negative effects on psychological well-being (McLanahan & Adams 1987). Obviously, just as some of the benefits from having children are short term and others emerge only after many years, the distribution of costs related to having offspring varies over a child’s age. Arguably, the period of early care is the most time- and effort-intensive, whereas after children are grown up, they require less support.

Consistently with this point, McLanahan & Adams (1987) argued that the effect of parenthood on well-being changes over the life course. The turning points are marked by specific transitions, such as the birth of the first child and the departure from home of the last child. Parental experiences could be broken down into categories that represent distinct phases in the family life cycle and capture the context in which taking care of children is experienced. The first phase is the period without children, then follows a period with preschool children, a period with school-age children, and lastly, an “empty nest” stage.

“Atypical” parenthood: non-marital births and late childbearing

As the decisions to have children are becoming increasingly postponed by subsequent cohorts of young people, the question arises whether this shift is indeed driven solely by constraints on having children earlier, or whether later childbearing is a result of deliberate choices that also result in improved well-being of prospective parents. In the literature, the mechanisms behind the positive effects of late childbearing on well-being have been attributed to the so-called maternal maturity hypothesis (Hofferth, 1987, Turley 2003). Very young mothers are argued to be less likely to establish an optimal family environment for children. Meanwhile, people who have gained more life experience are more likely to provide appropriate parenting (Bornstein et al., 2006). Furthermore, the accumulated financial and social resources allow them to experience less worry about being “successful” parents.

The theoretical concepts related to another “atypical” childbearing behaviour, i.e. having children outside a union, remain even less developed. According to evolutionary theories, women value nurturing children more than men, and simultaneously women value partnership less than men do. Hence, perhaps there are actually reasons to believe that having a child outside union may have a positive or neutral impact on well-being for women. Furthermore, as long as in some cultures or social strata maternity allows the attainment of high social status, some young women may decide to enter motherhood even if they are unable to find a suitable life-partner, because children “bring the meaning to their life” (Evans & Kelley 2004).

Other evolutionary models predict that the age of entry into parenthood depends on the expected duration of the adult reproductive life span (Charnov 1991; Stearns 1992). According to this approach, in societies or regions where the expected life span is particularly short, individuals may follow a “fast life” strategy of early reproduction, reduced investment in offspring, and a high reproductive rate (Promislow & Harvey 1990; Wilson & Daly 1997). Consistently with these ideas, female life expectancy has been shown to remain strongly associated with age at first birth, with lower age at first birth in countries where mortality rates are high (Low et al. 2008; Walker et al. 2006). Furthermore, there is also some evidence focusing on modern, advanced societies, which demonstrates that in particularly deprived neighbourhoods with very low life expectancies, the age at first birth is much lower than in more developed regions (Nettle 2010). These results suggest that teenage childbearing may be

a deliberate response to the socio-economic context (Geronimus 2003; Ellis et al. 2009). Again, this suggests that contrary to conventional wisdom, having a child early and outside of formal union may have a positive or neutral impact on well-being for young women.

Clearly, these theoretical ideas need further development. On the one hand, the lack of elaborated theoretical and analytical frameworks for analysis of both teenage or non-marital births and late childbearing creates challenges for any new empirical contributions. On the other hand, it also opens up an interesting new avenue for research.

Empirical findings

While the impact of partnership on well-being has been studied extensively, research on the well-being effects of children is more scarce (Stutzer & Frey 2002, 2006). Furthermore, evidence is very mixed. Surprisingly, some studies show either non-significant or negative effects of parenthood. Similarly as in section 3 of this paper, the following review of empirical studies focuses on articles which tried to remove bias resulting from selection into parenthood.

Clark et al. (2008) used fixed-effects models on data from the German Socio-Economic Panel to show that an arrival of a new child increases happiness in the family. The birth of a child has a positive effect on female well-being, but no significant effect on the life satisfaction of men. Interestingly, these effects also vary over the age of the child. By the time the child is 2–3 years old, the impact of having a child turns negative for both sexes and remains so thereafter.

Kohler et al. (2005), who used sibling data to control for all confounding factors (including genetically-driven infertility), showed a diverging impact of childrearing depending on gender and age of parents, as well as the parity. The estimates from fixed-effects models reveal that for young females, the first-born child has a large positive effect on subjective well-being. However, the second child decreases happiness, and the third child and any further children almost completely level off the positive effect resulting from having the first child. For men, an increase in happiness resulting from the first child is lower than for women, but males do not experience the same declines in happiness with additional children as females do.

Clark & Oswald (2002) used panel data from the British Household Panel Study to estimate fixed-effects models that measure the impact of entry into parenthood on subjective well-

being. After controlling for individual effects, they found that having children is not associated with increased well-being. They also noted the negative influence of higher-parity births (i.e. third or higher-order children). The same data and methods have been used by Angeles (2009a, 2009b), who showed that the effect of children on the life satisfaction of married individuals is small, often negative, and never statistically significant.

Empirical evidence on the effects of late childbearing on life satisfaction is very limited. The few available studies do not use methods which would allow to disentangle the causal effects of postponement of childbearing and remove the potential selection bias. There are some studies which compare the symptoms of depression and paternal distress of on-time and older mothers (e.g. Boivin et al. 2009; Bures et al. 2009). Still, it is unclear whether the depressive symptoms are a causal effect of late childbearing, or if they are an effect of advanced age and related adverse health effects. Whether late childbearing contributes to the overall happiness, and if these effects are causal or spurious, remains to be proved.

As regards studies on extramarital births, evidence is also limited, and very mixed. Kohler et al. (2005) included in their models an interaction between partnership status and the indicator of having at least one child. Interestingly, it turned out to be insignificant, suggesting no negative effects of extramarital births on subjective well-being. Perhaps, after controlling for individual effects, raising children while outside of a union does not bring less happiness than raising children together with a partner. Clearly, this issue requires further investigation.

Summary

The impact of entry into parenthood on life satisfaction has so far been given much less attention than the influence of union formation. Based on the few available studies, it seems that the positive effects – if they emerge – concern women who give birth to their first child. As regards men or parents experiencing higher-parity births, the findings are much more mixed and actually raise doubts about the benefits from having a numerous family. While research on benefits from partnership compares the gains in well-being derived by cohabiting and married couples, researchers analysing the effects of parenthood have rarely paid attention to the diversity of parenthood forms. Given increasing non-marital birth rates, as well as the postponement in childbearing that leads to very late fertility, examining the variety of patterns of entry into parenthood could be worth considering in future research.

5. Contextual factors affecting satisfaction from family formation.

Research on the relationships between individual-level well-being and family formation raises many interesting questions about cross-national differences in partnership and fertility behaviour. While evolutionary theories propose explanations for some universal mechanisms, which should exist in most societies, there still are striking differences in the prevalence and consequences of various family forms. The differences in family formation patterns observed across Europe may be closely related to the fact that the gap between well-being of individuals adopting specific family formation behaviour is shaped by country-specific factors. As Billari and Kohler (2009) argue, if people anticipate the effects for family formation on their well-being, they may try to behave accordingly.

It could be argued that there are institutional or cultural factors which increase the gains or at least reduce the disadvantages from remaining unmarried. Furthermore, countries might differ in terms of barriers that deter from legitimising unions. Indeed, Diener, Gohm, Suh, & Oishi (2000) and Stack & Eshleman (1998) found that the difference in well-being between cohabitants and married couples differs across countries. Also, for the next stage of family formation, i.e. childbearing, the specific dimensions of value of children may vary depending on the country-specific cultural or institutional context. In different cultures, social recognition of parents may be remarkably higher than that of the unmarried and childless. Furthermore, in countries with various welfare state settings, the role of family members in the provision of financial support and care may be of overriding importance or it may be replaced by benefits and services guaranteed by the social security system. For example, Aassve et al. (2009) and Margolis & Myrskylä (2010) found that the direction and magnitude of the relationship between happiness and parental status differs across societies.

Regarding union formation, the main macro-level factors that have been taken into account as potential determinants of the gap in well-being between singles, cohabitants and the married refer to social norms and culture. For example, countries differ in the extent that marriage and cohabitation are tolerated (Soons & Kalmijn 2009). In countries where such alternative living arrangements are not common and accepted, cohabiting can evoke feelings of shame and guilt among people who live together without marriage (Jones & Kugler, 1993; Orth, Berking, & Burkhardt, 2009).

Another cultural factor which may mediate the impact of family formation is the level of individualism in the society in question (Diener et al. 2000). The opportunity to receive social support is one of the sources of satisfaction for people who form families. A lack of partner and children can have less severe consequences for well-being among people living in collectivist cultures, because in collectivist societies friends or relatives can provide support in the event of adverse life circumstances (Triandis, Bontempo, Villareal, Asai & Lucca 1988). Meanwhile, as the social support received from friends and relatives is inversely related to the levels of individualism, in individualist societies, the support of kins is known to play a less pronounced role than in collectivist cultures (Hofstede, 1980; Triandis, 1995).

In addition to the culture dominant in the given society, institutions can matter for the satisfaction derived from decisions to establish a family and choosing a specific family form. First of all, countries differ in terms of regulations regarding various types of partnership. In most countries, marriage is more institutionalized than cohabitation (Nock, 1995; Waaldijk, 2005). With respect to marriage, most countries usually provide specific regulations concerning mutual rights and obligations of partners living in a marriage. While in some countries such regulations exist also for cohabiters, in other countries there is no legal form for non-formal unions such as cohabitation. More developed legislative regulation of cohabitation may provide an opportunity for cohabitants to become eligible for the benefits and rights that married couples enjoy. These privileges include tax benefits, the eligibility to inherit, etc. As a result of such changes, married and non-married couples become more similar in terms of access to legal and material resources (Soons & Kalmijn 2009). The institutionalisation of the given type of partnership reduces formal and administrative barriers in everyday life and decreases insecurity about the eventuality of having to enforce one's own rights in case of conflict with the partner. Hence, institutionalisation of living arrangements which are alternative to marriage can reduce the gap in well-being of cohabiters (Soons & Kalmijn 2009).

As regards the impact of institutional factors on satisfaction from parenthood, policies improving the compatibility between the roles of parent and worker may play an important part (Billari & Kohler 2009). These policies include availability of childcare, flexibility of labour market regulations regarding working time, regulations on maternity and paternal leave as well as legal protection of working mothers (Jaumotte 2003). In fact, these policies may

not only have a significant impact on satisfaction from parenthood, but also the actual well-being of the parents after the birth of the child may be strongly affected, regardless of their prior expectations. Reconciliation policies may allow mothers to engage in paid work, decreasing the financial distress in their families, but also reducing the strain related to the double burden of family and professional duties.

Family policies may reduce not just the opportunity costs of having children, but also the direct costs related to having a family. The insight that childrearing involves costs and that fertility may be affected by these costs can be traced back to the work of Becker and associates (Becker 1993; Becker & Lewis 1973). First of all, parents have to bear the costs of food, clothes, adequate housing, medical costs, education provision, and so on. Second, parental expenditures are dependent on the demand for “quality” children. Some countries introduce policies which make access to public services easier for families, and thus, in these societies, having more children does not necessarily mean having less educated or healthy offspring. In general, in countries with family-friendly policies, parents can expect and experience higher gains in satisfaction derived from parenthood.

The above-described hypotheses proposed in literature are by no means an exhaustive list of possible influences of institutions and culture on the gains in satisfaction derived from partnership and parenthood. Clearly, the theoretical and analytical framework in this field still requires further development.

Empirical findings

There are many empirical contributions to the literature on cross-national differences in well-being related to family formation. However, hardly any studies ever move beyond describing differences in well-being of individuals in different family arrangements across countries. Recent research tries to quantify the mediating impact of cultural or institutional factors. Not only do the authors describe variations across societies, they also make an attempt to measure the extent to which the factors explain these variations. The review provided below presents a summary of results from studies which take such an approach. Obviously, these studies ignore the selection bias in estimates of satisfaction derived from partnership or parenthood.

Diener et al. (2000) investigated the way that culture modifies the impact of marital status on subjective well-being. They distinguished three categories of marital status: married,

divorced, and living with a significant other. Their analysis incorporated macro-level indicators of individualism vs. collectivism of culture in the society in question as well as indicators of acceptability of divorce. These indicators were interacted with marital status variables. In terms of life satisfaction, the benefit of marriage over cohabitation with a significant other was found to be greater in collectivist than in individualist nations. The authors interpreted this finding in favour of the hypothesis that collectivist cultures accept cohabitation to a lesser extent. However, the culture type did not alter the magnitude of the gap in well-being of the married and the divorced.

Soons & Kalmijn (2009) tested the hypothesis about the impact of the incidence and acceptance of cohabitation on the gap in well-being between cohabiting and married couples². In line with theoretical predictions, they found that in countries where cohabitation is firmly embedded in societal norms and behaviour, the gap in well-being of married and informal unions is much smaller than in more traditional countries. However, as the authors noted, this study only investigated the association between partnership and well-being. It cannot be excluded that people who know about the potential effects of their family formation decisions select themselves into the groups of cohabiting and married couples, and actually these selection processes may proceed differently in countries with differential institutional settings.

Margolis & Myrskylä (2010) used data from the World Value Survey to analyse the relationship between parenthood and subjective well-being from a cross-country comparative perspective. They tried to investigate, albeit in descriptive way, whether the direction and magnitude of this relationship varies depending on the type of welfare regime. Although they did not quantify the way that family policy affects the impact of parenthood on well-being, they presented and discussed their results in a manner that gives some very preliminary insight into how this influence could be shaped. They hypothesize that the well-being of parents with very small children could be relatively better in Nordic and Western European

² The authors argue that these two measures can actually be a proxy for institutionalization of cohabitation, because in countries where a legal framework defining mutual rights and obligations of cohabiters exists, this form of union is usually more prevalent and accepted. The incidence is the proportion of adults in a country who are currently cohabiting or who have ever cohabited; the second variable is the perceived attitude towards cohabitation with the question, “How much do you approve or disapprove if a man/woman lives with a partner without being married to her/him?”

countries, which implement policies that provide support for young families. Conversely, parents in countries with liberal policies which promote market solutions to individual risks may express less satisfaction with life. The same would apply to Southern European, post-socialist and developing countries with very limited state support for families with small children. In this group of countries, families are less protected from financial distress and so the well-being of parents may be more sensitive to shocks in expenditures related to the arrival of the new member of the household.

The hypotheses formulated by Margolis & Myrskylä (2010) were only partly confirmed by the results of their statistical analyses. In all countries, childless people reported higher well-being than those who have children. In Nordic countries, parents with one or two children have lower well-being, but for families with three or more children, happiness starts to rise to the level of the childless individuals. In Western Europe, happiness is unaffected by parity. Having a third or further child decreases parental well-being the most in former socialist, southern European and developing countries.

Summary

The studies reviewed in this section focus on the intervening role of institutional or cultural factors that might increase the gains or reduce the costs of family formation decisions. Combining micro- and macro-perspectives in this way has many advantages. The making of decisions about family formation is considered to be embedded in a country-specific context. Furthermore, this analytical framework brings research closer to the needs of policymakers. While insight into the basic micro-level relationships has to be the starting point of any macro-level investigation, testing hypotheses about the potential impact of institutional arrangements opens the field up for discussion of possible reforms that would improve the well-being of society. In general, existing research sometimes takes a comparative perspective, but does not try to draw conclusions from the observed cross-country differences in a quantitative way (see e.g. Aassve et al. 2009, Soons & Kalmijn 2009). The studies reviewed in this section give an example of how comparative analysis of the effects of family formation on well-being could be developed in order to consider the role of country-specific context. Obviously, such an approach requires access to high-quality international databases, which should include surveys from a considerable number of countries, and high quality

indicators describing the institutional and cultural background in these countries in a reliable way. Nevertheless, it seems to be a very promising path for future research.

6. Opportunities for further research

This literature overview aimed to summarise the emerging literature on family formation and subjective well-being. It focuses on two phases of family formation: entry into union and entry into parenthood. Theoretical literature has proposed that individuals establish families because such decisions increase their life-time satisfaction. However, empirical work so far has assumed that the utility derived from having a partner and children is universal and any divergence from the “standard” family model is driven by barriers to or costs of forming a family. Studies using direct measures of subjective well-being aim to test whether partnership and parenthood do indeed increase life satisfaction. Furthermore, such research may give insight into the heterogeneous effects of partnership and parenthood, which depends on their stage and form. It compares the individual well-being of singles and cohabiting and married partners across the duration of these relationships. Such research additionally investigates how life satisfaction of parents depends on the age and number of children. The happiness of partners and parents is then also analysed in various country-specific institutional and cultural contexts.

Regarding the impact of partnership on happiness, relatively little attention has been paid to differences in the contribution of various factors related to the well-being of people in unions. The theories of marriage mention various mechanisms which generate the positive impact of partnership: emotional support, intimacy, economic benefits, as well as adoption of a healthy life style. So far there have been no studies which compare the magnitude of these effects. Such analysis could certainly take into account gender differences in terms of selection and benefits. As argued in this paper, theoretical models suggest that various dimensions of partnership may affect men and women in a different way. For example, the quality and stability of unions may be more beneficial for women, whereas the positive health effects may be argued to prevail among men.

The impact of parenthood on life satisfaction has been investigated much less often. The few available studies suggest that parenthood does not substantially improve the happiness of men

or parents who already have at least one child. These findings actually raise doubts about the benefits from having a numerous family. However, if second and further children do not cause an additional increase in parental life satisfaction, it would be interesting to discover whether the lack of such a positive effect can be observed because one child is enough to satisfy the need for nurturing (as evolutionary theories suggest), or whether it is due to other countervailing influences. As pointed out in this paper, the additional financial stress and burden of house chores may level off the additional satisfaction derived from having more than one child. More research is definitely needed to clarify this issue. Arguably, such research could consider not only the gender-specific effects but also the couple's context such as the division of labour within a household. This strand of research could also be extended in order to consider the increasing diversity of family forms in Europe. Researchers analysing the impact of parenthood on well-being have so far rarely paid attention to differences in well-being of individuals who raise children outside unions, or have them late in life or never. More elaborate analysis examining the variety of patterns of entry into parenthood could be worth considering in future investigations.

Further work is also still necessary in the analysis of macro-level factors that contribute to the benefits from partnership or parenthood. Actually, from the previous remarks in this summary, it follows that the micro-level relationships are also still not clear and require more in-depth investigation. However, incorporating contextual variables in a systematic way would definitely improve the understanding of the underlying mechanisms and bring research closer to the needs of policymakers. While insight into the basic micro-level relationships has to be the starting point of any macro-level investigation, testing hypotheses about the potential impact of institutional arrangements opens the field for discussion on possible reforms that would improve the well-being of the society.

In particular, as it has already been argued, it could be verified whether improving conditions for combining work and parenthood increases the benefits from parenthood. Further, it could be tested whether financial support for families with children increases well-being of parents. These questions could be addressed in more detail by applying detailed indicators of support of family policy in parity-specific analysis. Finally, the influence of other dimensions of the welfare state, such as the provision of educational services, could be considered. As argued earlier in this paper, an investigation of the impact of inequalities in access to education for

children who have siblings has valid grounds in demographic theories, but has been ignored so far. There are other examples of neglected issues corresponding to the impact of the welfare state on the relative well-being of parents, such as housing policy or regulations affecting the flexibility of working time.

Current literature on the intervening role of macro-level factors could be extended not just by expanding the list of research questions, but also by addressing the same questions with more refined analytical methods. Most studies implicitly assume that policies and social norms affect human choices, but the modelling strategy incorporates the influence of macro factors only on the outcomes, i.e. on partners' or parental well-being. Obviously, while the handling of endogeneity of parenthood status creates methodological challenges, it opens the field for interesting research contributions with stronger inference opportunities.

Insight into the role of contextual factors related to policies or social norms could be gained not only through multilevel techniques which are currently the most common in this respect, but also by means of meta-regression. Meta-analysis is a very powerful analytical tool, because it provides a quantitative summary of the available research findings from micro-level studies and additionally allows to draw conclusions on a macro-level. So far, meta-regression has been used in research on the impact of family formation on life satisfaction only by Haring-Hidore et al (1985). The macro-level indicators incorporated by Haring-Hidore et al. (1985) referred to the research design of analysed studies and not to the context of countries for which these studies have been conducted. Furthermore, Haring-Hidore et al (1985) focus on formal unions as opposed to single persons. They do not compare the influence of marriage with that of cohabitation. Similar, but more in-depth analysis could also be carried out for the influence of parenthood on well-being.

ACKNOWLEDGEMENTS

This paper was prepared within the research project "Family Change and Subjective Well-Being" (FAMWELL) financed by the National Centre for Research and Development, under the Leader programme. I would like to thank Anna Matysiak and Monika Mynarska for their comments and suggestions on the earlier drafts of this work. I am also grateful to Krystyna Kupiszewska for language editing.

References

- Aassve A., Goisis A. & Sironi M. (2009). Happiness and childbearing across Europe. Bocconi University, Dondena Centre for Research on Social Dynamics, Working Paper No. 10.
- Akerlof G. A. (1980). A Theory of Social Custom, of Which Unemployment May be One Consequence, *The Quarterly Journal of Economics* 94(4): 749-75.
- Alesina A., Di Tella R. & McCulloch R. (2004). Inequality and Happiness: Are European and Americans different?, *Journal of Public Economics* 88(9-10): 2009-2042.
- Angeles L. (2009a). Children and life satisfaction. *Journal of Happiness Studies* 11(4): 523-538.
- Angeles L. (2009b). Erratum to children and life satisfaction. *Journal of Happiness Studies*.
- Becker G. S. & Gregg L. H. (1973). On the Interaction between the Quantity and Quality of Children. *The Journal of Political Economy* 81(2): S279-S288 Part 2: New Economic Approaches to Fertility.
- Becker G.S. (1973). A theory of marriage. Part I. *Journal of Political Economy* 81 (4): 813–846.
- Becker G.S. (1974). A theory of marriage. Part II. *Journal of Political Economy* 82 (2) S11–S26.
- Billari F.C. & Kohler H.P. (2009). Fertility and Happiness in the XXI Century: Institutions, Preferences, and their Interactions. Annual Meeting of the Population Association of America Conference Proceedings. April, 2009. Detroit, MI.
- Blanchflower D. G. & Oswald A. J. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics* 88(7-8): 1359-1386.
- Blanchfower D. G. (2008). International Evidence on Well-Being, NBER Working Paper 14318.
- Boivin J., Rice F., Hay D., Gordon H., Lewis A., van den Bree M. M. B., Thapar A. (2009) Associations between maternal older age, family environment and parent and child well-being in families using assisted reproductive techniques to conceive. *Social Science & Medicine* 68(11): 1948–1955.

Boldrin, M. & L. Jones (2002): Mortality, Fertility and Saving in a Malthusian Economy, *Review of Economic Dynamics* 5, 775-814.

Boldrin, M., De Nardi, Mariacristina & Jones, L. E. (2005). Fertility and Social Security NBER Working Paper No. W11146.

Bornstein M. H., Putnick D. L., Suwalsky J. T. D. & Gini M. (2006). Maternal chronological age, prenatal and perinatal history, social support, and parenting of infants. *Child Development* 77(4): 875–892.

Brien M. & Sheran M. (2003). The economics of marriage and household formation. In: Grossbard-Shechtman, S. (Ed.), *Marriage and the Economy. Theory and Evidence from Advanced Industrial Societies*. Cambridge University Press, New York and Cambridge.

Brynin M., Longhi, S. & Perez A.M. (2009). The Social Significance of Homogamy. ISER Working Papers 2008-32, Institute for Social and Economic Research.

Buckles K. (2008). Women, Finances, and Children Understanding the Returns to Delayed Childbearing for Working Women. *American Economic Review: Papers & Proceedings* 2008, 98:2, 403–407

Bures R. M., Koropecj-Cox Tanya & Loree M. (2009). Childlessness, Parenthood, and Depressive Symptoms Among Middle-Aged and Older Adults *Journal of Family Issues* 30 (5): 670- 687.

Charness G. & Dufwenberg M. (2006) Promises and Partnership. *Econometrica* 74(6): 1579-1601

Cherlin A. J. (2004). The Deinstitutionalization of American Marriage. *Journal of Marriage and Family* 66(4): 848-861.

Cigno, A. (1993): Intergenerational transfers without altruism. Family, market and state, *European Journal of Political Economy* 9, 505-518.

Clark A. E. & A. J. Oswald. (2002). Well-being in panels, Working Paper, University of Warwick, United Kingdom.

Clark A. E., Diener E., Georgellis Y. & Lucas R. E. (2008). Lags And Leads In Life Satisfaction: A Test Of The Baseline Hypothesis. *The Economic Journal* 118(529): F222–F243.

Connidis I.A. & McMullin J.A. (1993). To Have or Have Not - Parent Status and the Subjective Well-Being of Older Men and Women. *Gerontologist* 33(5):630-636.

Coombs R. H. (1991). Marital Status and Personal Well-Being: A Literature Review *Family Relations* 40(1): 97-102.

Costa P. T. & McCrae R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology* 38(4): 668-678.

Costa P. T. & McCrae R. R. (1988). Personality in adulthood: A six-year longitudinal study of self-reports and spouse ratings on the NEO personality inventory. *Journal of Personality and Social Psychology* 54: 853--863.

Daly M. & Wilson M.I. (2000). The evolutionary psychology of marriage and divorce. in L. J. Waite, C. Bachrach, M. Hindin, E. Thomson, and A. Thornton (eds.), *Ties that Bind: Perspectives on Marriage and Cohabitation*. New York: Aldine de Gruyter, pp. 91-110.

DeNeve K.M. & Cooper H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin* 124: 197-229

Di Tella R. & MacCulloch R. (2006). Some Uses of Happiness Data in Economics. *Journal of Economic Perspectives* 20(1): 25-46.

Diener E. & Larsen R. J. (1984). Temporal stability and cross-situational consistency of affective, behavioral, and cognitive responses. *Journal of Personality and Social Psychology* 47: 871-883.

Diener E. & Lucas R.E. (1999). Personality and subjective well-being. In: D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology*. Russell Sage Foundation New York, pp. 213-229

Diener E. (1984). Subjective well-being. *Psychological Bulletin* 95: 542-575.

Diener E., Emmons R. A., Larsen R. J., & Griffin S. (1985). The satisfaction with lifescale. *Journal of Personality Assessment* 49: 71-75.

Diener E., Gohm C.L., Suh E. & Oishi S. (2000). Similarity of the relations between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology* 31(4): 419-436

Diener E., Suh E. M., Lucas R. E., & Smith H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin* 125: 276-302.

Dolan P. & White M.P. (2007). How Can Measures of Subjective Well-Being Be Used to Inform Public Policy? *Perspectives on Psychological Science* 2(1): 71-85.

Dolan P., Peasgood T. & White M. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology* 29: 94–122.

Dykstra P.A. & Keizer R. (2009). The well-being of childless men and fathers in mid-life. *Ageing and Society* 29 (8): 1227-1242.

Easterlin R. (2004). The Economics of Happiness. *Daedalus* 133(2): 26-33.

Ehrhardt J. J., Saris W. E., & Veenhoven R. (2000). Stability of life-satisfaction over time: Analysis of change in ranks in a national population. *Journal of Happiness Studies* 1(2): 177-205.

Ehrlich, I. & J. Kim (2007): Social security, demographic trends: Theory and evidence from the international experience. *Review of Economic Dynamics* 10, 55-77.

Ekman P., Davidson R. & Friesen W. (1990). The Duchenne Smile: Emotional Expression and Brain Physiology II. *Journal of Personality and Social Psychology*. 58(2) 342–53.

Ellis BJ, Figueredo AJ, Schlomer GL. 2009. Fundamental dimensions of environmental risk: the impact of harsh versus unpredictable environments on the evolution and development of life history strategies. *Hum Nat*. 20:204–268.

Ermisch J. F. (1989) Purchased child care, optimal family size and mother's employment Theory and econometric analysis 2 (2): 79-102.

Evans M. D. R. & Kelley J. (2004). Effect of Family Structure on Life Satisfaction: Australian Evidence *Social Indicators Research* 69(3): 303-349.

Foster C. (2000). The Limits to Low Fertility: A Biosocial Approach *Source: Population and Development Review* 26(2): 209-234.

Frey B. S. & Stutzer A. (2002). What Can Economists Learn from Happiness Research? *Journal of Economic Literature* 40(2): 402-435.

Frey, B. S & Stutzer, A. (2000). Happiness, Economy and Institutions. *Economic Journal* 110(466): 918-38.

Gauthier A. (2007). The impact of family policies on fertility in industrialized countries: a review of the literature. *Population Research and Policy Review* 26(3), 323-346.

Geronimus AT. 2003. Damned if you do: culture, identity, privilege, and teenage childbearing in the United States. *Soc Sci Med.* 57: 881–893.

Giovannini E., Hall J. & d'Ercole. M. M. (2007). Measuring Well-being and Societal Progress. Organisation for Economic Co-operation and Development. Background paper for the conference 'Beyond GDP', 19-20 November, Brussels.

Hagestad G. O. & Call V. R. A. (2007). Pathways to Childlessness: A Life Course Perspective *Journal of Family Issues* 28: 1338-1361.

Hansen T., Slagsvold B. & Moum T. (2009). Childlessness and Psychological Well-Being in Midlife and Old Age: An Examination of Parental Status Effects Across a Range of Outcomes. *Social Indicators Research* 94(2): 343-362.

Hansen Th., Moum T. & Shapiro A. (2007). Relational and Individual Well-Being Among Cohabitors and Married Individuals in Midlife. Recent Trends From Norway. *Journal of Family Issues* 28(7): 910-933.

Haring-Hidore M., Stock W. A., Okun M. A. & Witter R. A. (1985). Marital Status and Subjective Well-Being: A Research Synthesis. *Journal of Marriage and Family* 47(4): 947-953

Hofferth S. L. (1987). The children of teen childbearers. In S. L. Hofferth, & C. D. Hayes (Eds.), *Risking the future: Adolescent sexuality, pregnancy and childbearing* (pp. 174–206). Washington, DC: National Academy Press.

Hoffman L. W. & Hoffman M. L. (1973). The Value of Children to Parents. In: Fawcett, J. T. (ed.) *Psychological Perspectives on Population* (pp. 19–76). New York: Basic Books.

Hoffman, L. & J. Manis. (1979). The value of children in the United States: A new approach to the study of fertility." *Journal of Marriage and the Family* 41(3):583-596.

Hofstede G. (1980) Culture and Organizations. *International Studies of Management & Organization* 10(4): 15-41.

Jaumotte F. (2003) Labour Force Participation of Women: empirical evidence on the role of policy and other determinants in OECD countries. *OECD Economic Studies* 51-108.

Johnson D. R. & Wu J. (2002). An Empirical Test of Crisis, Social Selection, and Role Expectations of the Relationship between Marital Disruption and Psychological Distress: A Pooled Time-Series Analysis of Four-Wave Panel Data. *Journal of Marriage and the Family* 64: 211-224.

Jones W.H. & Kugler K. (1993). Interpersonal correlates of the guilt inventory. *Journal of Personality Assessment* 61 (2) 246-258.

Joung I. M. A., Stronks K., van de Mheen, H., van Poppel, F.W. A., van der Meer J. B.W. & Mackenbach, J. P. (1997). The contribution of intermediary factors to marital status differences in self-reported health. *Journal of Marriage and the Family* 59: 476-490.

Kammann R., Christie D., Irwin R. & Dixon G. (1979). Properties of an inventory to measure happiness (and psychological health). *New Zealand Psychologist* 8: 1-2.

Kamp Dush C. M., & Amato P. R. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships* 22: 607–627.

Kaplan H. & J. Lancaster (2003). An evolutionary and ecological analysis of human fertility, mating patterns, and parental investment. In Wachter K. W. & Bulatao R. A. (eds.), *Offspring: Human Fertility Behavior in Biodemographic Perspective*. Washington, DC: The National Academies Press, pp. 170-223.

Kohler H.-P., Behrman J. R. & Skytthe A. (2005). Partner + children = happiness? An assessment of the effect of fertility and partnerships on subjective well-being in Danish twins. *Population and Development Review* 31(3): 407–445.

Kohlmann A. (2002). Fertility intentions in a cross-cultural view: The value of children reconsidered. MPIDR Working Papers Max Planck Institute for Demographic Research, Rostock, Germany.

Koropeckyj-Cox T. (1998). Loneliness and depression in middle and old age: Are the childless more vulnerable? *Journals of Gerontology: Social Sciences* 53B, S303-S312.

Koropeckyj-Cox T. (2002). Beyond Parental Status: Psychological Well-Being in Middle and Old Age. *Journal of Marriage and Family* 64 (4): 957-971.

Lavee Y., Sharlin S. & Katz R. (1996). The Effect of Parenting Stress on Marital Quality: An Integrated Mother-Father Model *Journal of Family Issues* 17: 114-135.

Layard (2007). Happiness and Public Policy: A Challenge to the Profession. In Bruno S. Frey and Alois Stutzer, eds. *Economics and Psychology: A Promising New Cross-Disciplinary Field*. Cambridge, Mass: MIT Press.

Lewinsohn P., Redner J. & Seeley J. (1991). The relationship between life satisfaction and psychosocial variables: New perspectives. In F. Strack, M. Argyle, & N. Schwartz (Eds.), *Subjective well-being* (pp.141-169). New York: Plenum.

Lucas R.E., Clark, A.E., Georgellis Y. & Diener E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology* 84 (3): 527-539.

Margolis R. & Myrskylä M. (2010). A global perspective on happiness and fertility, MPIDR Working Papers WP-2010-025, Max Planck Institute for Demographic Research, Rostock, Germany.

Marks N. F & Lambert J. K. (1998). Marital Status Continuity and Change Among Young and Midlife Adults: Longitudinal Effects on Psychological Well-Being. *Journal of Family Issues* 19:652-87.

Mastekaasa A. (1992). Marriage and Psychological Well-Being: Some Evidence on Selection into *Journal of Marriage and Family* 54(4): 901-911.

Matysiak, A. & Vignoli, D. (2010). The Impact of Family Status and Work-family Balance on Life Satisfaction in the EU. In: Kotowska I.E. (Ed.). *Family Life and Work. Analytical Report from the European Quality of Life Survey*. Dublin: European Foundation for Living and Working Conditions.

Musick K. & Bumpass L. (2006). Cohabitation, Marriage, and Trajectories in Well-Being and Relationships. NSFH Working Paper No. 93, Center for Demography and Ecology, University of Wisconsin-Madison.

Myers D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist* 55(1): 56- 67.

Nauck B. (2000). The Changing Value of Children - a Special Action Theory of Fertility Behavior and Intergenerational Relationships in Cross-cultural Comparison. Paper presented at the seminar "Low fertility, families and public policies", organised by the European Observatory on Family Matters in Sevilla, September 15-16, 2000.

Nettle, D. (2010). Dying young and living fast: Variation in life history across English neighbourhoods. *Behavioral Ecology* 21: 387-95.

Neyer G. & Andersson G. (2008). Consequences of Family Policies on Childbearing Behavior: Effects or Artifacts?," *Population and Development Review*, The Population Council 34(4): 699-724.

Nock S. L. (1995). A comparison of marriages and cohabiting relationships. *Journal of Family Issues* 16: 53-76.

Orth U., Berking M., & Burkhardt S. (2009). Self-conscious emotions and depression: Rumination explains why shame but not guilt is maladaptive. *Personality and Social Psychology Bulletin* 32: 1608-1619.

Pavot W. & Diener E. (1993b). A review of the satisfaction with life scale. *Psychological Assessment* 5: 164-172.

Pavot W. & E. Diener (1993a). The affective and cognitive context of self-reported measures of subjective well-being. *Social Indicators Research* 28: 1-20.

Plotnick R.D. (2009). Childlessness and the economic well-being of older americans. *Journal of Gerontology: Social Sciences*, 64B(6), 767-776, doi:10.1093/geronb/gbp023. Advance Access publication on May 11, 2009.

Promislow DEL, Harvey PH. 1990. Living fast and dying young: a comparative analysis of life-history variation amongst mammals. *Journal of Zoology* 220:417-437.

Pudney S. (2010). An experimental analysis of the impact of survey design on measures and models of subjective well-being. ISER Working Paper 2010-20.

Rodgers J. L., H.-P. Kohler, K. Kyvik & Christensen K. (2001). Behavior genetic modeling of human fertility: Findings from a contemporary Danish twin study. *Demography* 38(1): 29-42.

Rosati, F.C. (1996): Social security in non-altruistic model with uncertainty and Endogenous fertility. *Journal of Public Economics* 60, 283-294.

Sanchez L. & Thomson E. (1997). Becoming Mothers and Fathers: Parenthood, Gender, and the Division of Labor. *Gender and Society* 11(6): 747-772.

Sandvik E., Diener E. & Seidlitz L. (1993). The assessment of well-being: A comparison of self-report and nonself-report strategies. *Journal of Personality* 61: 317-342.

Schwartz S.H., Kim U., Triandis H.C., Kagitcibasi C., Choi S.C. & Yoon G. (1994). *Individualism and collectivism: Theory, method, and applications*. Sage Thousand Oaks, CA.

Schwarz N. & Strack F. (1990). Reports of subjective well-being: judgmental processes and their methodological implications. In: Kahneman, D., Diener, E., Schwarz, N. (Eds.), *Well-being: The Foundations of Hedonic Psychology*. Russell Sage Foundation, New York, 61–84.

Shedler J., Mayman M. & Manis M. (1993). The illusion of mental health. *American Psychologist* 48(11): 1117-1131.

Simon, R.W. (1992). Parental Role Strains, Salience of Parental Identity and Gender Differences in Psychological Distress. *Journal of Health and Social Behavior* 33(1):25-35.

Soons J. P. M. & Kalmijn M. (2009). Is Marriage More Than Cohabitation? Well-Being Differences in 30 European Countries. *Journal of Marriage and Family* 71(5): 1141-1157.

Soons J. P. M. & Liefbroer A. C. (2008). Together is better? Effects of relationship status and resources on young adults' well-being. *Journal of Social and Personal Relationships* 25(4): 603-624.

Stack S. & Eshleman J. R. (1998). Marital Status and Happiness: A 17-Nation Study, *Journal of Marriage and Family* 60 (2) 527-536.

Stanca L. (2009). *Suffer the Little Children: Measuring the Effects of Parenthood on Well-Being Worldwide*. Working Papers 173, University of Milano-Bicocca, Department of Economics.

Strohschein L., McDonough P., Monette G. & Shao Q. (2005). Marital transitions and mental health: Are there gender differences in the short-term effects of marital status change? *Social Science & Medicine* 61 (11): 2293-2303

Stutzer A. & Frey B. S. (2006). Does marriage make people happy, or do happy people get married? *The Journal of Socio-Economics* 35: 326–347.

Toulemon L. (1996). Very Few Couples Remain Voluntarily Childless. *Population: An English Selection* 8: 1-27

Triandis H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.

Triandis H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, 51, 407-415.

Triandis H. C., Botempo R., Villareal M.J., M. Asai, & Lucca N., (1988). Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology* 54: 323–338.

Turley L. R. N. (2003) Are Children of Young Mothers Disadvantaged Because of Their Mother's Age or Family Background? *Child Development* 74 (2): 465-474.

Umberson D. & Gove W. (1989). Parenthood and Psychological Well-Being Theory, Measurement, and Stage in the Family Life Course. *Journal of Family Issues* 10(4): 440-462.

Umberson D. (1987). Family status and health behavior: Social control as a dimension of social integration. *Journal of Health and Social Behavior*, 28, 306-319. ;

Umberson D. (1992). Gender, marital status and the social control of health behavior. *Social Science and Medicine* 34: 907-917.

Veenhoven R. (1993). *Happiness in Nations, Subjective Appreciation of Life in 56 Nations 1946-1992*, Rotterdam: Erasmus University.

Waldijk, K. (2005). More or less together: Levels of legal consequences of marriage, cohabitation and registered partnership for different-sex and same-sex partners: A comparative study of nine European countries. Working Paper No. 125. Paris: National Institute for Demographic Studies.

Waite L. J. & Joyner K. (2001). Emotional satisfaction and physical pleasure in sexual unions: Time horizon, sexual behavior, and sexual exclusivity. *Journal of Marriage and Family* 63: 247 – 264.

Weiss Y. (1993). The formation and dissolution of families: Why marry? Who marries whom? And what happens upon divorce. *Handbook of Population and Family Economics*, in: M. R. Rosenzweig & Stark, O. (ed.), *Handbook of Population and Family Economics*, edition 1, volume 1, chapter 3, pp. 81-123 Elsevier.

Williams K. (2003). Has the future of marriage arrived? A contemporary examination of gender, marriage, and psychological well-being. *Journal of Health and Social Behavior* 44: 470–487.

Wilson M, Daly M. 1997. Life expectancy, economic inequality, homicide, and reproductive timing in Chicago neighbourhoods. *British Medical Journal* 314:1271–1274.

Zhang Z. & Hayward M. D. (2001). Childlessness and the Psychological Well-Being of Older Persons *Journal of Gerontology: Social Sciences* 56(5): S311-S320

Zimmermann A. C. & Easterlin R. A. (2006). Happily ever after? Cohabitation, marriage, divorce, and happiness in Germany. *Population and Development Review* 32(3): 511–528.