

The London School of Economics and Political Science

**Towards a Sociology of Happiness: Examining social capital  
and subjective well-being across subgroups of society**

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and Political Science for the degree of Doctor of Philosophy.

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## **Declaration**

I certify that the thesis I have presented for examination for the Ph.D. degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

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## **Abstract**

This dissertation contributes to a Sociology of Happiness by examining the social context of subjective well-being. It follows in Emile Durkheim's footsteps, whose study *Le Suicide* initially proposed that being connected is beneficial for human beings. The empirical evidence on the relationship between social capital and subjective well-being has indeed grown considerably over the last years. However, the academic literature has a major shortcoming, as studies usually assume the importance of social capital for subjective well-being to be exactly the same between individuals. Interestingly, though, sociological theory gives reasons to expect the association between the two concepts to vary between societal subgroups based on the idea that people have different roles and find themselves in different circumstances. Hence, this thesis responds to a need to examine a new level of complexity and fills a research gap by investigating how social capital is correlated in different ways with life satisfaction by gender, age, parental status, and marital status. OLS and ordered logit regression analyses are conducted in order to systematically examine slope heterogeneity, using data from the European Social Survey for the UK. It turns out that the social context of well-being varies considerably between the subgroups studied here. For example, while among childless women volunteering is positively and very strongly associated with subjective well-being, the relationship is slightly negative for mothers.

Consequently, this dissertation adds significant value to the happiness literature by looking beyond population means when studying the relationship between certain explanatory variables and a well-being response variable. Moreover, the thesis contributes to a much-needed theory building in research on subjective well-being by resorting to sociological theories. Important implications for current policy issues around well-being arise from the study, and it paves the way for a new wave of research which goes beyond a unitary 'happiness formula'.

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C.K.

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# 1. Introduction

## 1.1 Aims of this thesis

Research on subjective well-being (SWB), i.e. people's evaluations of their lives (Diener et al., 1999), is moving ever further into the mainstream of various academic disciplines, as well as increasingly catching the attention of policymakers and the media. What started on the fringes of psychology in the 1960s with a few groundbreaking empirical studies into the correlates of self-reported happiness and life satisfaction has today become a reputable field of study which is beginning to influence the highest levels of politics in several countries.

For instance, at the end of 2010 the British Prime Minister David Cameron proclaimed that “from April [2011], we’ll start measuring our progress as a country, not just by how our economy is growing, but by how our lives are improving; not just by our standard of living, but by our quality of life” (Cameron, 2010a: 1). Emphasising the increasingly important role of SWB indicators, he commissioned the UK Office for National Statistics (ONS) to incorporate such measures into their Integrated Household Survey with an annual sample of 200,000 Britons.

Not long before, the French president Nicolas Sarkozy had convened a roundtable including five Nobel laureates to, among other things, examine how quality of life can be measured as a basis for public policy in the 21<sup>st</sup> century. The *Commission on the Measurement of Economic Performance and Social Progress* (also known as the *Stiglitz-Sen-Fitoussi Commission*, or simply the *Stiglitz Commission*) concluded in their main recommendations that measures of “subjective well-being provide key information about people’s quality of life” (Stiglitz et al., 2009: 16).

The high relevance of SWB in today’s public discourses is based on the fact that a lot of research evidence has accumulated over the past 40 years. Studies on SWB are part of the larger academic area of social indicators and quality of life (QOL) research. This field has - since the 1960s and 70s - been developing theoretical models and empirical analyses on levels, changes, and causes of human well-being (Noll, 2004). It comprises “objective indicators”, such as literacy rates or life expectancy, as well as “subjective indicators”, such as a respondent’s self-reported life satisfaction (Rapley, 2003). The

contribution of SWB research is to examine “empirically measurable conditions, requirements, manifestations and consequences of happiness” (Bellebaum, 2002: 13).

The academic debate usually takes place in dedicated QOL journals such as “Social Indicators Research”, “Journal of Happiness Studies”, or “Applied Research in Quality of Life”, as well as in field journals in psychology and economics. An umbrella organisation called the International Society for Quality of Life Studies unites economists, psychologists, sociologists, political scientists, and others in this interdisciplinary endeavour. Comprehensive, recent introductions to SWB and happiness research were written, for instance, by Frey & Stutzer (2002), Huppert et al. (2005), Kahneman et al. (1999), and Layard (2005).

Research in this area is growing rapidly these days: in the 1960s, articles on mental illness still outnumbered those on positive mental states by 17:1 (Myers & Diener, 1995). Following Wilson’s (1967) seminal review on the correlates of avowed happiness, however, more than 300 studies on SWB had been conducted by the end of the 20th century (Diener et al., 1999). Today, there is “a large and rapidly growing body of research that examines which factors are associated with self-reported happiness” (Donovan et al., 2002). As Clark et al. (2008) show, 614 articles on SWB had been published between 1960 and 2006, of which 59% were published after 2000. That is to say that at the start of the 21<sup>st</sup> century, on average, more than one article on this issue gets published every week.

However, there are a number of key challenges at this point in its history for SWB research that need to be overcome in the medium term in order for this field to remain academically rigorous and to sustain a meaningful impact beyond the ivory tower. This dissertation will address five of those challenges and try to make an initial, modest, but important contribution towards meeting them. In short, those challenges and the directly resulting aims for this dissertation are as follows.

1. *Examining slope heterogeneity*: A number of robust correlates of SWB have been established in decades of research. These will be reviewed and assessed in the dissertation (chapter 2.1). It will become evident that the research literature on SWB has for the overwhelmingly large part tried to find a unitary ‘happiness formula’ consisting of a number of variables for entire national, sometimes even

international samples. While this first step was a great advancement of the knowledge on well-being, and it was at the time crucial to statistically flesh out the main drivers of average happiness, such an approach is based on a very bold assumption. The basic conclusion from studies which focus on societal averages is that the same things (e.g. getting married, civic engagement, socialising a lot) will make everyone equally happy. Thus, such an approach ignores the crucial fact that utility functions may differ between individuals and groups, as people - at least to a certain extent - may have different tastes and find themselves in different circumstances.

Consequently, this dissertation will go beyond analysing the average impact of a certain set of explanatory variables on an outcome variable. It will contain a more nuanced analysis that does not homogenise entire national or global populations, but that will take into account slope heterogeneity in the correlates of SWB for certain population subgroups based on sociological theory. This thesis is therefore hoping to be at the forefront of a new wave of SWB research that looks beyond the average case.

Such an approach is particularly important with regard to the policy implications from well-being research. More precisely, a certain policy to foster an explanatory variable that is thought to be positively related to life satisfaction may affect societal subgroups in different ways and therefore be less effective or even counter-productive for many people. Thus, it is crucial for policymakers to examine potential outcomes for different groups as carefully as possible before making rash decisions.

For example, one of the flagship policies of the current British government is its 'Big Society Agenda' which aims to "encourage people to take an active role in their communities", e.g. by fostering civic engagement (Cabinet Office, 2010: 1). In this context, the Prime Minister gave his interpretation of the SWB research literature which underlies the policy in March 2010:

"If you actually think that well-being is important, all the evidence shows that societies in which people feel engaged, people feel active, people feel they have control, are not just good societies. They are societies in which people feel happier" (Cameron, 2010b).

This dissertation will take a closer look at the empirical data in this regard, though. If it turns out that, for instance, civic engagement is more strongly associated with life satisfaction for some, and less strongly or even negatively for others, this would have profound implications for how public policies in this area should be designed.

2. *Developing theoretical frameworks:* The field of SWB research, in its current state, is largely “over-researched and under-theorised” (Reeves, 2009: 24). Some have even concluded that “SWB is often - and appropriately - viewed as an atheoretical research topic” (George, 2010: 332). In other words, while a range of empirical findings on the correlates of subjectively reported happiness have been dutifully collected over decades, solid theory building has often been neglected. It is crucial, however, to draw the various pieces of evidence together in order to formulate viable theoretical frameworks. Rigorous academic research must always be grounded in theoretical foundations. In fact, sociology is a science rich in useful approaches for the study of well-being. This potential ought to be exploited.

This thesis will therefore draw on sociological theories as a basis for its empirical analyses. More precisely, theoretical frameworks ought to be developed at the onset of each empirical chapter. In addition, the second chapter of the dissertation will review the existing evidence on the social context of SWB (especially section 2.3). In doing so, it will for the first time comprehensively draw together the various theoretical approaches and empirical findings in this regard to provide a full overview and critical assessment in order to highlight remaining research gaps.

3. *Advancing the debate on social capital (SC):* SC is the second major concept (next to SWB) dealt with in this thesis. It is defined as “connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000: 19). The concept has gained immense popularity in the social sciences over the past two decades – similar to the aforementioned research literature on SWB. Before 1981, only 20 contributions dealt with SC. Following the seminal studies of Bourdieu (1986), Coleman (1988) and Putnam et al. (1993) this number grew to over 100 between 1991 and



1995. Finally, by the end of the last century, there were more than 1,000 articles focusing primarily on SC (Winter, 2000). By today the concept has reached over 15,000 citations in total (Woolcock, 2010).

A debate in this area about the precise nature and effects of SC, however, remains unresolved. On the one hand, some scholars emphasise the concept's positive characteristics and outcomes (e.g. Helliwell & Putnam, 2004; Putnam, 2000; Putnam et al., 1993). This school of thought claims that people with more SC are - *ceteris paribus* - more likely to be "housed, healthy, hired and happy" (Woolcock, 2001: 12). Different scholars, on the other hand, draw more attention to the downsides of the concept (e.g. Portes, 1998; Portes & Landolt, 1996). According to them, accumulating SC may result in a number of potentially very harmful outcomes, such as exclusion of outsiders, excess claims on group members, restrictions on individual freedom, and downward levelling norms (*ibid.*).

This dissertation will aim to further illuminate the debate by examining how SC is related in different ways to the well-being of various societal subgroups. Such an approach will allow important conclusions to be drawn about the nature of SC and its outcomes under differing circumstances.

4. *Revisiting the relationship between gender and parenthood with subjective well-being:* For certain standard explanatory variables in SWB research the existing evidence is quite contradictory and unclear. In particular, the role of gender and parenthood in relation to SWB is somewhat disputed among scholars and lay people alike. In a recent, comprehensive review of the literature on SWB, Dolan et al. (2008) report that the evidence of having children is mixed with some studies showing a positive effect on SWB, while other studies found no effect or a negative one. The latter finding especially repeatedly puzzles audiences for whom their children are one of the major sources of happiness in their lives. A similarly mixed picture emerges from Dolan et al.'s discussion of gender. While some studies report women to have higher life satisfaction levels, others do not find any gender differences (*ibid.*).

Consequently, this dissertation will shed light on these unresolved issues by taking the analyses to a more complex level. More precisely, a third variable (i.e. SC) will be introduced to the study of gender and parenthood and their association with SWB. Such a procedure will enable us to distinguish under which (SC) circumstances gender and parenthood have what kind of statistical relationship with life satisfaction. This will be an important addition to the research area with particular regard to those two variables and their largely unclear relationship with well-being.

5. *Towards a Sociology of Happiness*: The study of SWB has been widely embraced in psychology and economics, but it is yet to enter the mainstream in sociology. While within the first discipline (psychology) a school of 'Positive Psychology' was able to emerge to complement the study of depression and other negative states with analyses of what makes people satisfied with their lives (Seligman & Csikszentmihalyi, 2000), within the second discipline (economics) a range of studies in the field of 'Happiness Economics' have been produced (Clark et al., 2008).

Happiness, however, is not yet a big topic in sociology and it is not mentioned in sociological textbooks (a rare exception being Nolan & Lenski, 2004), as criticised by Veenhoven (2008). Indeed, the sociologist Veenhoven argues that the widespread absence of happiness studies in sociology was due to a number of reasons, which are pragmatic (i.e. sociologists focus on people's behaviour rather than on their emotions), ideological (i.e. there is a widespread tendency within the discipline to prefer objective well-being as measured by, for instance, social equality), and theoretical (i.e. sociologists tend to think of subjective well-being as a 'whimsical state of mind') (ibid.: 44).

As a consequence it may be little surprising that the most influential introductory books on happiness research of the last decade were written by economists and psychologists, most notably Frey & Stutzer (2002), Huppert et al. (2005), Kahneman et al. (1999), and Layard (2005). At the same time, sociological perspectives are still too few in the academic debate on SWB, despite the fact that the discipline would have a lot to offer. First, there are a number of social correlates of SWB that are not simply reducible to economic factors or

individual psychological processes. Second, and perhaps more importantly, sociology is well-suited to counteract the problem of under-theorisation in happiness research, as sociology is an academic discipline from which important theories relevant for well-being can be drawn. Therefore, this thesis aims to bring both SWB research and sociology together by illustrating a sociological approach to the study of positive outcomes such as life satisfaction. Hence, this analysis will also serve as an example of what an emerging ‘Sociology of Happiness’ can look like.

The dissertation will achieve its aims by thoroughly examining the social context of well-being. The main subject of study is therefore the relationship between SC and SWB. While important in its own right, in some sense this particular focus moreover acts as a kind of case study for some of the broader objectives outlined above (e.g. objective 1 or 5).

But why study the *social* context of well-being in particular? The Beatles song “With a little help from my friends” illustrates how our well-being can be enhanced through social relationships. Leading happiness researchers have indeed repeatedly drawn attention to “the most important source of happiness, which is the quality of human relationships” (Layard, 2009: 21) in recent years.

Whether in day-to-day interactions or in times of distress our social environment can be a vital source of support. In fact, most social science research has shown a positive effect of SC on SWB. In brief, the idea that social integration fosters well-being goes back to Durkheim (1997 [1897]), and has been reiterated more recently by psychology (e.g. Myers, 1999), social production function theory (Ormel et al., 1999), and the network theory of SC (Lin, 2001a, 2001b). In modern happiness research, a range of studies have empirically confirmed the link between SC and SWB (Bjørnskov, 2008; Helliwell, 2003; Helliwell & Putnam, 2004; Kroll, 2008).

However, the existing studies tend to homogenise entire national populations and assume that SC basically matters in the same way for all societal groups. Hence, there remains a large research gap around how various facets of SC affect the SWB of subgroups differently. This analytical deficiency exists despite the fact that sociological theory demands such a more differentiated analysis. Consequently, this thesis

investigates the research question: how far does the social context of well-being vary by gender, age, parental status and marital status? It will do so by analysing the relationship between trust, formal SC (i.e. civic engagement), and informal SC (i.e. socialising) on the one hand, and life satisfaction on the other hand, using UK data from the third round (2006) of the European Social Survey (ESS).

This dissertation thereby hopes to add to the state of knowledge by drawing a nuanced picture of how individual level SC is associated in different ways with life satisfaction for certain societal subgroups. By examining slope heterogeneity, it challenges the currently held mainstream assumption in the literature that the relationship between SC and SWB is identical for all members of society. Thus, it responds to growing demands for more research into who benefits most from SC (Kawachi & Berkman, 2001: 458; Meier & Stutzer, 2008: 53; Newton, 2007: 12). Furthermore, it will do so by including several measures of SC in order to capture the whole construct rather than focussing e.g. on volunteering only. At the same time, this approach serves to counteract the widespread unawareness of the happiness literature regarding the distribution and determinants of well-being across different population sub-groups (as criticised by Bjørnskov et al., 2008: 121; Dolan et al., 2006: 76).

## **1.2 Research questions**

In order to reach the aims outlined above, a range of research questions will be answered by discussing existing evidence, developing theoretical frameworks, and by conducting original empirical analyses. In sum, questions 1 to 3 will be answered by reviewing existing studies, while questions 4 to 14 will be answered by producing new (mainly empirical) contributions to the state of research.

### **Theoretical part:**

1. What is SWB and what influences it?
2. What is SC?
3. How is SC associated with SWB?
4. What are the gaps in the existing literature and why do they need to be filled?

### **Empirical part:**

5. How does the relationship between SC and SWB differ by *gender*?

6. How does the relationship between SC and SWB differ between *age groups*?
7. How does the relationship between SC and SWB differ by *parental status*?
8. How does the relationship between SC and SWB differ by *marital status*?
9. How does the relationship between SC and SWB differ by *gender and parental status*?
10. How does the relationship between SC and SWB differ by *gender and age*?
11. How does the relationship between SC and SWB differ by *age and parental status*?
12. How does the relationship between SC and SWB differ by *marital status and age*?
13. How does the relationship between SC and SWB differ by *marital status and parental status*?
14. How does the relationship between SC and SWB differ by *marital status and gender*?

### **1.3 Structure**

The thesis will proceed in the following steps to answer the research questions outlined earlier. Chapter 2 presents the general state of the knowledge about the two concepts studied here (SWB in section 2.1, and SC in section 2.2), as well as the theoretical links and mechanisms that connect the two (section 2.3). As a result of this review, research gaps will be shown in order to develop and justify the research questions in more detail, and to specify the particular contribution of this thesis to the state of knowledge more extensively (section 2.4). Chapter 3 will elaborate on the methods used to answer the research questions and fulfil its aims. Empirical analyses are then conducted in chapters 4 to 8.

The empirical analyses will look at *levels* of SC and SWB across societal subgroups, as well as examine *slope heterogeneity* in the association between the two concepts across the respective subgroups. Each empirical chapter will start off with a theoretical framework as to why the relationship between SC and SWB can be assumed to differ by the variables (i.e. subgroups) studied in the respective chapters. Finally, the results will be discussed in a concluding chapter (9), which summarises the added value of this dissertation to the state of the knowledge, relates the findings back to theory, explores

the limitations, outlines areas for further research, and elaborates on the policy implications.

## 2. Theoretical background

### 2.1 Subjective well-being

#### 2.1.1 *Introducing quality of life research*

*Gross National Product “counts air pollution and cigarette advertising, [...] the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. [...] Yet [it] does not allow for the health of our children, the quality of their education, or the joy of their play [...] the beauty of our poetry or the strength of our marriages [...] it measures everything, in short, except that which makes life worthwhile.”*

Robert Kennedy, 1968

In order to locate this thesis in the wider framework of past and current research, the following chapter will introduce QOL studies as a field. It will do so by briefly presenting its main components and schools of thought. The first section (2.1.1) concludes by discussing so-called “objective” indicators of well-being. Out of their shortcomings, the study of SWB has evolved, which will be the subject of the subsequent section (2.1.2). Thus, the following discussion also serves to justify the choice of indicators used in this thesis.

QOL research is an interdisciplinary endeavour to scientifically measure the well-being (in terms of levels, changes, and distribution) of individuals, regions, and societies (Glatzer, 2004; Noll, 2004; Rapley, 2003). Historically, the rise of QOL research was fuelled by a need to examine progress in broader terms than by simply looking at a nation’s Gross Domestic Product (GDP) (Noll, 2004). GDP measures all goods and services produced in an economy within a year. Despite the fact that its inventor, Simon Kuznets, never meant GDP to be anything but an indicator of economic production after the Great Depression, the metric has increasingly been treated as an indicator for the well-being of nations. GDP indeed has a range of important advantages: it captures entities measured in different units and summarises them in one single monetary figure. Furthermore, it can easily be compared across nations once it has been divided by the number of inhabitants (per capita) and adjusted for power purchasing parity. Finally, the assumption behind using this metric to assess well-being is that the higher the GDP, the better are people able to satisfy their needs (Stiglitz et al., 2009).

The Stiglitz Commission, however, has recently given another summary of the many long-standing critiques of GDP in this regard, which the quotation by Robert Kennedy at the beginning of this section already hinted at. In their final report (Stiglitz et al., 2009), the commission first of all points out that GDP does not take into account the distribution of income and inequalities in society. Thus, it would be wrong to assume that if this aggregate number rises, everybody is getting richer. In the US, for instance, GDP per capita has increased almost steadily over the past decade before the recession of the 2000s, while median household income has fallen and the income gap between rich and poor has widened. Therefore, one cannot tell from looking at GDP if the money is spent on actually improving people's lives, and whose lives in particular.

Second, GDP takes into account a number of factors that can be assumed to decrease human happiness, while important drivers of well-being are ignored. In particular, traffic jams, natural disasters, and the clean-up after the 2010 BP oil spill will have had a positive effect on GDP. At the same time, non-market activities such as cleaning, cooking, childcare, or indeed leisure time are not taken into account. Activities of household production, however, are likely to be equal to 30-40% of GDP and play a crucial role for people's well-being.

Third, issues of sustainability are not considered by GDP. The metric does not account for the depletion of natural resources or capital depreciation. Instead, GDP growth may lead to environmental damage. Moreover, a case could be made that the recent global financial crisis was partly brought about by chasing short-term profit and GDP growth.

In sum, GDP is a valid measure to assess market based economic activity and wealth creation as it can tell us if production is growing and whether spending on goods and services is increasing or falling. However, for the aforementioned reasons it is not suitable to measure well-being. In fact, this issue is of huge importance for the progress of our societies, since "what we measure affects what we do; and if our measurements are flawed, decisions may be distorted" (Stiglitz et al., 2009: 1). Therefore, the commission advocates a paradigm shift away from measuring economic production towards assessing people's well-being.

Although the conclusions and recommendations of the Stiglitz Commission were invaluable in generating political momentum, they contain hardly any new aspects from



a social indicators research perspective (Maggino & Ruviglioni, 2011; Michalos, 2011; Noll, 2011). Indeed, already in the 1960s and 70s, a “social indicators movement” had suggested to regularly monitor the well-being of societies<sup>1</sup> (Noll, 2004). Social indicators are defined as “statistics that usefully reflect important social conditions and that facilitate the process of assessing those conditions and their evolution” (United Nations, 1994, as quoted in Noll, 2004: 4). The movement paved the way for many theoretical models on human well-being to be developed and lots of empirical analyses to be conducted over the last decades in academic QOL research.

The mainstream opinion in this movement is usually that a *holistic* QOL measurement traditionally involves objective indicators, as well as subjective social indicators, as outlined by Felce & Perry (1993).

“Quality of life is defined as an overall general well-being which comprises objective descriptors and subjective evaluations of physical, material, social and emotional well-being together with the extent of personal development and purposeful activity all weighted by a personal set of values” (Felce & Perry, 1993: 13).

Such measurements can take many forms. Historically, the Scandinavian tradition of welfare research would focus on objective indicators of well-being (see for example Erikson, 1974, 1993; Uusitalo, 1994), whereas the American school of thought (see e.g. Andrews & Withey, 1976; Campbell et al., 1976) preferred subjective assessments. So while the former argues that a high level of living is defined as the “individual’s command over resources [...] such as income, wealth, knowledge, skills and health” (Erikson & Aberg, 1987: 3), the latter emphasises that the “quality of life must be in the eye of the beholder” (Campbell, 1972: 442). Examples of indicators used by the two branches are pictured in table 1.

In a similar way, the Stiglitz Commission proposed 8 dimensions of quality of life that national statistical offices, academics, and policymakers should consider: material living standards, health, education, personal activities including work, political voice and governance, social connections and relationships, environment, and insecurity

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<sup>1</sup> Also, many countries have implemented comprehensive systems of social monitoring which even the Stiglitz Commission partly overlooked in their report (Noll, 2002, 2004, 2011).

(economic and physical). All these dimensions should ideally be assessed using objective as well as subjective measures, according to the commission.

**Table 1: Objective and subjective social indicators. (Source: Rapley, 2003: 11).**

Frequently used objective social indicators (represent social data independently of individual evaluations):

- Life expectancy
- Crime rate
- Unemployment rate
- Gross Domestic Product
- Poverty rate
- School attendance
- Working hours per week
- Perinatal mortality rate
- Suicide rate

Subjective social indicators (individual's appraisal and evaluation of social conditions):

- Sense of community
- Material possessions
- Sense of safety
- Happiness
- Satisfaction with "life as a whole"
- Relationships with family
- Job satisfaction
- Sex life
- Perception of distributional justice
- Class identification
- Hobbies and club membership

Due to the long-standing debate in QOL about the two types of indicators, it seems appropriate to briefly review the nature of objective indicators before taking a detailed

look at subjective ones in the following section. Objective indicators all share the characteristic that “the judgement of happiness is made according to external rules” from outside, by the researcher (Frey & Stutzer, 2002: 6). Objective indicators of well-being are still widely considered as a more accurate basis when policy decisions are made. For instance, the United Nations Development Programme designed the Human Development Index, consisting of income, education, and health measures to assess the well-being of nations (UNDP, 2010). Such objective measurements have the advantage of being easily comparable across observations. They do not suffer from social desirability biases or ordering effects, as social surveys can, when enquiring about people’s happiness. Instead, objective indicators are widely considered by policymakers to be hard facts (Frey & Stutzer, 2002; Noll, 2004; Rapley, 2003).

However, some researchers criticise the use of objective measures as (sole or main) assessments of human well-being (e.g. Layard, 2005). A significant weakness of objective indicators is that they contain a strong normative judgement by the researcher about what is “the good life”. Observations are measures in terms of their compliance with an outside ideal. Consequently, “in order to measure the quality of life, one must have a theory of what makes up a good life” (Cobb, 2000: 6). In sum, the use of objective measurements for QOL assessments requires consensus in a society about three questions: which dimensions of a society should be studied, what would be bad and what would be good conditions to live in, and what goals should society develop towards (Noll 2004). A consensus may be out of reach especially if the normative idea of “the good society” is culturally (or even sub-culturally) relative, or if it is a matter of political and ideological opinion (Rapley, 2003).

Subjective indicators, on the other hand, allow the respondents to decide for themselves what makes them happy, and whether they think they are satisfied with their lives. This approach is based on the idea that “it can be assumed that [people themselves] are the best judges of when they are happy and when they are unhappy” (Frey & Stutzer, 2002: 4).

## 2.1.2 *Indicators and determinants of subjective well-being*

*“Man does not strive after happiness; only the Englishman does that.”*

*Friedrich Nietzsche*

### **What is subjective well-being?**

Even though Nietzsche was sceptical that happiness is such an important issue to most of mankind, many social scientists, English or otherwise, have researched it over the past 40 years. As illustrated above, the QOL of an individual or a country can be assessed by using ‘objective indicators’ of well-being. However, assessing people’s well-being simply by noting their living conditions has major disadvantages. This method neglects the fact that income, for instance, is a crude measure; and furthermore it is only a means, not an end in itself (Diener & Seligman, 2004; Nussbaum & Sen, 1993). Also, such assessments contain a normative judgement by the researcher about what would be good and bad conditions to live in. Moreover, such figures do not reveal any information about how people perceive and evaluate their living conditions (Noll, 2004; Rapley, 2003). As a result of the shortcomings of objective indicators for the QOL, a growing number of researchers have turned to SWB<sup>2</sup> (Huppert et al., 2009). The term SWB, which is often used synonymously with ‘happiness’ and ‘life satisfaction’ in the literature (Frey, 2008),<sup>3</sup> is defined as:

“people’s evaluations of their lives, and [it] includes variables such as life satisfaction, the frequent experience of pleasant emotions, the infrequent experience of unpleasant emotions, satisfaction with domains such as marriage and work, and feelings of fulfilment and meaning” (Diener & Oishi, 2004: 1).

In fact, the idea of assessing human well-being by simply asking people about the state of their lives goes back to Aristotle (384 BC – 322 BC), who proposed that:

“We must therefore *survey* what we have already said [about what the good life objectively consists of], bringing it to the test of the facts of life, and if it harmonises with the facts we must accept it, but if it clashes with them we

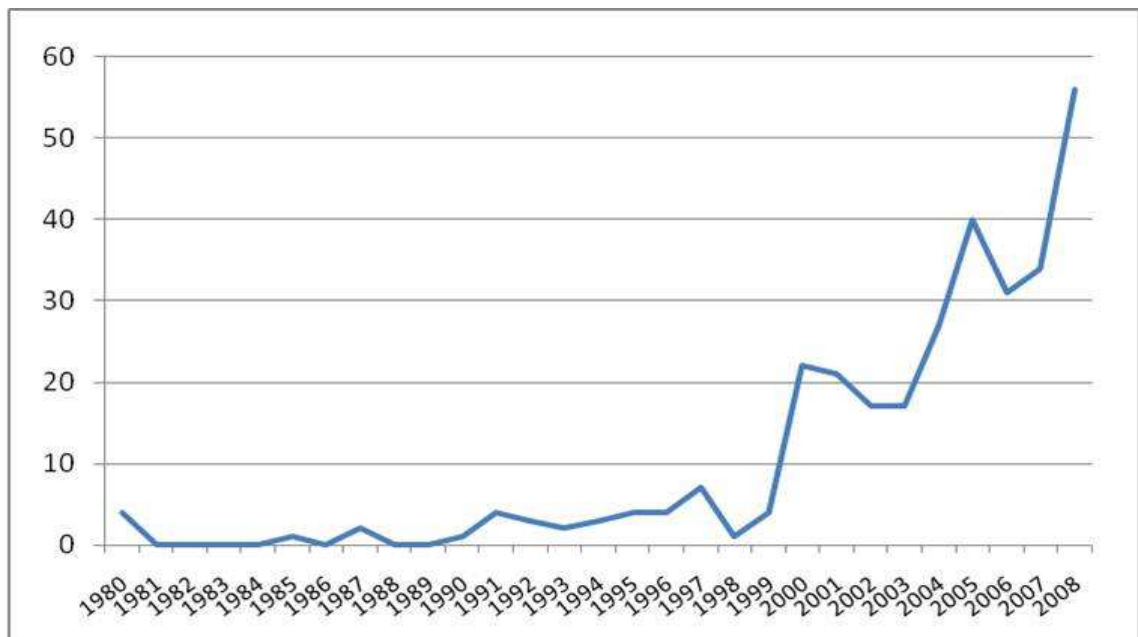
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<sup>2</sup> It shall be acknowledged that, as indicated earlier, a holistic QOL assessment should ideally comprise subjective, as well as objective indicators. This thesis, however, will focus more thoroughly on the strand of literature dealing with SWB, as its topic is not overall QOL.

<sup>3</sup> In economics, the notion of SWB has previously gained prominence under the term “utility”, as established by Jeremy Bentham (1748-1832) and John Stuart Mill (1806-1876) (Frey, 2008; Frey & Stutzer, 2002; Nussbaum & Sen, 1993).

must suppose it to be mere theory” (Nicomachean Ethics, Book 10, 1179: 23  
as quoted in Helliwell, 2003: 333).

Following the pioneer studies on SWB in the 1960s and 70s (Andrews & Withey, 1976; Campbell et al., 1976; Wilson, 1967), a rich body of literature has arisen (Dolan et al., 2008; Rapley, 2003). The number of studies is growing fast, as indicated in the introduction of this dissertation; Chapple’s (2009) visualisation of the growing research literature further illustrates this trend (figure 1).



**Figure 1: Number of published journal articles with “happiness”, “subjective well-being” or “life satisfaction” in the title, 1980-2008 (EconLit). (Source: Chapple, 2009: 8).**

The concept of SWB has been formalised by Blanchflower & Oswald (2000) as pictured in figure 2. In their “utility function”,  $r$  is the self-reported SWB score of a respondent on an ordered scale. It consists of a range of components: the true level of the respondent’s well-being ( $u$ ), which in turn is made up of income ( $y$ ), a set of demographic and personal characteristics ( $z$ ), and a time trend ( $t$ ). Thus, ( $h$ ) is a non-differentiable step function relating actual well-being to reported well-being. Finally, an error term ( $e$ ) covers all possible measurement errors and biases as discussed later in this chapter.

$$r = h(u(y, z, t)) + e$$

r =	self-reported score of well-being as expressed by the respondent
h =	function relating actual well-being to reported well-being
u =	the respondent's actual well-being
y =	real income
z =	a set of demographic and personal characteristics
t =	time period
e =	error term, representing factors that influence the relationship between actual and reported well-being

**Figure 2: Equation of SWB. (Source: Blanchflower & Oswald, 2000: 3).**

### **How is 'happiness' measured?**

In surveys, SWB is often measured by asking people to evaluate their life or a certain life domain (e.g. work, family) using multiple-item or single-item questions<sup>4</sup>. Possibly the most widespread single-item question is: "All things considered, how satisfied are you with your life as a whole these days?" (see e.g. World Values Survey). Respondents can then rate themselves on a scale, e.g. from 0 (completely dissatisfied) to 10 (completely satisfied). Alternatively, many surveys also ask: "Taken all together, how happy would you say you are? Very happy, quite happy, not very happy or not at all happy?"

In addition, more complex multiple-item measures of SWB have also been developed by psychologists, such as the "Satisfaction with Life Scale" (Diener et al., 1985; Pavot & Diener, 1993), which allows respondents to rate themselves on an agreement scale from 1 to 7 on five items such as "I am satisfied with my life" or "If I could live my life over, I would change almost nothing". Other prominent multiple-item scales to measure SWB include the "Affect Balance Scale" (Bradburn, 1969), the "Positive and Negative Affect Schedule" (PANAS) (Watson et al., 1988), the "Pleasant Affect / Unpleasant Affect Scale" (Diener & Emmons, 1985), and the General Health Questionnaire (GHQ)

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<sup>4</sup> The focus of this dissertation is on global evaluations of overall SWB in large-scale surveys. Therefore, it does not cover the Experience Sampling Method (ESM), or the Day Reconstruction Method (DRM), see e.g. Kahneman et al. (1999), Kahneman et al. (2004), or (White & Dolan, 2009). For the same reason, Aristotle's notion of eudaimonia, which assumes human beings to have underlying psychological needs, such as meaning, autonomy, control and connectedness, is also not covered. The interested reader may consult (Hurka, 1993; Ryff, 1989; Ryff & Keyes, 1995).

(Goldberg & Williams, 1988). A more recent development is the “Well-Being Module” of the ESS (Huppert et al., 2009). An analysis of 32 studies counted 173 different SWB questions (Cummins, 1996). In sum, which exact measurement instrument is finally chosen for a study surely depends on the nature and purpose of the research project.

Broadly speaking, single-item questions capture a general happiness trend, while multiple-item questions can investigate different aspects of well-being (Diener et al., 1999; Frey & Stutzer, 2002). Some have argued that an assessment of life satisfaction must consist of at least 3-5 items for emotional states to be captured adequately (Diener et al., 1985; Pavot & Diener, 1993). Moreover, single-item questions can be at risk of ‘over-simplifying’ the emotional state of the respondent (Diener & Suh, 1997). However, comparative meta-analysis of eleven large-scale studies resulted in “sufficiently close relationships” (Rapley, 2003: 15) between scores on single-item measures and the aggregate scores of multiple-domain measures. That is to say, the aforementioned generalised life satisfaction question correlates highly with more elaborate scales (convergent validity). As a result, multiple-item SWB measures have even been termed “essentially redundant” (ibid.: 15). Moreover, psychological research has shown that such a single summary measure is capable of adequately capturing a person’s state of happiness (Kahneman et al., 1999; Kahneman & Krueger, 2006). The use of a single-item SWB measure is especially widespread in large surveys, such as the Eurobarometer, British Household Panel Survey, German Socio-Economic Panel, or the World Values Survey, whereby the answer scale varies from 4 to 11 points depending on the survey.

In conclusion, general questions continue to be used by many survey designers and researchers, and the generalised life satisfaction question is one of the few “empirical benchmarks” of QOL research (Cummins, 1996; Rapley, 2003: 15). In fact, the most commonly used SWB items in survey research are generalised happiness and life satisfaction questions, such as the ones mentioned in the beginning of this section. The reason for this lies in the high correlations with more complex indexes of SWB, but is also due to the good performance of global SWB self-assessments relative to their costs and wide-ranging availability (Frey, 2008; Kahneman & Krueger, 2006).

## **Happiness vs. life satisfaction**

Although the terms life satisfaction, happiness, and SWB are often used synonymously in the literature (Frey, 2008), as well as in this thesis with the exception of the empirical part, a fine distinction actually exists between them. It will be introduced here for clarification purposes and to justify the choice of the particular response variable.

SWB is the overarching concept of people's evaluation of their lives. It can be split up into the various indicators used to measure someone's perceived well-being. Questions about a respondent's life satisfaction are assumed to provoke a more *cognitive* judgement, while happiness refers to a more *affective* component of SWB (Campbell et al., 1976). In other words, the correlates of happiness are more likely to be of emotional relevance, such as recent experiences of fun and a good family life (Andrews & Withey, 1976; Sirgy, 2001). Thus, the measure captures "gut reactions" (Sirgy, 2001: 31). On the other hand, indicators of life satisfaction are more likely to reflect a more cognitive evaluation, taking into account respondents' overall situation (Campbell et al., 1976; Kahneman & Krueger, 2006; Sirgy, 2001). As this thesis is also interested rather in evaluative assessments of respondents' life situations, it will use generalised life satisfaction as response variable, and conclude with the words from a similar analysis by Helliwell & Putnam (2004: 1438):

"in short, the 'life satisfaction' measure seems marginally better than the 'happiness' measure for our purposes of estimating the effects of relatively stable features of social context (and especially social capital)".

## **Problems with SWB indicators**

As with any subjective survey data, there are measurement issues with SWB. These factors, which possibly lead to a discrepancy between the 'true' SWB score of a respondent and the reported value, are summarised in the error term in figure 2. For example, there could be ordering effects (relating to what item precedes the life satisfaction question), wording effects (how the question is phrased), scale effects (the kind and range of the answer scale), social desirability (answering in a manner that obliges with the social norm) and cognitive dissonance (inconsistency between the answer given and the respondent's actual behaviour or feelings) (Bertand & Mullainathan, 2001; Hudler & Richter, 2002; Sudman et al., 1996).



Moreover, critics have questioned whether respondents would be able to quantify emotional states into the surveys' metric scales (Cobb, 2000). Furthermore, it has been argued by sceptics that memory biases and situational influences (e.g. current mood, the weather) can impact a respondent's survey answer. For instance, the life domain that the respondent has most recently been thinking about before evaluating his overall life satisfaction may influence the result (Diener & Fujita, 1995; Schwarz & Strack, 1999).

Other psychologists conclude from their studies that life satisfaction statements are not strongly influenced by situational factors, neither were people hesitant to use the extremes of the numeric answer scales (Diener & Suh, 1999; Pavot & Diener, 1993). In usual testing situations, life satisfaction statements are not overshadowed by current mood (Diener et al., 1999). Also, while early experiments found people to report higher scores in face-to-face interviews compared to paper questionnaires (Sudman et al., 1996), replications of such studies could not detect an influence of measurement setting on the answers given (Diener & Suh, 1999). Furthermore, possible biases, e.g. social desirability or memory biases, were not found to exert a significant impact on SWB scores in several studies (Frey & Stutzer, 2002; Habich & Zapf, 1994; Noll, 2004).

Another debate revolves around the question whether an emotional state can be captured by a cardinal measure, and whether it is valid to treat the ordinal SWB variables as numerical. Although many argue that one can treat the answers to the generalised life satisfaction question simply as numerical (Ferrer-i-Carbonell & Frijters, 2004; Frey & Stutzer, 2002; Layard, 2005: 655), this thesis takes the critiques into account by including analyses that treat the response variable both as ordinal and numerical (see chapter 3 on Methods for more details).

## **Conclusion**

As a reaction towards criticism, a large amount of research by psychologists is devoted to testing and assuring the validity, reliability, and consistency of SWB indicators (see e.g. Diener et al., 1999; Kahneman et al., 1999; Kahneman & Krueger, 2006; Pavot & Diener, 1993). The support for the SWB measurements is in part based on the fact that they correlate highly with other measures of well-being, such as neurological functioning; the rating of one's happiness by friends, colleagues, and family; health; frequency of smiling during an interview; frequent verbal expression of positive

emotions during experiments; a lower risk of committing suicide,<sup>5</sup> etc. In sum, global life satisfaction questions were found to correlate highly with a range of relevant indicators (see figure 3). Hence, Donovan et al. conclude that “it is this body of consistent findings that is ultimately the strongest source of validity for life satisfaction as a measure, and that drives growing academic and policy interest in the concept” (Donovan et al., 2002: 8).

### Correlates of High Life Satisfaction and Happiness

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Smiling frequency  
Smiling with the eyes (“unfakeable smile”)  
Ratings of one’s happiness made by friends  
Frequent verbal expressions of positive emotions  
Sociability and extraversion  
Sleep quality  
Happiness of close relatives  
Self-reported health  
High income, and high income rank in a reference group  
Active involvement in religion  
*Recent* positive changes of circumstances (increased income, marriage)

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*Sources:* Diener and Suh (1999), Layard (2005) and Frey and Stutzer (2002).

**Figure 3: Correlates of high life satisfaction and happiness. (Source: Kahneman & Krueger, 2006: 9).**

Another argument in favour of the validity of SWB indicators comes from recent neuroscientific research, suggesting that SWB measures from surveys are a good representation of the respondents’ emotional states. Findings indicate that activity in the right prefrontal cortex of the brain is associated with negative emotions, while the corresponding left prefrontal cortex is more active when the respondent experiences positive emotions (Kahneman & Krueger, 2006; Layard, 2005). Using several measures of psychological well-being, Urry et al. (2004) found a statistically significant, positive correlation between survey reports of life satisfaction and the left-right difference in brain activation.<sup>6</sup> In sum, psychologists evaluate SWB measures to “possess adequate psychometric properties, exhibiting good internal consistency [...], moderate stability, and appropriate sensitivity to changing life circumstances” (Diener et al., 1999: 277).

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<sup>5</sup> Exceptions of this particular factor at the national level are Scandinavian countries, as they feature high national average scores on both SWB and suicide rates (Helliwell, 2008).

<sup>6</sup> For a critique of measuring emotions through brain activation as part of a neuroscientific debate see (Dumit, 2004; Vul et al., 2009).

All of this evidence has led Kahneman & Krueger to formulate the professional consensus in the SWB literature, according to which:

“The fact that responses to subjective well-being questions are related to individuals’ health outcomes, neurological functioning and characteristics—and predict some future behavior—suggests that the data are a valid subject for study in the sense that they capture at least some features of individuals’ emotional states.” (Kahneman & Krueger, 2006: 22).

In a similar way, other researchers support the notion that SWB is a valid and reliable indicator, as “subjective indicators measure what they ought to measure and they react sensitive to societal development” (Habich & Zapf, 1994: 30). The overall evaluation of life satisfaction demonstrates significant intrapersonal stability and interpersonal comparability (Frey & Stutzer, 2002). Hence, “it is empirically possible for most individuals to evaluate their life as a whole” (van Praag & Frijters, 1999: 427). It has been acknowledged that the responses to the SWB questions, “though not without their problems, are meaningful and reasonably comparable among groups of individuals” (Easterlin, 2004: 347). In addition, further improvements of the currently used SWB indicators are desired and in progress (Frey, 2008).

At the end of the day, the particular strength of subjective indicators of well-being is that, unlike objective QOL assessments, they do not contain a normative judgment about what statistics reflect the ‘good life’. Instead, respondents are allowed to evaluate the quality of their lives themselves. It is then by way of correlation that the researcher tries to identify which factors are associated with avowed reported life satisfaction. Subjective indicators of well-being therefore allow each respondent to weight for themselves what is important to them and their well-being. By contrast, a purely objective index, such as the Human Development Index, would try to weight in the name of respondents how much e.g. good health matters compared to an income of x dollars. So while indexes composed of objective measurements not only suffer from a missing variable problem, they also contain strong assumptions about the relative weights that certain factors have for human well-being. On top of this, they do not allow for different weights for different individuals (Diener et al., 2009). Last but not least, the method of identifying the correlates of happiness powerfully prevents a repeated error that respondents make when asked directly about what they *think* would make them happy. People usually mispredict utility by overestimating the effect of monetary

factors (e.g. a higher income, winning the lottery) and underestimate other important aspects such as human relationships (Frey, 2008).

### **2.1.3 Correlates**

The following sub-section will present the existing state of the knowledge on the correlates of happiness in order to justify the choice of control variables in the empirical chapters, as the factors mentioned here can be assumed to exert an effect on the response variable (SWB). The relationship between social capital and SWB will be omitted from this section, as it will be discussed in detail in the following chapter.

The effects of a number of socio-economic variables such as income and unemployment on well-being are well-documented, as the following paragraphs will demonstrate. Each factor will be presented along with a number of empirical studies, leading to the formulation of a hypothesis for the corresponding control variable for the empirical analyses. As the latter will be at the micro-level, this entire section will focus on correlates of SWB at the individual level. Contextual determinants of SWB at the macro-level (e.g. in order to compare the happiness levels of countries) from GDP to political freedom are thoroughly discussed in Kroll (2008, chapter 2.2).

In an initial study, based on the correlates of avowed happiness Wilson (1967: 294) described the ideal type of a happy person as a

“young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self-esteem, job morale, modest aspirations, of either sex and of a wide range of intelligence”.

More recently, Blanchflower (2008: 7) summed up the state of the current knowledge in a similar way:

“the main ceteris paribus findings from happiness and life satisfaction equations across countries and time [are that] well-being is higher among those who are women, married, highly educated, actively involved in religion, healthy, with a high income, young or old, self-employed, with low blood pressure, sexually active, without children.”

Even though Blanchflower's conclusions are not identical to those drawn by Wilson 40 years earlier, the quotations nonetheless highlight that the key patterns carry some robust validity. More specifically, figure 4 illustrates the SWB loss on a 10-point scale associated with various socio-economic factors, such as becoming unemployed (on average 3 points lower SWB than people in the reference category, the employed) or being divorced (on average 2.5 points lower SWB than people in the reference category, the married), based on what many studies have found (Layard, 2003).

	Fall in happiness (index)
<b>Income</b>	
Family income down 33% relative to average	1
<b>Work</b>	
Unemployed (rather than employed)	3
Job insecure (rather than secure)	1.5
Unemployment rate up 10 percentage points	1.5
Inflation rate up 10 percentage points	0.5
<b>Family</b>	
Divorced (rather than married)	2.5
Separated (rather than married)	4.5
Widowed (rather than married)	2
<b>Health</b>	
Subjective health down 1 point (on a 5-point scale)	3

**Figure 4: Correlates of happiness.** (Source: Layard, 2003: 3).

It has to be said that the question of causality is still not clearly answered in many cases. In other words, it is very likely for socio-economic conditions to influence happiness, but it is equally possible for happier people to be more successful in finding a well-paid job, a partner, etc. Moreover, it is not unthinkable for some unobserved personality or genetic third variable (e.g. neuroticism, extraversion) to influence both socio-economic conditions of people, as well as their happiness level. Nonetheless, social science was able to identify a range of systematic associations between SWB and a range of variables – as well as some causal influences based on panel studies and (field) experiments. Moreover, the factors that influence SWB seem to be strikingly similar across cultures and countries, as shown by an analysis of Gallup World Poll data covering 105 nations by (Helliwell et al., 2009).

While patterns of correlation could be established over the past decades, this review reveals that firm theory-building has often been neglected by researchers. Despite some attempts to boost theory, e.g. in chapter 1 of Headey & Wearing (1992), the overall picture that emerges is of a science that is predominantly concerned with producing empirical findings while the development of theoretical narratives played a only subordinate role. This is a deficiency that certainly needs to be corrected to some extent over the coming years. Hence, this thesis will aim to contribute to such an endeavor by systematically developing a theoretical framework at the outset of every empirical chapter.

In sum, a vast amount of empirical research has emerged that examines the factors which are correlated with avowed levels of happiness. Many studies have investigated the determinants of SWB by conducting multivariate regression analyses of socio-economic characteristics (as explanatory variable) and SWB (as response variable) (extensive literature reviews on the correlates of happiness have been written by e.g. Diener & Seligman, 2004; Dolan et al., 2006, 2008; Donovan et al., 2002; Frey, 2008; Frey & Stutzer, 2002; Layard, 2005). A prominent collection of studies is the World Database of Happiness (Veenhoven, 1995). A full list of all possible correlates would exceed the purpose and appropriate length of this thesis. Nonetheless, the following main, robustly tested factors that influence SWB based on findings from large-scale surveys will be presented: age, income, gender, health, marital status, employment status, religiosity, children, and education.<sup>7</sup>

### **Age**

The relationship between age and SWB is usually reported to be u-shaped. That is to say that life satisfaction is higher among younger people, as well as among older people. The middle age group tends to report lower levels of SWB (see e.g. Argyle, 1999; Diener et al., 1999; Helliwell, 2003; Myers, 2000). For instance, Blanchflower & Oswald (2008) show that the lowest life satisfaction is usually reported by respondents within a few years around age fifty. The curvilinear relationship can either be observed by including an age squared term into the model, or by investigating age groups separately using dummy variables. However, it has to be said that the u-shaped curve signifying the relationship between age and SWB would actually become shallower if

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<sup>7</sup> See also e.g. Layard (2005: 63) for what he calls the “Big Seven factors affecting happiness”: family relationships, financial situation, work, community and friends, health, personal freedom and personal values.

marital status and health were not controlled for. Both these factors are likely to have a rather detrimental effect on older people's well-being due to declining physical health and a growing likelihood of losing one's spouse as one gets older.

The reasons for this curvilinear association are assumed to be manifold. One assumption is that adolescence is associated with hopes, opportunities, freedom of choice and new challenges, while during middle age obligations and strains play a larger role in people's lives. Then, as they retire and their children have grown up, older people have lowered their aspirations and have fewer obligations to fulfil (Haller & Hadler, 2006: 185). Another explanation for the rising happiness in old age could be that people have adapted (i.e. lowered) their expectations about life and thus narrowed their goal-achievement gap (Campbell et al., 1976). Finally, the amount of discretionary time available is a factor that correlates with SWB (Goodin et al., 2008), and it can generally be assumed to be higher among younger and older people. On the other hand, critics have pointed out that the pattern could be due to sample-selection bias (Frijters & Beatton, 2008). Nonetheless, it remains a robust finding that (especially among respondents of equal health and marital status) the very young and the very old have a higher chance of reporting elevated SWB scores.

H<sub>1</sub>: SWB is higher in young and old age, while it is lower in the middle age groups.

## **Income**

In line with standard economic theory and perhaps common intuition, there is general consensus in the literature that the association between income and SWB is positive (see e.g. Blanchflower & Oswald, 2004a; Clark et al., 2007). Higher income allows fulfilling material wishes, it increases one's freedom of choice and may shield a person from unpleasant events (Biswas-Diener, 2005; Cummins, 2002). However, a few qualifications need to be mentioned to complete the picture. First, unobserved third variables (such as personality characteristics) may influence both income and SWB (Ferrer-i-Carbonell & Frijters, 2004). Second, causation is likely to run both ways, as higher SWB has been reported to be associated with higher future incomes (Diener et al., 2002; Graham et al., 2004). Third, the marginal utility of income is likely to decrease for richer people (Layard et al., 2008). Fourth, it has been argued that next to

absolute income, relative income is an important factor (Clark et al., 2008; Layard, 2005, 2008; Layard et al., 2008), although other scholars play down the impact of relative income and instead emphasise the benefits of absolute income (Deaton, 2008; Stevenson & Wolfers, 2008).

In a similar fashion, it was observed earlier that while a higher income within a society matters to well-being, increases of GDP over time in Western democracies did not generate increased SWB levels. This phenomenon is known as the “Easterlin Paradox” (Easterlin, 1974). Hence, adaptation and social comparison are important factors that influence well-being, especially with regard to the happiness that is derived from income. These processes have also gained prominence under the terms ‘hedonic treadmill’ and ‘positional treadmill’, respectively (see e.g. Layard, 2005). Also, the within-country correlation between income and SWB is higher in low income countries than in rich nations (Biswas-Diener & Diener, 2001).

H<sub>2</sub>: The higher someone’s income the more satisfied with life he / she will be.

### **Gender**

The evidence on the impact of gender on SWB is ambivalent. Some studies report no gender difference for many EU countries (see e.g. Christoph & Noll, 2003; Hayo & Seifert, 2003). Other studies, however, report women to have higher life satisfaction levels than men (see e.g. Alesina et al., 2004; Di Tella et al., 2001; Haller & Hadler, 2006). A repeated finding of studies that measure both positive and negative mental states with a multiple-item scale is also that women tend to have higher scores on both dimensions (Dolan et al., 2008).

H<sub>3</sub>: The SWB scores of women will be higher than those of men.

### **Health**

Good health has a strong positive relationship with SWB. This link seems intuitively plausible as good health means the absence of pain and freedom to do activities as one pleases, and it has been confirmed by many studies (see e.g. Dolan et al., 2008; Helliwell, 2003; Layard, 2005; Michalos et al., 2001). As can be seen in figure 4, decreases in health status result in greatly reduced SWB scores. Marmot (2003), for



instance, reported a positive association of about .60 between low life satisfaction and subjective poor health.

H<sub>4</sub>: The healthier someone is the higher his / her SWB will be.

### **Marital status**

A repeated finding in the happiness literature is that people living in marriage and in committed relationships report the highest SWB scores, followed by singles, the divorced and widowed, while separated respondents appear to have the lowest scores (Haller & Hadler, 2006; Hayo & Seifert, 2003; Helliwell, 2003; Myers, 2000; Stutzer & Frey, 2006). These findings support the notion that a life partner provides vital emotional support, and marriage can bring material and non-material gains through each spouse's contribution to a common benefit (Becker, 1981). For the separated, however, the stress of the break-up may still be present, while single, divorced and widowed people were possibly given some time to come to terms with their life situation (Argyle, 1999).

Based on correlational studies it has been argued, for example, that a lasting marriage is worth US\$ 100,000 per year, compared to widowhood in terms of SWB (Blanchflower & Oswald, 2004a). Similarly, Clark & Oswald (2002) report that marriage generates the same happiness as having an extra income of US\$ 70,000 per annum. The negative effect of widowhood on SWB, on the other hand, could only be compensated for by an extra income of US\$ 170,000 per annum (ibid.). The finding of increased SWB among the married contradicts the widespread idealisation of the modern single lifestyle in contemporary Western society (see e.g. Beck & Beck-Gernsheim, 1994, as noted by Haller & Hadler, 2006).

In a similar fashion, the health literature reported that mental hospital admissions are highest for separated and divorced individuals and lowest for the married (Bloom et al., 1979). Likewise, unmarried people, single parents, and people living alone were at the greatest risk of suffering from mental health problems in a UK study (Jenkins et al., 1997).

As with other variables, reverse causation may also affect the relationship between marriage and SWB. Changes in marital status over time, however, did affect happiness levels significantly, hinting towards a causal influence. For example, a spouse's death leads to a significant drop in life satisfaction, and the SWB never quite returned to its initial level in a study by Lukas et al. (2003). At the same time, though, happier individuals also have a higher change of getting married (Stutzer & Frey, 2006).

H<sub>5</sub>: SWB levels are higher for those who are married compared to those who are single, divorced, widowed or separated.

### **Employment status**

The overwhelming majority of research concerning the impact of employment status on SWB has focused on the detrimental effects of unemployment. Being without a job is not only associated with financial difficulties, but also a range of non-pecuniary costs, such as the loss of a social network, not being able to develop and apply one's skills, lacking a source of self-esteem, and having feelings of 'uselessness' (Clark & Oswald, 1994; Clark et al., 2001; Haller & Hadler, 2006). This can lead to self-doubts, depression, isolation: in sum, unhappiness. Many empirical studies indeed report that unemployment significantly lowers life satisfaction even when controlling for income (see e.g. Clark, 2003; Clark & Oswald, 1994; Di Tella et al., 2001; Frey & Stutzer, 2002; Winkelmann & Winkelmann, 1998; Winkelmann, 2009). More precisely, being unemployed reduces a respondent's chance of reporting high life satisfaction by 19% (Lelkes, 2006).

Some interesting interaction effects were noted, e.g. that men suffer more from unemployment than women (Clark, 2003; Lucas et al., 2004), and that people in the middle age group suffer more than the young or old (Clark & Oswald, 1994; Winkelmann & Winkelmann, 1998). Moreover, a study on SC and unemployment did not confirm the hypothesis that having a lot of SC protects against the loss of happiness through unemployment. Those with and those without much SC were equally affected by the unhappiness effect of unemployment (Winkelmann, 2009). Strong religious beliefs, on the other hand, do seem to 'insure' people against that negative effect of losing a job, widowhood and low income (Clark & Lelkes, 2005). Last but not least,

being jobless seems to be associated with more negative effects in areas with low overall unemployment rates (Clark, 2003).

The negative effect of unemployment on life satisfaction furthermore seems to be causal, and the risk of reverse causation (i.e. that those who are unhappy in the first place do not get a job or are more likely to lose it) appears minimal, as indicated by longitudinal studies (Clark et al., 2001; Lucas et al., 2004; Winkelmann & Winkelmann, 1998).

H<sub>6</sub>: People who are unemployed will have a lower SWB.

### **Religiosity**

Religious people, on average, report themselves to be happier (e.g. Clark & Lelkes, 2005; Diener et al., 1999; Helliwell, 2003; Myers, 2000). Religion seems to provide people with guidance and it offers their life a deeper purpose. Moreover, worshipping during services and celebrations may give some structure to everyday life for many believers. Last but not least, religiosity often connects people and can embody the social glue between groups of people, finally leading to supportive social ties (Haller & Hadler, 2006). Lim & Putnam (2010) found the effect even to be causal, in a sense that religious attendance at time 1 (or time 2) predicted subjective well-being at time 2, controlling for levels of subjective well-being at time 1. Furthermore, the authors discovered that this mechanism was neither theological nor psychological, but rather the strong effect of friends at church on well-being.

H<sub>7</sub>: The more religious someone is the more satisfied with life he / she will be.

### **Having children**

The evidence on the effect of having children on SWB draws a very unclear picture. In a meta-analysis of several studies, Dolan et al. (2006) found that 13 studies report no effects of having children on SWB, 14 report negative effects, while three report positive effects. In a Day Reconstruction Method (DRM) study that draws a more nuanced picture of the benefits associated with a number of daily activities, White & Dolan (2009) reported that time spent with children was relatively more rewarding than pleasurable. Similarly, while parenthood seems to be associated with (more long-term)

overall life satisfaction, it exerts a negative effect on the parent's (rather short-term) happiness, according to Haller & Hadler (2006). In conclusion, however, given the many ambivalent findings mentioned above, no clear hypothesis will be formulated with regard to the effect of children on SWB.

### **Education**

Education is often found to be positively associated with SWB (e.g. Blanchflower & Oswald, 2004b; Helliwell, 2003). However, education may be solely instrumental in that it serves to increase income. Hence, the effect of education is much smaller once income and socio-economic status (SES) are controlled for, up to the point where actually those in the middle category in terms of education have the highest SWB levels, as some studies argued (e.g. Stutzer, 2004). Consequently, formulating a hypothesis about education with a definite direction does not seem feasible.

### **Migration**

An emerging field of study is concerned with the relationship between migration and SWB. There are two opposing views in this area (Bartram, 2010, 2011a, 2011c). Under the 'revealed preferences' paradigm, people choose to do things which maximise their well-being. Hence, those who migrate to a (usually wealthier) country would be better off having done so. In absolute terms they would be richer after migration and, after all, it was their own decision to migrate. By contrast, it could be argued that migrants will be worse off in terms of SWB in their new environment because of adaptation and social comparison. They often find themselves at the bottom of the societal hierarchy in the countries they have moved to, and after a while they will have adapted their reference frame for what a good life constitutes of to that of their new fellow citizens. Also, going abroad usually means leaving behind one's established social network. An SWB approach would treat the question of the effect of migration as an empirical one. Being an immigrant does appear to be associated with lower SWB levels in cross-sectional studies of both the US and Europe (Baltatescu, 2007; Bartram, 2011a; Safi, 2009), and even returned migrants reported lower life satisfaction compared to non-migrants in an analysis of Romania (Bartram, 2011c). Moreover, studies on internal migrants within Thailand found that they were less satisfied with their lives after migration (De Jong et al., 2002; Michalos, 1996 for internal migration in general; as quoted in Bartram 2011a). The intriguing question on whether international migration

actually makes people happier cannot be answered with the existing data, though, as it would require a large enough panel data set that follows migrants across borders over time (Bartram, 2011a: 58). Due to the problems related to data availability, as well as given the opposing views prevalent regarding the relationship between migration and SWB, but also as such questions go beyond the central scope of this thesis on SC and SWB, the issue of migration will be spared from the regression analysis. It should be emphasised, however, that this is an important avenue for future research given the increasing numbers of international migrants, for example in the context of Europe and North Africa.

### **Excursus: Genes and personality**

As biological and psychological discussions would exceed the scope of this thesis, the two aspects of genes and personality will only be mentioned in passing for the sake of comprehensiveness. Some biologists and some psychologists regard happiness as partly or mainly determined by our genes, while socio-economic conditions are taken to play a subordinate role. According to this view, happiness is more of a *trait*, whereas each individual has a certain *set point* level of happiness. One's life satisfaction level always returns to this point, even after decisive life events such as marriage, divorce or job loss (Brickman et al., 1978; Headey, 2008; Tellegen et al., 1988). For instance, some scholars of this tradition claim “that 44% to 52% of the variance in [SWB] [...] is associated with genetic variation” (Lykken & Tellegen, 1996: 186).

In a similar fashion, it has been argued that personality characteristics influence SWB levels (Argyle, 1999, 2001; Diener et al., 1999; Kahneman et al., 1999; Lyubomirsky, 2001; Seligmann, 2002; Weiss et al., 2008). More precisely, cognitive strategies and motivational processes determine whether one has a more or less happy personality. Examples of successful cognitive strategies would be a small goal-achievement gap, or attributing good events to the self and bad events to others<sup>8</sup> (see for example Gilbert, 2007 for research findings on motivational processes and happiness). Academic papers further noted a correlation between avowed happiness levels with extraversion and low neuroticism (DeNeve & Cooper, 1998; Headey et al., 1984; Vittersø & Nielsen, 2002). The frequent experience of “flow”, i.e. satisfaction arising from being absorbed into a

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<sup>8</sup> Cognitive strategies are a major tool in the so-called self-help literature on happiness.

certain task, was also reported to be a major source of life satisfaction (Csikszentmihalyi, 1997).

At the end of the day, while personality and genes certainly influence happiness, they remain only part of the picture. The generalisability of personality factors is questionable, as psychological studies on them are small in scale and therefore do not control for a range of missing variables (Dolan et al., 2008). An interesting research avenue that should be explored further in this regard to overcome such criticism could be to examine personality and SWB on the basis of large-scale surveys, such as the BHPS which covers the 'Big Five' personality traits.

Finally, studies have shown that SWB varies considerably over time, especially depending on life circumstances and following life events (e.g. marriage, job loss, death of a close relative, etc.) (Veenhoven, 1994). Lucas et al. (2003, 2004) even show how the set-point for SWB may be altered following life events such as unemployment. Also, genes and cognitive strategies fail to convincingly explain the systematic international differences in SWB levels, which are more likely to be the result of varying socio-economic conditions (Inglehart & Klingemann, 2000; Veenhoven, 1994).

## **Conclusion**

The aforementioned list of the major correlates of SWB is far from complete with regard to a definite 'happiness formula' or 'utility function'. Many other influences for well-being are imaginable, and future research will surely investigate a broader range of determinants of SWB besides those socio-demographics. However, the list embodies the state of the knowledge of the most robust and prominent socio-economic factors. They provide important hints as to which control variables should be included in the regression analyses in chapters 4 to 8, and as to which outcomes we can expect. Hence, this chapter produced a significant range of testable hypotheses as a starting point for the empirical study (hypotheses 1 - 7).

Further potential determinants of well-being that are not reviewed here either for the sake of presenting only the major debates in the literature, or since they are not relevant for the empirical study, include physical exercise, commuting time, political persuasion,

contextual factors such as working conditions, or institutional factors like direct political participation rights (see e.g. Dolan et al., 2008; Frey & Stutzer, 2002).

## **2.2 Social capital**

Although a range of correlates of SWB were presented in the preceding chapter, one vital factor is still missing. Indeed, “one of the most important findings” in the happiness literature so far has been that non-material aspects, and in particular social relations, play an imminent role for well-being (Frey, 2008: 4). Therefore, the following two sections will first introduce the notion of social capital (SC) (section 2.2), and then show its links to SWB (section 2.3).

Studies which highlight the social context of well-being confirm that life is “more than a set of commercial relations” (Nussbaum & Sen, 1993: 1). In fact, the empirical evidence on the relationship between SC and SWB is vast, which has led scholars to argue that “the social nature of human beings is never more evident than when one reviews studies of subjective well-being” (Helliwell, 2001: 55). Likewise, the Stiglitz Commission concluded in their final report that “much evidence at both the aggregate and individual level suggests that social connections are among the most robust predictors of subjective measures of life satisfaction” (Stiglitz et al., 2009: 183).

### ***2.2.1 History and relevance***

Notions that are very similar to SC, such as the importance of community, can be traced back to the works of Weber, Durkheim and de Tocqueville (OECD, 2001), as well as Aristotle, Adam Smith, and Simmel (Halpern, 2005). One theoretical precursor of SC, de Tocqueville, for instance, considered the intellectual and moral associations in the USA to form the foundation of the country’s democracy (Tocqueville, 1969 [1835]). Durkheim, in a similar fashion, observed a link between social cohesion and suicide, concluding that “mutual moral support” would be an efficient factor that keeps individuals from committing suicide (Durkheim, 1997 [1897]: 210, see section 2.3 in this thesis for more details on the theoretical links from SC to SWB).

The term SC was first used by Hanifan (1916; 1920, according to Woolcock 1998) who defined it as “good will, fellowship, sympathy, and social intercourse among the

individuals and families who make up a social unit” (1920: 78). However, it was not until the 1980s that it entered mainstream sociology. During the six decades in between, the concept and very similar notions have only been applied in a few works such as Jacobs (1961), Loury (1977), and Granovetter (1982) (for extensive accounts of the historical roots of SC see e.g. Adam & Rončević, 2004; Fukuyama, 2000; Fulkerson & Thompson, 2008; Woolcock, 1998). The seminal articles on SC by Coleman (1987, 1988), Bourdieu (1986), as well as Putnam et al. (1993) mark the “birth of mainstream academic interest in the concept” (Halpern 2005: 6). In other words, they were the first systematic accounts of the concept, with SC as “a way of systematizing the effects of social relations” (Castiglione et al., 2008: 2). Figures 5 and 6 document the exponentially rising number of articles on SC during the 1990s. It can be seen in figure 5 that from 1995 onwards, i.e. two years after the publication of Putnam et al.’s study “Making Democracy Work”, the number of articles has been rising enormously. Figure 6 in fact illustrates that the concept of SC is now as widespread as the study of political parties.

This development has led scholars to comment that first, “social capital is the most important and exciting concept to emerge out of the social sciences in fifty years” (Halpern, 2005: 1); second, “in the past two decades, social capital in its various forms and contexts has emerged as one of the most salient concepts in social sciences” (Lin, 2001a: 3); and third, “we are witnessing its unprecedented acceptance and application” (Adam & Rončević 2004: 184). Whether one is to judge the quality of SC as a concept with such enthusiasm or more sceptically, even critics acknowledge that SC has factually become “one of the most popular exports from sociological theory into everyday language” (Portes, 1998: 2). *Sozialkapital* is now an established area of research in many languages, as further exemplified by a special issue of the German “Kölner Zeitschrift für Soziologie und Sozialpsychologie” in 2007 (Franzen & Freitag, 2007).



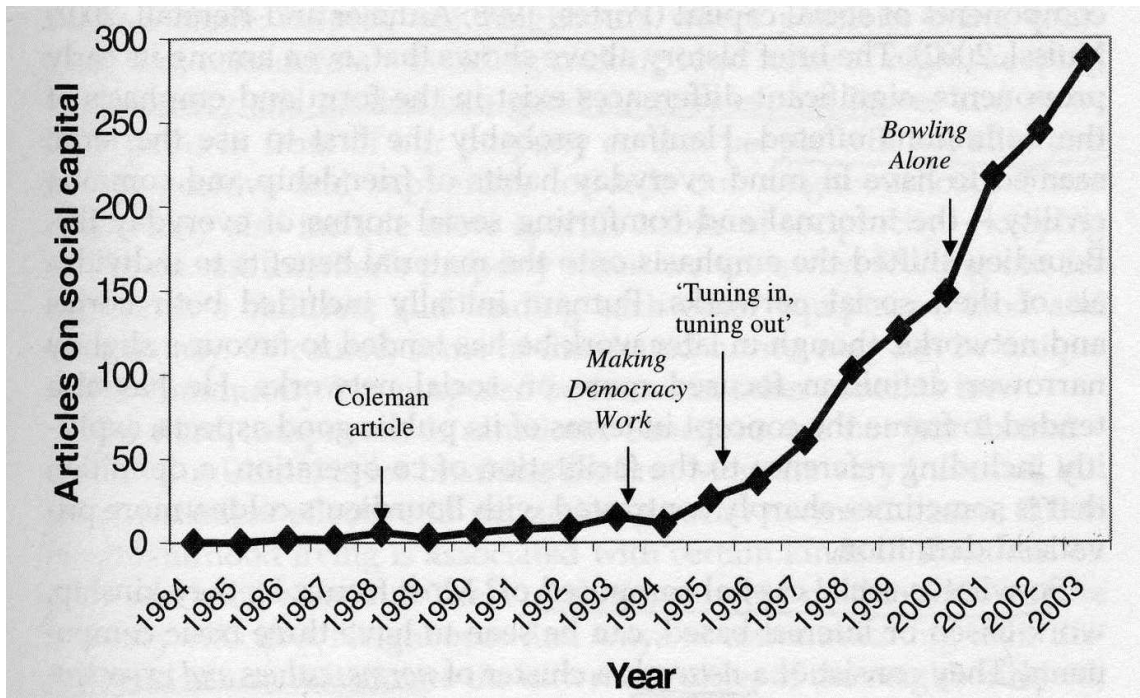


Figure 5: Academic articles on social capital, 1984 – 2003. (Source: Halpern 2005: 9).

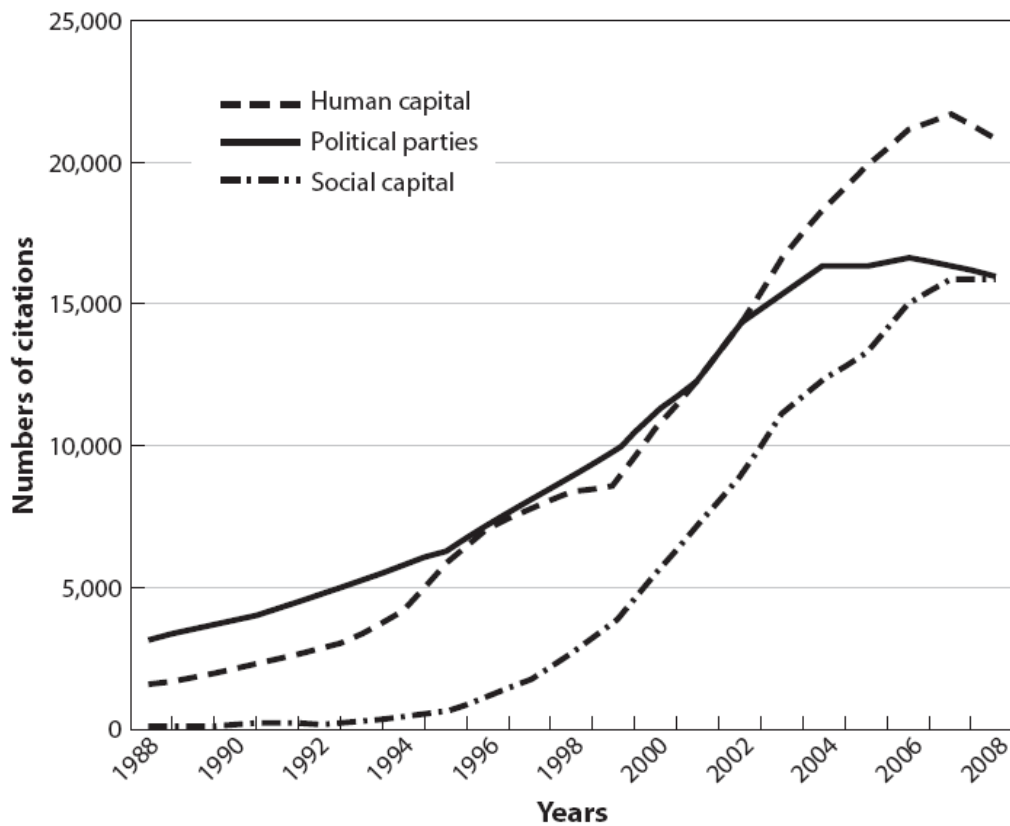


Figure 6: Rise of social capital as a concept 1988 - 2008 compared to “human capital” and “political parties”. (Source: Woolcock, 2010).

The reasons for success of SC as an object of social research, according to Castiglione et al. (2008: 4-5), lie in the fact that SC “offered a ‘grand theory’ through which to interpret the causal relationship between different macro aspects of society”. Moreover, the concept of SC is applicable to a variety of research fields and disciplines, such as education, social welfare, politics, and economic activity. Also, it relates to similar well-known sociological ideas such as community, civil society, networks, social ties, groups, institutions, trust, and social inclusion (ibid.); some of these will be distinguished later in this section.

Halpern (2005: 1-2) attributes the rising popularity of the term SC to the concept’s capacity of uniting a “hard-nosed economic feel while restating the importance of the social”. He links the rise of the concept to the comeback of centre-left parties in the mid-1990s and the *Zeitgeist* of the era that turned away from the economic political fashion of the 1980s.<sup>9</sup> The notion was accompanied by the insight that a one-sided focus on economic questions would be a one-way street, e.g. for the ex-communist nations in transition during that decade. A second reason for SC’s present popularity is the fact that across many disciplines, and independently from each other, academics have discovered its importance for the respective outcome they investigated, such as economic growth, health, crime, educational performance, or the efficacy of governments. Hence, “social capital was the missing variable that economists had overlooked” (ibid.: 2).

### ***2.2.2 Definitions***

The most influential definitions of SC have been formulated by Bourdieu, Coleman, and Putnam. While the two former scholars rather view it as a private resource, the latter considers it to be also a public good. The following paragraphs will present the current mainstream understanding of SC.

#### **Capital**

In general, capital can be described as an “investment of resources with expected returns in the marketplace” (Lin, 2001b: 3). All theories of capital, from Marx to more recent approaches featuring human and cultural capital, revolve around the “basic idea that capital is the investment of resources for the production of profit” (ibid.). Capital

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<sup>9</sup> Which climaxed in Margaret Thatcher’s pronouncement that “there is no such thing as society” (Halpern, 2005: 2)

theories imply resource investments that return goods to individuals in excess of their investments (Warren, 2008). Human capital theory, for example, is based on the idea that acquiring skills and investing in one's own knowledge brings economic returns on the labour market (Schultz, 1961, as quoted in Lin, 2001b: 8). Distinguishing SC from other forms of capital, Halpern (2005: 30) illustrates the nature of the concept with an example.

“Corporate managers may choose between buying new machines (physical capital), sending individuals on training courses (human capital), or sending a whole group of employees and associates on an adventure weekend that builds networks and trust between them (social capital)”.

### **Most influential definitions of social capital**

The individualistic view of SC as a private resource was developed by Pierre Bourdieu (1986) and James Coleman (1988, 1990). In general, they consider SC to be the resources which individuals accumulate as a result of their membership in social networks. Bourdieu defined SC as:

“the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition” (Bourdieu, 1986: 249).

For Bourdieu, SC forms the basis of social reproduction and power transference. He uses SC to explain how individuals with high social status use networks to ensure their elite standing in society by excluding outsiders. In this sense, the notion of SC has to be seen in conjunction with Bourdieu's work on cultural and economic capital and the idea of *habitus*, which serve the purpose of securing an elevated status in society (Bourdieu, 1986).<sup>10</sup> Coleman, who studied the role of SC for the educational attainment of young people, offers a similar, functional definition:

“Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of

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<sup>10</sup> For Bourdieu, SC would be completely unnecessary as a resource to defend the elite's superior status as long as cultural capital and economic capital function properly. Usually, cultural capital and a *habitus* are instilled in the children of the higher status parents automatically, and rich parents normally manage to buy their children a good education to ensure a successful career for them. Only when these mechanisms fail would parents need to resort to SC (Bourdieu, 1986).

some aspect of social structure, and they facilitate certain actions of individuals who are within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence” (Coleman, 1990: 332).

In a study on the New York wholesale diamond market, Coleman (1988) had observed how traders would pass on valuable bags of diamonds to their colleagues and competitors for them to examine the content. This was done in absence of a formal contract and with a high degree of trust, resulting in great efficiency. SC is generated through networks of relationships, reciprocity, trust and social norms here, so Coleman concluded that the traders had high amounts of SC.

Putnam refines such earlier definitions by stating that SC describes: “connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000: 19). However, he extends the understanding of SC to one of a public good that can be assigned not only to individuals, but also to collectivities such as regions or nations. Hence, SC “refers to the collective value of all ‘social networks’ and the inclinations that arise from these networks to do things for each other” (Putnam, 2000: 135). It “refers to features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions” (Putnam et al., 1993: 167).

In a similar to Bourdieu and Coleman, Lin states an individualistic definition of SC by describing it as “resources embedded in a social structure which are accessed and mobilized in purposive actions” (Lin, 2001a: 12; see also Lin, 2001b), or simply as “resources embedded in social networks” (Lin & Erickson, 2008: 4).

The OECD (2001: 41) has also taken up SC into its vocabulary, and understands the concept to be “networks together with shared norms, values and understandings that facilitate co-operation within or among groups”. This definition has, furthermore, been adopted by all UK government departments following a cross-governmental working group (Economic and Social Data Service, 2008: 2). Likewise, the World Bank uses a SC definition that “refers to the institutions, relationships, and norms that shape the quality and quantity of a society’s social interactions [...] Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together” (World Bank, 2009: 1).

## **Related concepts**

It may be helpful to distinguish SC from the term *civil society*, which is similar and yet denotes something else. The latter is defined as

“the arena of uncoerced collective action around shared interests, purposes and values. [...] Civil societies are often populated by organizations such as registered charities, development non-governmental organizations, community groups, [...] and advocacy groups” (LSE Centre for Civil Society, 2004: 1).

So while civil society refers to a certain group of organisations and their role in the relationship between state, market and the private sphere, SC is more broadly defined as a resource that is inherent in any social network or structure.

Likewise, the notion of *networks* has to be distinguished from SC. The latter captures the quantity and quality of resources for an individual which result from membership in networks. Thus, networks are necessary but not sufficient antecedents exogenous to SC (Lin, 2008: 58).

The terms *community* and SC are also said to be “conceptual cousins” (Putnam, 2000: 21). However, a community is more precisely defined as the realm in which an exchange of SC can take place. More recently, some economists have termed social factors that are beneficial to an individual “relational goods”. In this economic logic, socialising equals the “consumption of relational goods” (Bruni & Stanca, 2008: 1). Last but not least, another term for similar ideas is the “quality of relational life” (Stanca, 2008, see a more detailed explanation in section 2.3).

## **Sub-types of social capital**

### *Bonding, bridging and linking social capital*

The concept of SC has been distinguished into various sub-types in the theoretical literature. It has to be said though, that these distinctions hardly ever come into effect during actual empirical analyses because they are difficult to operationalise with the existing datasets. Nonetheless, they are briefly presented here to comprehensively outline the state of the research on SC.

A main distinction is between bonding and bridging SC. Bonding SC is understood to consist of networks, norms and understandings that facilitate cooperative activities within *homogenous groups*, i.e. individuals of the same ethnic background, class, SES, religion, etc., while bridging SC refers to ties across homogenous groups and between individuals of *differing socio-economic and cultural characteristics* (Helliwell, 2001). Putnam (2000), who credits this distinction to Gittel & Vidal (1998), describes it as follows:

“Of all dimensions along which forms of social capital vary, perhaps the most important is the distinction between bridging (or inclusive) and bonding (or exclusive). Some forms of social capital are, by choice or necessity, inward looking and tend to reinforce exclusive identities and homogeneous groups. Examples of bonding social capital include ethnic fraternal associations, church-based women’s reading groups, and fashionable country clubs. Examples of bridging social capital include the civil rights movement, many youth service groups, and ecumenical religious organisations. [...] Bonding social capital is good for undergirding specific reciprocity and mobilizing solidarity [...] Bridging networks, by contrast, are better for linkage to external assets and for information diffusion [...] Bonding social capital constitutes a kind of sociological superglue, whereas bridging social capital provides a sociological WD-40” (Putnam, 2000: 22-3).

The idea of bonding SC can be linked to the so-called ‘like-me hypothesis’, i.e. the principle of homophily, according to which social interactions tend to take place between people of similar socio-economic status and lifestyle (Lazarsfeld & Merton, 1954). According to the homophily principle, social ties are especially strong among people with similar values, attitudes, and beliefs (McPherson et al., 2001).

The distinction between bonding and bridging SC is furthermore similar to that of weak and strong ties (Granovetter, 1982), and sometimes these concepts are used synonymously (Halpern, 2005; Islam et al., 2006). However, the important difference is that while strong (weak) ties refers to how close (distant) two people are in terms of their position within a network, bonding (bridging) SC refers to the similarity (difference) in terms of socio-economic characteristics between two people. In other words, “a family, for instance, often constitutes a social network of *strong* ties, but tends to be *bridging* in terms of gender and age [while *bonding* in terms of SES]” (Ferlander, 2007: 119, my italics).

Theoretically, different types of social capital have different economic and social outcomes, “e.g. bonding social capital is most important to health in early childhood and frail old age whereas bridging social capital is most important in adult life when looking for employment” (Aldridge et al., 2002: 1). Woolcock (1998) tried to develop a framework to assess countries on the two dimensions low / high bonding and low / high bridging SC.

Moreover, some researchers have proposed a third conceptual type: *linking* SC (e.g. Woolcock & Narayan, 2000). This sub-type describes *vertical* SC, i.e. ties between individuals with unequal power and resources (Halpern, 2005). Often this means a person’s ties to authority, such as representatives of the public (police, political parties) and private institutions. Accordingly, the UK National Office of Statistics (2003: 1) sums up three sub-types of SC as follows:

“Bonding social capital – describes closer connections between people and is characterised by strong bonds e.g. among family members or among members of the same ethnic group; it is good for 'getting by' in life.

Bridging social capital – describes more distant connections between people and is characterised by weaker, but more cross-cutting ties e.g. with business associates, acquaintances, friends from different ethnic groups, friends of friends, etc.; it is good for 'getting ahead' in life.

Linking social capital – describes connections with people in positions of power and is characterised by relations between those within a hierarchy where there are differing levels of power; it is good for accessing support from formal institutions. It is different from bonding and bridging in that it is concerned with relations between people who are not on an equal footing. An example would be a social services agency dealing with an individual e.g. job searching at the Benefits Agency.”

In practice, however, surveys hardly contain any reliable information about whether a respondent’s social ties cut across ethnic or socio-economic frontiers.<sup>11</sup> Hence, incorporating the bonding / bridging distinction into large-scale analyses remains highly speculative and problematic with most existing datasets.

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<sup>11</sup> A rare example of a study that attempts to distinguish these kinds of SC found that the impact on health is stronger for community bonding social capital, compared to bridging (Kawachi et al., 2008).

### *Structural vs. cognitive, and formal vs. informal social capital*

A further distinction has been made between structural and cognitive SC. Structural SC describes membership and participation in networks, while cognitive SC is usually operationalised as interpersonal trust (Harpham et al., 2002; Yip et al., 2006). Last but not least, structural SC can be categorised into formal and informal SC. While the former refers to associational ties and civic engagement, the latter describes more relaxed friendship ties and other types of informal sociability. Making use of two Yiddish terms, Putnam distinguishes “machers”, i.e. people who generate SC through formal associations, from “schmoozers”, who focus on informal social connections as a source of SC instead (Putnam, 2000: 95).

### *Private resource or public good?*

All definitions of SC consider it to be a resource that resides in social networks. As mentioned earlier, however, a distinction can be made between the ‘network view’ of SC as a private, individual resource with instrumental value, vs. the ‘communitarian view’ of SC as an ecological attribute that is inherent in the structure of social relationships and constitutes a public good (Portes, 1998; Yip et al., 2006). Li (2007) described this distinction as Bourdieu and Coleman stressing the ‘capital’ side of the term SC, whilst Putnam stresses the ‘social’ side. Similarly, Esser (2008) coins micro-level SC as “relational social capital”, i.e. resources available to the individual, and macro-level SC as “system social capital”, i.e. properties of the social structure. Finally, Aldridge et al. (2002: 12) speak of this difference in terms of a club good vs. a public good.<sup>12</sup>

In the research process, this question manifests itself as to which level of analysis a study focuses on. Analyses that consider SC to be a public good compare the SC of entire regions, like Putnam et al. who declared in their study of Italy that “working together is easier in a community blessed with a substantial stock of social capital” (Putnam et al., 1993: 35-36). Most scholars indeed agree that SC is both a private and a collective good, i.e. that individuals as well as macro-units such as communities and countries benefit from it (Lin, 2001b). In fact, SC has been investigated at macro-levels

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<sup>12</sup> “Social capital is shared by a group, or by groups, of individuals. To the extent that all members of society or a community have access, it may constitute it a public good. But, to the extent that groups of individuals can control access by other individuals, it may correspond more to a club good” (Aldridge et al. 2002: 12).



(i.e. as an attribute of collectivities), at micro-levels (i.e. as an individual resource), as well as at multi-levels (i.e. both). Chapter 2.3 presents a range of studies of each category.

In conclusion, though, it has been argued that “the greatest theoretical promise of social capital lies at the individual level” (Portes, 1998: 21). Especially for studies of SWB, a general finding also in many multi-level studies is that compositional factors at the individual level matter more to happiness (Aslam & Corrado, 2007; Bjørnskov, 2008: 55).<sup>13</sup> As a consequence, the empirical analyses in this dissertation will focus on the individual level.

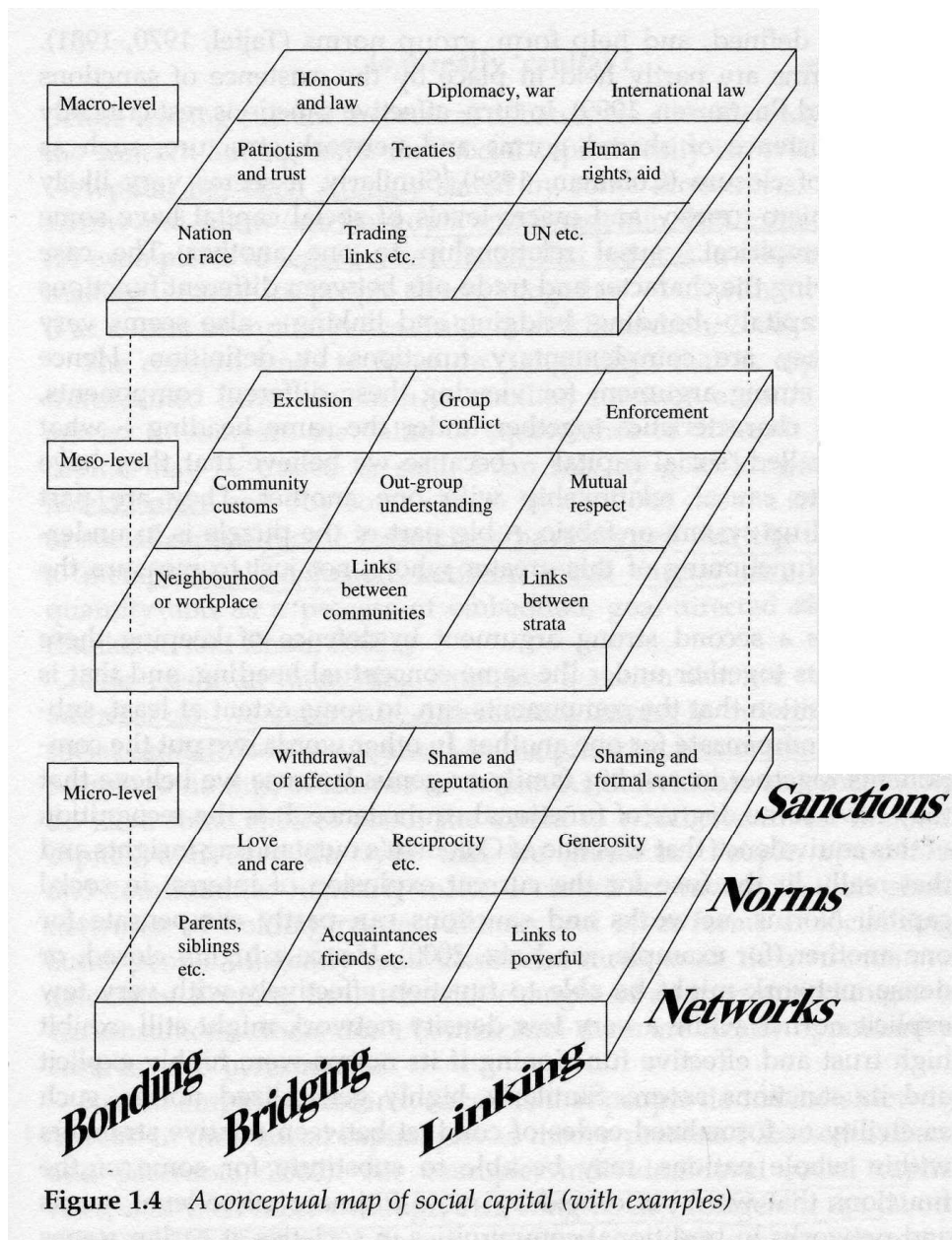
#### *A unifying concept*

There have been attempts to unify the various forms and definitions of SC into one single conceptual map. More precisely, Halpern (2005: 3) takes SC more generally to be the “everyday fabric of connection and tacit cooperation”. As pictured in figure 7, he suggests a complex and unifying model of SC along the three dimensions: components (i.e. networks, norms, sanctions), levels of analysis (i.e. individual, community, nation), and character (i.e. bonding, bridging, linking). This understanding of SC differs from the aforementioned authors (Putnam, Bourdieu, Coleman etc.) by going as far as saying that SC is synonymous to “social fabric” (ibid.: ix). Thus, for Halpern, even “the everyday habit of walking on the left in the London Underground is a form of social capital” (ibid.: ix).

Such a brave attempt to bring together various understandings of SC deserves praise, as the author tries to conceptualise SC in one single model. Critics, however, argue that “excessive extensions of the concept may jeopardize its heuristic value” (Portes, 1998: 1). Thus, “big tent” (Halpern, 2005: 16) definitions run a risk of stretching the notion of SC to the point where it becomes hard to distinguish its core, as critics often claim that the conceptual broadness of SC made the term hard to grasp (Durlauf, 2002; Fine, 2001; Portes, 1998). Therefore, a rather “lean and mean” (Woolcock, 2001: 11) definition shall be aimed for at the end of this chapter. In Halpern’s classification, however, the operationalization of SC in the empirical part of this dissertation would be located at the micro-level, within the networks component, covering bonding and bridging aspects.

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<sup>13</sup> Studies on SC and *health* confirm the finding that most influences of SC on well-being can be found at the individual level (e.g. Islam et al., 2006).



**Figure 7:** A conceptual map of social capital. (Source: Halpern, 2005: 27).

### 2.2.3 Critiques

As the previous section has shown, there is an on-going debate over the precise nature of SC. Hence, a lot of the criticism of SC revolves around the claim that the concept is too vague. Critiques range from remarks calling SC “a genotype with many phenotype applications” (Adam & Rončević, 2004: 158), up to harsher descriptions of SC as “totally chaotic, ambiguous, and general” (Fine, 2001: 155). Critics and supporters alike probably share the view, though, that “without a clear and firm theoretical basis [and] a standard measurement [...] social capital may eventually suffer the fate of faddish notions in social sciences and die” (Castiglione, 2008: 17). This is especially true if the

concept is “being adopted indiscriminately, adapted uncritically, and applied imprecisely” (Woolcock, 1998: 196) (see also Portes, 1998). The threat of SC to become abandoned as a result of not offering a distinct scientific value is widely recognised, and summarised by e.g. Lin et al. (2001: vii):

“In fact, there is a looming danger that the free flow of understanding, application, and interpretation of social capital may soon reach a point where the term might be used in whatever way it suits the purpose at hand, and thus be rendered meaningless as a scientific concept. [...] and ultimately be abandoned for its lack of distinctive features and contributions to the scientific knowledge.”

Nonetheless, SC is a relatively new notion that has been in the mainstream of the social sciences for only two decades. Consequently, it is not unusual but indeed most desirable for an intellectual discourse to take place over its precise definition. After all, “disputes of this kind occur for many of the key concepts in the social sciences that have a certain degree of complexity” (Castiglione, 2008: 17).

SC has become a term that is equally attractive to sociologists, political scientists, and economists (Svendsen & Haase Svendsen, 2009). Its interdisciplinary nature, though, has resulted in criticism from more purist scholars of each respective discipline involved. Some sociologists, for instance, seem uncomfortable with a possible shift of sociology towards economics, worrying about the term ‘capital’. In this regard, Solow (2000) argues that the term ‘capital’ was inappropriate in the context of social relations. Social connections did not function in the same way as economic capital or human capital. On the other hand, some economists are unsure about the term ‘social’ in this context. Consequently, Halpern (2005: 31) concludes on an optimistic note that:

“we see a curious dance between a group of economists worrying about the contamination of economists by ‘soft’ sociology, while a corresponding group of sociologists worry about the contamination of sociology by a ‘hard’ [...] worldview of economics. Perhaps we should see this mutual suspicion as a good sign, indicating that these rival disciplines that have too long been held apart are being forced back onto a more realistic common ground.”

Finally, some critics have argued that SC was nothing new in sociology because similar concepts have been known since Durkheim (Fine, 2001; Portes, 1998). However, while

the notion of SC is rooted in ideas of ‘civil society’ and ‘networks’, the preceding section has shown that SC is a distinct concept which adds value to the analysis of social phenomena.

### ***2.2.4 Measurement***

Just as there are several definitions of SC, there have been manifold ways of measuring it in previous studies. In his seminal contributions, Putnam (2000; Putnam et al., 1993) operationalised SC as the intensity of involvement in community and organisational life, public engagement, volunteering, informal socialising (e.g. visiting friends) and reported levels of interpersonal trust. Many scholars have subsequently applied those SC indicators in either the same or a slightly modified way.

#### **Civic engagement**

A range of studies picked organisational membership as their main indicator of SC (e.g. Grootaert, 2001; Gundelach & Kreiner, 2004; Kawachi et al., 1999; Kawachi et al., 1997; Kennedy et al., 1998; Li, 2007; Li & Ferraro, 2006; Lochner et al., 2003). In fact, as Li (2007) argues, existing studies *generally* tend to use civic membership as an indicator of SC. However, an exclusive focus on such formal SC is problematic because it is too narrow. Involvement in organisations may only be one particular facet of a person’s SC. Moreover, the simple number of memberships does not provide any information about the intensity of the SC produced here. For instance, membership in a trade union may be less intense than membership in a religious sect; or in the words of Fukuyama (2000: 101), “a bowling league is not, to say the least, capable of storming a beach” (see also Freitag, 2003).<sup>14</sup> It is therefore advisable to take the *intensity* of involvement into account, and the empirical analyses in this thesis shall do so.

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<sup>14</sup> Also, the notion of developing SC through organisational membership may be an idea that is mainly limited to industrialised, Western nations. The tendency to join formal organisations as a means of producing SC may diverge substantially across cultural and national borders, especially with respect to a distinction between the developed and developing world. In the latter group of countries, it may rather be produced through informal networks. Fukuyama (2000) reports that in Latin America and China, for instance, network ties are strong within families but lower towards strangers. Consequently, overall cognitive SC if measured by the generalised trust question would be very low, whereas trust towards an extensive family circle would be higher (Fukuyama, 1995; Kroll, 2008; von dem Knesebeck et al., 2005). Moreover, types of available associations vary between countries, as does the degree to how common the cultural habit to join formal associations is. It could be assumed, for example, that a weak welfare state, such as in the USA, actually leads to a gap that is then filled by civil society actors and organisations. However, Rostila (2007) argues that a strong welfare state actually leads to higher membership rates.

## **Social trust**

Other studies measured SC primarily but not exclusively by interpersonal trust (e.g. Bjørnskov, 2008; Brehm & Rahn, 1997; Ross et al., 2000). Many surveys, for instance the WVS, contain the so-called generalised trust question:

“Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?”

A) Most people can be trusted

B) Can’t be too careful”

The role of social trust is actually twofold in SC theory. While some researchers consider trust to be a part of the concept of SC itself, others understand trust more to be a result of SC (Fukuyama, 1995, 2000; Woolcock, 2001). In both cases, trust is used as an indicator of SC, though. Hence, trust can be both a consequence as well as a facilitator of frequently used networks (Helliwell, 2001). Either way, trust remains “a strong empirical index of social capital” (Helliwell & Putnam, 2004: 1436). In fact, Putnam (2000) showed that 85 per cent of the variability captured by a complex index of SC (including socialising with friends, entertaining guests at home, organisational membership and activity, and social trust) could as well be captured by the simple generalised trust question. Likewise, a factor analysis of numerous measures of trust (in neighbours, friends, police etc.) found that the generalised, canonical trust question had the highest loading on the principal component and the highest test-retest reliability of all items (Helliwell & Putnam, 2004). Consequently, Halpern (2005: 32) calls generalised trust the “rough-and-ready measure” of SC.

## **Combinations of indicators**

Most articles in the field of QOL research have measured SC with at least two indicators (mostly interpersonal trust and organisational membership, see for example Harpham et al., 2004; Helliwell, 2003, 2008; Helliwell & Putnam, 2004; Kennelly et al., 2003; Li et al., 2005; Pollack & von dem Knesebeck, 2004; Poortinga, 2006; Requena, 2003; Rojas & Carlson, 2005; von dem Knesebeck et al., 2005). For instance, Li et al. (2005) construct three different measures of SC drawing on data from the British Household Panel Survey (BHPS), waves 7 and 8. Their summary measures are “neighbourhood attachment” (i.e. informal SC within the neighbourhood), “social

network” (i.e. ties beyond one’s immediate family), and “civic participation” (i.e. involvement in voluntary associations).

### **Conclusion: A comprehensive, but clear measurement**

In conclusion, SC is best measured by a combination of both structural and cognitive, as well as both formal and informal sub-types. Hence, according to the UK Office for National Statistics (2003: 1), the concept should be measured by three indicators - trust, memberships, and networks:

”Levels of trust - for example, whether individuals trust their neighbours and whether they consider their neighbourhood a place where people help each other.

Membership - for example, to how many clubs, societies or social groups individuals belong.

Networks and how much social contact individuals have in their lives”

This operationalisation seems broad enough, as all vital facets that are discussed in the sub-chapter on the definitions above are included. At the same time, the three indicators are sufficiently clear in order not to be subject to the ‘vagueness critique’ of SC. Consequently, I will use a measurement that is in line with the ONS approach in my own empirical analysis later.

In fact, the analyses in this thesis ought to avoid being criticised for further watering down the concept of SC. The preceding paragraphs on the critiques of SC have illustrated how a major challenge for research in this area will be to develop a precise idea of what SC is and how it should be operationalised. The definition featured here aims to serve this purpose. In this regard, it explicitly excludes the core family (spouse, children, parents).

A clear distinction in this matter must be made, as it would not be feasible to group social ties to fellow-volunteers or friends together with those links one has with one’s children or parents.<sup>15</sup> They are of a different quality and nature, and I will only treat the first under the label ‘SC’. In future, a distinction between ‘internal SC’, i.e. ties within the core family, and ‘external SC’, i.e. ties outside the core family, may be a useful

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<sup>15</sup> Furthermore, more distant relatives will be included in the operationalisation of informal SC, see chapter 3. Also, core family variables (spouse, children) will be controlled for in the empirical analyses.

proposition for further research that is concerned with questions on the nature of family vs. non-family ties. Besides, it was mentioned earlier that some sociologists have criticised the notion of ‘capital’ as inappropriate for the study of social relationships. While such criticisms can more easily be dealt with successfully regarding friendship networks and organisational memberships, they do have more of a point when it comes to close family ties and marital relations, as the latter function according to a different logic of reciprocity. Hence, I will not stretch the definition of SC to include such core family ties.

Finally, the view taken here reflects the consensus among researchers about the fact that non-family networks in which members know each other are clear examples of SC, while other forms are more controversial. Less accepted kinds of SC include - as discussed - intimate networks such as family, but also social relationships with strangers, e.g. at the macro-level with fellow-countrymen, which are not usually considered SC in the narrowest sense of the term (Halpern, 2005: 14).<sup>16</sup>

### **2.3 The relationship between social capital and subjective well-being**

The following section will present the theoretical mechanisms that lie behind the association between the concepts discussed in this thesis, namely SC and SWB, and the state of the knowledge about empirical studies that connect those two. In other words: Why would SC contribute to people’s life satisfaction and what have previous studies found out so far? Importantly, the following pages provide a sound basis for the subsequent chapter (2.4) which will discuss what important questions have been left unanswered, and consequently which research gaps my dissertation aims to fill.

Putnam’s summary of the positive consequences of SC is quite enthusiastic: “social capital makes us smarter, healthier, safer, richer, and better able to govern a just and stable democracy” (Putnam, 2000: 290). In brief, “the more integrated we are with our community, the less likely we are to experience colds, heart attacks, strokes, cancer, depression, and premature death of all sorts” (ibid.: 326). Such statements were sometimes criticised for presenting SC as a “cure-all” (Portes, 1998: 2) for social

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<sup>16</sup> An exception is, for example, the study by Lin et al. (1999) who included marriage in their three-level model of SC consisting of a “binding” (marriage), a “bonding” (friends) and a “belonging” (civic engagement) sub-type.

problems. There are certain downsides of SC, which will be outlined in this chapter, too. Nonetheless, a large amount of recent research supports Putnam's postulations. The following chapter will look at the evidence, focussing on the effect of SC on SWB.<sup>17</sup>

### ***2.3.1 Theoretical mechanisms from social capital to subjective well-being***

#### **Social capital is a source of moral support and reduces the negative side effects of modernisation**

Networks can provide social support. More precisely, SC can buffer the effects of stress, and generate a sense of belonging. It gives the members of a network moral backing that enhances life satisfaction (Bjørnskov, 2003; Halpern, 1999; Helliwell, 2001; Helliwell & Putnam, 2004; Putnam, 2000). In a similar fashion, social connectedness provides individuals with emotional support and personal fulfilment while, at the same time, they are protected from the negative effects of social isolation (Kawachi & Berkman, 2001; Lee et al., 2008). Consequently, Thoits (1995: 64) argues: "social support is considered a coping resource – in this case, a 'social fund' from which people may draw when handling stressors."

An experiment by Kamarck et al. (1990) illustrates the effect of social support on stress levels. Participants were asked to make a public speech - a potentially stressful situation. Those participants, however, who were told that there would be someone outside the room they can call for help if needed had lower stress levels, as measured by lower blood pressure before and during the speech. So even though no help was actually called upon, simply knowing that there is potential support outside had a calming influence on the speakers (as quoted in Halpern, 2005: 84).

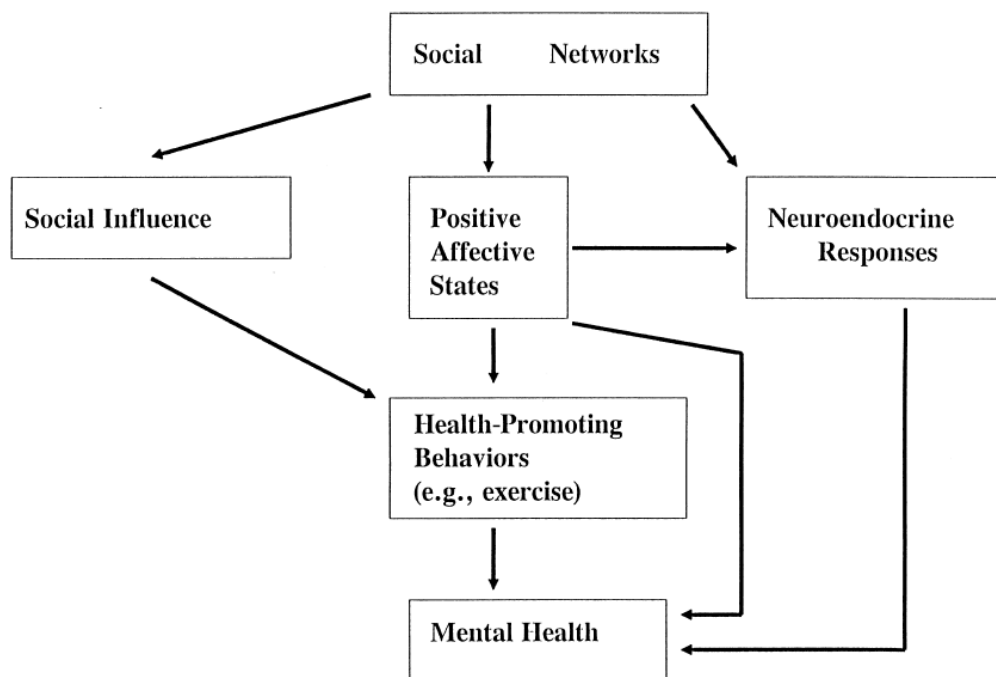
Cohen & Wills (1985) in fact developed two theoretical models showing how social ties contribute to better mental health (see also Kawachi & Berkman, 2001): the main effect model (figure 8), and the stress-buffering model (figure 9). The main effect model proposes a beneficial effect from being socially embedded for mental health in everyday situations, while the stress buffering model describes how SC improves well-being in times of increased pressure. The models offer plausible explanations of how the

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<sup>17</sup> Some of the theoretical mechanisms presented here were – albeit much more briefly and with a different focus – also discussed in Kroll (2008).

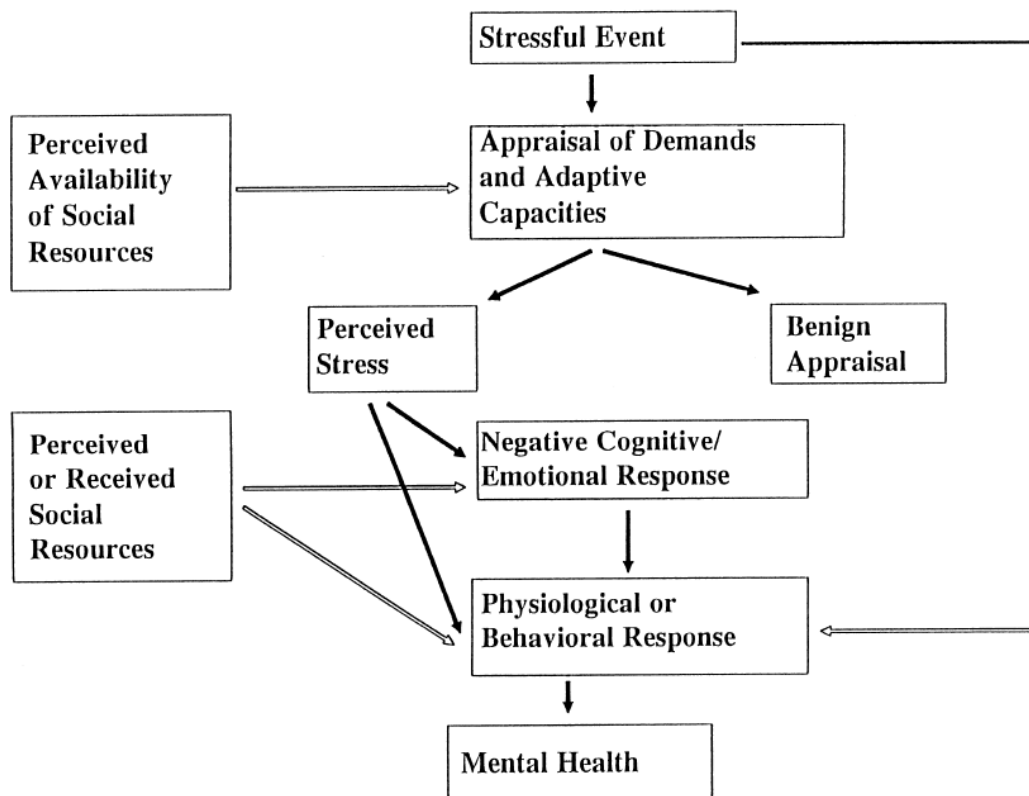


theoretical link between the two concepts SC and SWB functions in certain situations. In non-stressful times, being part of a social network makes an individual subject to social influence that can encourage health promoting behaviours. Likewise, there may be positive affective states as a direct result of socialising, leading to neuroendocrine responses and eventually improved mental health.<sup>18</sup> Meanwhile, the stress-buffering model claims that being part of social networks prevents, or at least lowers, the damaging effect of stressful events on mental health. Perceiving social support to be available may lead to a more benign appraisal of the potentially stressful situation. Just like in the aforementioned example by Kamarck et al. (1990), perceived social support dampens cardiovascular reactivity to stressful situations and prevents further negative behavioural or physiological responses that could facilitate mental health problems (Cohen & Wills, 1985; Kawachi & Berkman, 2001).



**Figure 8: Main effect model according to Cohen & Wills (1985). (Source: Kawachi & Berkman, 2001: 460).**

<sup>18</sup> It can be criticised, however, that social influence can also encourage unhealthy behaviour, e.g. teenagers may start smoking as a result of peer pressure or following their friends' smoking. Similarly, social networks may also induce negative affective states as a result of bullying or mobbing, see the section on "bad social capital" later in this sub-chapter.



**Figure 9: Stress-buffering model according to Cohen & Wills. (Source: Kawachi & Berkman, 2001: 460).**

Being socially embedded, moreover, helps individuals to cope with some of the disadvantages of modernisation, such as growing alienation and isolation. This idea had already been formulated by Emile Durkheim (1997 [1897]) who found a close link between the degree to which individuals are integrated into society and the incidence of suicide. Durkheim claims that individualisation provokes the replacement of closer, often patrimonial ties in favour of anonymous, loose networks.<sup>19</sup> The absence of functioning horizontal ties caused by individualisation and modernisation has been termed ‘anomie’ (Degele & Dries, 2005; Durkheim, 1997 [1897]). Such conditions mean that people lack a stable community base which provides support, identity and guidance. Consequently, individuals experience cognitive dissonance, disaffection, and depression, and suicide becomes more likely (Durkheim, 1997 [1897]; Woolcock, 1998).

The basic ideas as outlined by Durkheim continue to inspire today’s psychologists who indicate that individualisation is accompanied by “waning networks” (Myers, 1999:

<sup>19</sup> This development was described in a similar way by Tönnies as the transformation from “*Gemeinschaft*” to “*Gesellschaft*” (Tönnies, 2005 [1887]).

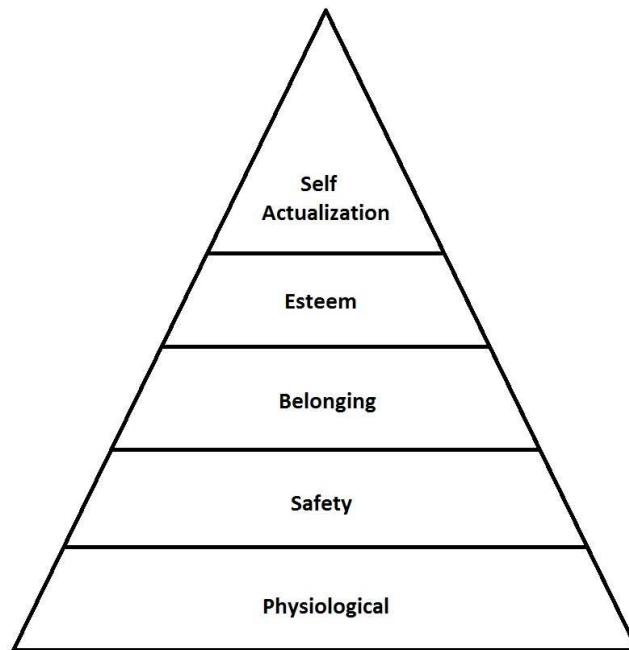
374). Decreasing face-to-face contact thus causes alienation and less trust between people. This can result in a diminished sense of community, a loss of purpose, finally leading on to depression and low SWB. Growing, sometimes even “excessive individualism” (Layard & Dunn, 2009: 27) in modern market societies makes people overlook the importance of social ties, although the “warmth of companionship” (Lane, 2000: 110) has the ability to lead to profound life satisfaction. In fact, some have argued that human well-being in the future will depend highly on whether effective mechanisms of social participation and integration can be maintained and developed (Bulmahn, 2000).

It has furthermore been argued that due to the *positive externalities* of SC, the benefits of someone’s SC are not even restricted to that person. Instead, the whole society can profit from an individual’s SC. This is the case because one’s membership in a civic association (e.g. neighbourhood watch, sports association) is usually in some direct or indirect way also beneficial to the people in one’s environment (Helliwell, 2001). Neighbourhoods, regions and even nations of high SC become environments with higher SWB because people in them support each other. Thus, SC improves the functioning of society, and environments with high levels of SC may provide individuals with mutual assistance (OECD, 2001).

”What is at play in these countries [with high amounts of SC] is probably that social capital makes life easier and more predictable by removing small obstacles in everyday life while friends, families, colleagues and acquaintances can provide moral backing and behavioural outcomes of social capital may furthermore lead to people feeling a ‘warm glow’ of being trusted and having social interactions (Croson, 1999)” (Bjørnskov, 2003: 10).

### **Social relationships as a basic human need**

From a psychological point of view, it has been shown that social relationships are a vital element of human well-being. Respondents have reported over and over again that good interpersonal relationships were prerequisites for their life satisfaction, so having good social relationships is widely considered a basic human need that is fundamental to well-being (Argyle, 1996, 1999; Blanchflower & Oswald, 2000; Donovan et al., 2002; Helliwell, 2001; Myers, 1999; OECD, 2001). It is for this reason that social belonging is a vital part of Maslow’s hierarchy of needs (figure 10).



**Figure 10: Maslow's hierarchy of needs. (Based on: Maslow, 1943).**

While numerous empirical studies will be cited in section 2.3.3, it will only be added at this stage that people were shown to experience more positive emotions when they are in company (Layard, 2003; Pavot et al., 1990), and taking part in social activities increased happiness in a 6-year longitudinal study (Menec, 2003). Also, SWB is reported to increase with the number of people that are at hand to discuss important matters with (Powdthavee, 2008). Social relationships are governed by a positive association between interaction, sharing common sentiments, and engaging in common activities (Homans, 1950). They may help to avoid negative feelings and strengthen positive emotions (Schilling & Wahl, 2002), and psychological research has shown how humorous laughter is facilitated in the company of confidants (Chapman, 1976).

Furthermore, spending time with friends is positively associated with third variables which may enhance SWB at the end of the causal chain, such as lower self-anxiety (Russell et al., 1984), higher extraversion and less neuroticism (Stokes, 1985), as well as increased self-esteem (Hughes & Demo, 1989). In other words, “people need supportive, positive relationships and social belonging to sustain well-being” (Diener & Seligman, 2004: 18).

Focusing on the effect of a lack of SC, social isolation was strongly associated with low well-being in psychological studies (Argyle, 1987; Baumeister, 1991). Social isolation puts a person at a higher risk of becoming depressed (Mirowsky & Ross, 1989). According to Seeman (1959) five factors resulting from alienation lead to psychological distress: powerlessness, isolation, self-estrangement, meaninglessness, and normlessness. Hence, people value the feeling that they are part of a supportive community.

### Social Production Function (SPF) theory: Confirmation and affection

Top level	Subjective Well-being				
	Physical Well-being		Social Well-being		
Universal goals					
First-order instrumental goals	Stimulation/Activation (optimal level of arousal)	Comfort (absence of physiological needs; pleasant and safe environment)	Status (control over scarce resources)	Behavioral Confirmation (approval for "doing the right things")	Affection (positive inputs from caring others)
Activities and endowments (means of production for instrumental goals) (examples)	Physical and mental activities producing arousal	Absence of pain, fatigue, thirst, hunger; vitality; good housing, appliances, social welfare, security	Occupation, life style, excellence in sports or work	Compliance with external and internal norms	Intimate ties, offering emotional support
Resources (examples)	Physical and mental effort	Food, health care, money	Education, social class, unique skills	Social skills, competence	Spouse, empathy, attractiveness

**Figure 11: Social Production Function (SPF) theory. (Source: Ormel et al., 1999: 67).**

According to Social Production Function (SPF) theory, people have two universal goals in life: physical well-being and social well-being. These are accomplished through five main instrumental goals, namely stimulation, comfort, status, behavioural confirmation, and affection, as illustrated in figure 11 (Nieboer et al., 2005; Ormel et al., 1999; Steverink & Lindenberg, 2006). SC can serve as a means to reach these instrumental goals, especially the latter two of affection and behavioural confirmation. Behavioural confirmation is defined as the feeling of having ‘done right’ in the eyes of relevant others, while affection consists of love, friendship, and emotional support. It is provided through caring relationships (intimate, family, friendship) (Ormel et al., 1999).

Following the theory, this would lead to reaching the universal goal of social well-being and finally SWB.

### **A network theory of social capital: Information, influence, social credentials, and reinforcement**

The aforementioned rewards for social interactions are largely intrinsic, that is to say that the initial motivation of an individual to join a network is based on the positive outcomes more or less directly related to the interaction itself. However, there are many rewards associated with social networks beyond the mere benefit of interaction per se, such as access to jobs or information. (Arrow, 2000). One comprehensive theory that pays tribute to extrinsic factors is Nan Lin's network theory of SC (2001a). For Lin, SC describes investments in social relations by which individuals gain access to resources that are embedded in these relations in order to enhance expected returns. Resources, in turn, are defined as valued goods in society. Thus, as soon as resources are invested for expected returns in the marketplace, they become SC. This theory suggests that capital is captured in networks, and a member may borrow resources, such as the other members' wealth, power, or reputation.<sup>20</sup> Consequently, individuals engage in interactions in order to produce profits for themselves.

In sum, this theory of SC focuses on how access to and use of resources benefit the individual. So when individuals invest in social relations, e.g. someone gets involved in civic organisations or socialises with friends, they are then rewarded with access to certain goods that become available through the other network members (Lin, 2001b: 55; Lin & Erickson, 2008: 4). The mechanism by which embedded resources in social networks enhance the outcomes of a member's actions may be specified by four aspects: (1) information, (2) influence, (3) social credentials, and (4) reinforcement (Lin, 2001b: 19). More precisely:

1) Networks improve information flow. Hence, social connections provide an individual with useful information about opportunities that would otherwise not be available. This

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<sup>20</sup> Resources can take the form of wealth, power, land, houses, cars, money, symbolic goods like education, memberships in clubs, honorific degrees, nobility or organizational titles, family name, reputation, or fame (Lin, 2001b: 43). Accordingly, "a friend's bicycle is one's social capital" (Lin 2001a: 56).

is especially important, for instance, when someone is looking for a job (see also Flap & Boxman, 2001; Granovetter, 1982).

2) Networks can improve members' influence and increase their chances of success. Other members can support an individual by "putting in a word" (Lin, 2001b: 19).

3) The fact that one can resort to the network as a source of support if necessary is perceived and acknowledged by others. Therefore, being member of a network can increase one's status in society. In this respect, networks serve as "certification of the individual's social credentials" (ibid.). They testify an individual's ability to mobilise resources beyond one's personal capital.

4) Social relations reassure individuals of their identity. Recognition and reinforcements are essential for the maintenance of psychological well-being.

According to Lin (2001a: 19), three types of returns stand at the end of the causal chain following those described mechanisms: physical health, mental health, and life satisfaction:

"It is expected that strong and homophilous ties promote sharing of resources, which in turn enhances life satisfaction, as indicated by optimism and satisfaction with various life domains".

In sum, individuals can resort to SC in order to achieve collective goals that they cannot reach alone. An association, for example, allows people to unite "the energies of divergent minds and vigorously directs them towards a clearly indicated goal" (Tocqueville, 1969 [1835]: 190). SC facilitates quicker and wider diffusion of ideas (Yip et al., 2006). Interacting frequently with others increases an individual's chances to get social support, useful information and helpful social contacts (House et al., 1988; Okun et al., 1984). The fact that a network can improve information flow and access to resources has also been described as being able to potentially make the difference between death and survival in a context of extreme poverty (Halpern, 2005; Woolcock & Narayan, 2000).

### **Role enhancement**

A range of studies have also drawn on the idea of *role enhancement* in order to explain the beneficial effect of SC on SWB (e.g. Greenfield & Marks, 2004; Lum & Lightfoot, 2005; Moen et al., 1992; Musick et al., 1999). According to this perspective, SC is

associated with having multiple roles for people who volunteer or who have a varied and large social network. Such a role enhancement contains a range of benefits which may increase SWB, including role-privileges, overall status security, resources for status enhancement and role performance, enrichment of the personality, ego gratification, power, prestige, resources, and a heightened sense of identity (Morrow-Howell et al., 2003; Sieber, 1974; Thoits, 1983, 1985). Up to a certain point, those benefits outweigh the stress that comes with performing multiple roles, i.e. *role strain*, resulting overall in a “net gratification” (Sieber, 1974: 567). For instance, gaining multiple social identities (e.g. the number of positions held by an individual and validated in role relationships) was negatively associated with mental illness in a study by Thoits (1983).

### **2.3.2      *The different facets of social capital and their relationship with SWB***

Following the general remarks about SC and SWB above, the next paragraphs will focus on particular facets of SC in more detail. As a result, these elaborations will produce precise hypotheses for the empirical chapters of this dissertation.

#### **Trust**

As outlined earlier when introducing the three facets of SC studied in this thesis, trust is one good overall indicator for the quality of social relationships. Where such cognitive SC (interpersonal trust) is high, social relationships must be in a good state. If people are able to trust each other, they do not need to rely on “expensive safeguards or complicated contracts to support their economic and social ventures” (Helliwell, 2001: 47). Likewise, mistrust is a demanding state which requires “expensive protective baggage” and produces stress (ibid.). Trust between people also lowers the transaction costs in society (Fukuyama, 1995, 2000) and reduces the complexity of social interactions (Luhmann, 1968). Hence, being able to trust others makes life “more enjoyable and more productive by reducing the costs of dealing with risk and uncertainty” (Helliwell, 2001: 43). Trust enables people to interact better, thus “making for a safer, more predictable, easier and therefore also probably a happier life. Most SC scholars also claim that face-to-face social interactions more directly lead to happier



lives” (Bjørnskov, 2008: 55). Thus, high trust rates are a good predictor of increased SWB levels.

“Virtually all contemporary research on subjective well-being, quality of life, happiness and satisfaction with life as a whole shows that good interpersonal relations contribute more than anything else to these desirable states. If one were to list plausible necessary conditions for good interpersonal relations, trust would certainly be included in the list” (Michalos, 1990: 619).

H<sub>8</sub>: The more someone trusts other people, the higher his / her SWB will be.

### **Civic engagement**

A strand of the literature on SC deals specifically with the positive effects of civic engagement for the active volunteers themselves. The rewards can broadly be grouped into an intrinsic and an extrinsic category.<sup>21</sup>

#### *Intrinsic rewards*

A rich associational life of an individual results in the fact that “feelings and ideas are renewed, the heart enlarged, and the understanding developed only by the reciprocal action of men upon one another” (Tocqueville, 1969 [1835]: 515). More recently, neuroscientists claim to have discovered that cooperation indeed not only rewards the individual who *receives* an altruistic act, but also the one who *commits* it. Damasio (2003: 185) argues that if an individual cooperates, positive emotions like pride and happiness are evoked through the recognition by others. Likewise, non-cooperation is more likely to result in feelings of shame and guilt especially if norms have been violated. Brain measurement during “tit for tat” experiments also reported the experience of positive emotions for those who cooperate (Layard, 2003; Rilling et al., 2002). Thus, pro-social behaviour such as volunteering is very much in the interest of the rational agent, as it increases his or her own well-being.

A range of researchers conclude that social *contributions* such as giving to others, doing things for others or volunteering may even contribute more to SWB than *receiving* support (Brown, 2003; Brown et al., 2003; Huppert et al., 2009; Meier & Stutzer, 2008; Post, 2005). For instance, Brown et al. (2003) reported how giving support to others is

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<sup>21</sup> For another survey of theories on volunteering and SWB see Meier (2007) and Meier & Stutzer (2008).

more important to longevity than receiving social support. In this sense, pro-social behaviour may lead to the volunteer feeling a “warm glow” (Andreoni, 1990: 464) and a good conscience (Bierhoff, 2002). Helping others provides many people with a sense of purpose, which lends meaning and structure to the volunteers’ lives (Musick et al., 1999; Musick & Wilson, 2003). Also, it leads to a social recognition and strengthens the volunteers’ sense of identity (Sieber, 1974).

Furthermore, many volunteers can be assumed to choose an activity that they simply enjoy doing. For instance, “people who volunteer for firefighting probably enjoy working in teams to fight fires with modern equipment” (Meier & Stutzer, 2008: 41). In the end, intrinsic motivation means that people engage in activities which provide “novelty and optimal challenge” for them (Deci & Ryan, 2000: 235).

Civic engagement may also generate feelings of usefulness and increased self-esteem (Morrow-Howell et al., 2003). Moreover, it is in the nature of many kinds of volunteering that the results of one’s work are directly visible, which can be rewarding. In a study by Argyle (1999), 67% of the interviewed volunteers reported that an important source of satisfaction was the ability to directly see the results of their work. Consequently, it seems unsurprising that volunteers say that the act of helping others simply makes them feel good (Wuthnow, 1991).

Finally, Borgonovi (2008: 2321) proposes that volunteering might contribute to happiness by shifting the volunteer’s “salient reference group in subjective evaluations of relative positions from the relatively better-off to the relatively worse-off.” According to her study using data from the US, relative income as centred around the county mean is not significantly correlated with happiness among volunteers as opposed to non-volunteers, which she argues may be due to the fact that volunteering encourages downward social comparison.

#### *Extrinsic rewards*

Volunteering may alternatively be used as an instrument for other gains that do not lie in the act itself. In other words, the motivation to volunteer may be extrinsic. For example, the activity that a volunteer performs may serve him / her to increase his / her *human capital*. Volunteering can thus be considered an investment in skills which improve a person’s standing on the labour market (Hackl et al., 2004; Menchik &

Weisbrod, 1987; Musick & Wilson, 2003). Furthermore, individuals may get involved in associations with the particular aim of getting access to the *resources* that will become available through that social network (jobs, opportunities, etc.). So next to gratitude and social recognition, volunteering also brings access to resources (Wuthnow, 1991). In addition, many employers, scholarship bodies or universities take a candidate's extracurricular activities actively into account during the selection process. Thus, being a member of a civic network improves an individual's social standing and prestige (Harbaugh, 1998). Finally, it looks like volunteers usually have higher levels of all facets of SC, and they are therefore better socially integrated in general (Wilson & Musick, 1999; Wilson & Musick, 1997; Wuthnow, 1998).<sup>22</sup>

H<sub>9</sub>: The more someone is involved in associations the higher his / her SWB will be.

### **Socialising**

Friends can be a vital source of assistance in times of distress. As a matter of fact, informal SC, i.e. connections with friends, neighbours and colleagues, can provide social support which mediates the stress resulting from minor daily hassles to major adverse life events (Irwin et al., 2008). David Hume suggested that happiness can only be pursued in connection with others (Bellebaum & Barheier, 1997). Similarly, Rook (1987) pointed out that people engage in social interactions often simply for the sake of self-disclosure, i.e. to be known and understood, to share their personal aspirations with like-minded human beings, which results in increased well-being.

Researchers have indeed bemoaned the previous focus of research on *formal* SC in relation to SWB (Li, 2007). Consequently, Stanca (2008) tries to emphasise *informal* SC and its effect on SWB. He calls his approach the quality of relational life (QRL).

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<sup>22</sup> Previous research was not able to determine which aspects of volunteering are most rewarding for SWB (Meier & Stutzer, 2008: 42). It also remains unclear which particular kind of organisation produces the greatest rewards for the volunteers in terms of SWB. So far, it has only been argued that, with particular regard to church organisations, volunteering for such associations is more beneficial to mental health (in terms of less depression) than volunteering for secular associations, at least in a US study (Musick & Wilson, 2003). This increased effect has been attributed to the idea that engagement in a religious institution "is not only volunteering within a bureaucracy but within a family and a moral community as well" (Musick & Wilson, 2003: 262). The effect could also be down to the notion that church volunteers are more likely to be intrinsically motivated than volunteers in a secular association, as young church volunteers were less likely than young people who volunteered in secular associations to state instrumental reasons for their civic engagement during a study (Wuthnow, 1995). Finally, Lim and Putnam (2010) reported that friends at church are particularly 'loaded' in terms of SWB.

“[The SC] literature has generally focused on aspects such as trust, social norms and associational activity, whereas relatively little evidence is available about interpersonal relationships. As observed by Vemuri and Costanza (2006, p.132), ‘work to create an adequate index of social capital that captures the importance of friends and family [...] would likely improve our ability to explain individual life satisfaction’. In order to fill this gap, this paper proposes a new method for measuring the quality of relational life (henceforth, QRL)” (Stanca, 2008: 1-2).

The added value to the existing measurement of SC by the extension of QRL was to include “time spent with others” and “family relations”, next to the widespread indicator “active participation to voluntary organizations” in the measurement of SC (Stanca, 2008: 4-5).

H<sub>10</sub>: The more someone socialises, the higher his / her SWB will be.

### **2.3.3 Existing empirical evidence**

Seminal empirical studies will be presented in the coming section in order to illustrate the theoretical mechanisms outlined earlier. They will be structured according to level of analysis and, in a second step, by facet of SC studied.

#### **Individual level**

In his seminal book on SC in the US, Putnam (2000) reported that SC is associated with happiness. Involvement in community, public engagement, trust and informal sociability, as measured by the General Social Survey, the DDB Needham Life Style Survey, National Election Studies and the Roper Social and Political Trends Survey, were all positively correlated with SWB. The graph in figure 12 illustrates the positive relationship between (at least moderate levels of) the SC variables (volunteering, attending club meetings and church services, and entertaining guests at home) with an index of “happiness with life”.

Similarly, Groot et al. (2007) found a significant effect of SC on life satisfaction in an analysis of GPD survey data. There is even a sizeable income-compensating effect of SC, as measured by the size of the social network, the extent of the social safety net, and membership of a union or association. Likewise, Haller & Hadler (2006) confirmed

that individuals who are participating actively in social and religious organisations have a higher SWB score than those who find themselves outside of such networks.

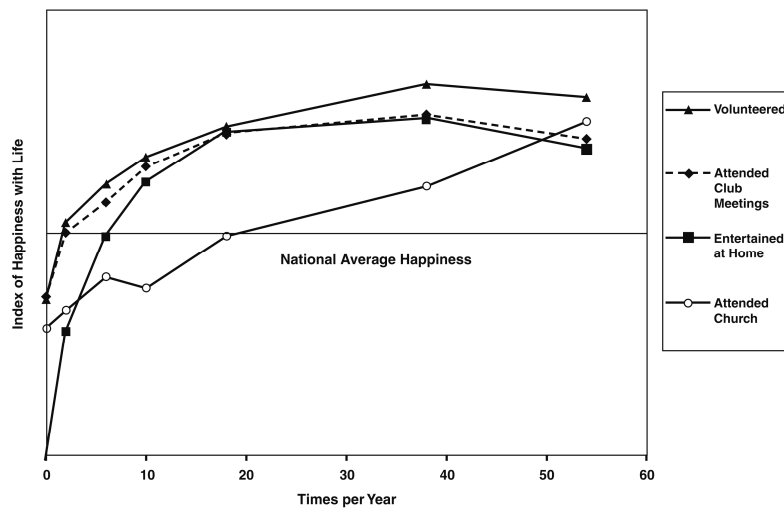


Figure 12: Social capital variables and happiness. (Source: Putnam, 2000: 334).

Further evidence comes from around the globe. A positive correlation between a composite index of trust, reciprocity and mutual help with SWB was reported by Yip et al. (2006). The authors analysed a sample of 1,218 respondents from rural China. Likewise, a study of work satisfaction in Spain found that SC is the best predictor for SWB at the work place (Requena, 2003). Studying data from a cross-sectional interview survey in East Asia (Japan, South Korea, Singapore, China, and Taiwan), Yamaoka (2007) concluded that SC is positively associated with SWB as well as health. For Ireland, too, Healy (2005) confirmed that various SC variables are positively correlated with SWB using data from the National Economic and Social Forum Questionnaire. In a similar study on the determinants of SWB in Ireland using the ESS, Delaney et al. (2006) reported that their SC variables (time spent with friends, time spent socialising, religious participation and trust) are all positively and robustly related to well-being. In fact, the SC variables dominated the model to the extent that there was no observable effect of income and education on SWB. Finally, supportive social ties could even partly compensate for the hardship that people experience in an urban slum, as reported in a study of slum dwellers in Calcutta, India (Biswas-Diener & Diener, 2001).

Decreasing levels of SC in Western societies have even been tipped as being partly responsible for the aforementioned Easterlin paradox (along with the positional and hedonic treadmill, i.e. social comparison and adaptation, see e.g. Layard et al., 2008).

Following Putnam's claim that SC has declined in the US over the last decades, Bartolini et al. (2008) examined how far decreasing levels of SC contribute to explaining the Easterlin paradox. They reported a positive association between SC and happiness and concluded from their calculations that "Americans would have experienced a sizeable increase in happiness in the presence of a stable endowment of SC.", i.e. if SC levels had remained as high as they were in 1975. In economic language, "less frequent interpersonal interactions and lower consumption of relational goods" (Stanca, 2008: 2) (see also Bruni & Stanca, 2008) may have contributed to the stagnation of SWB levels in Western societies despite decades of growing GDP.

Two qualitative studies also aimed to shed light on the association between SC and well-being. McMichael & Manderson (2004) looked at how SC relates to the psychological well-being of Somali immigrant women in Australia. In the qualitative interviews, the women reported that following immigration, their "social networks have been eroded and fractured. This is a significant source of sadness, distress, anxiety, and depression" (ibid.: 88), especially as Australian society (where they live now) is more individualised than Somali society (in which they were socialised). Previously, an ethnographic study on mental health and social isolation of old-aged Somali men living in East London by Silveira & Allebeck (2001) yielded similar results. The face-to-face interviews showed that the respondents perceive low social support and loneliness to be major factors that lead to depression and mental ill-being.

### **Aggregate level**

At the cross-national level, too, the level of SC in a country seems to be closely linked to the national mean SWB. The first scholars to notice the correlation between societies with elevated scores of interpersonal trust and increased SWB were Inglehart & Rabier (1984a, 1984b, 1986). In their seminal article entitled "Why are the Belgians so much happier than the French?" (1986) they discredited economic and linguistic explanations for international differences in SWB as insufficient. Instead, they assigned a central role for the well-being of nations to interpersonal trust. In a related paper, looking at European Values Survey (EVS) data for 11 countries they observed that nations which have superior levels of social trust tend to rank high in SWB.

The new millennium brought methodologically more sophisticated studies which also lay emphasis on examining possible spuriousness in the association. Bjørnskov (2003), for instance, noted a correlation of the SC variables generalised trust, civic participation and perceived corruption with national mean SWB. Examining 32 countries from the 4<sup>th</sup> wave of the WVS in his regression analysis, he concluded that:

“at the national level, social capital indeed seems to lead to happiness over and above its effects on income and uncertainty. While the paper corroborates the previous findings that income, economic stability, future prospects and certain other features influence people’s life satisfaction, the relationship between social capital and happiness emerges as strong and remarkably robust to testing for a set of supplementary ideas” (Bjørnskov, 2003: 14).

The bivariate correlation between his SC index and SWB was high ( $r = 0.75$ ) and strongly significant. Controlling for GNI, inflation and income inequality, the effects of SC remained significant with a beta value of  $\beta = 0.47$  and  $p < 0.01$ .

In a similar analysis of over 70 nations based on WVS data, Kroll (2008) examined the effect of SC on SWB at the cross-national level whilst distinguishing between richer and poorer countries. It was found that the importance of civic engagement and trust is greater in the first group. In the latter group, economic factors such as a country’s GDP exerted a larger impact on national mean life satisfaction levels. In richer countries, however, the importance of SC for national mean SWB exceeded that of any other economic factor included in the regression analysis (GDP, inflation, unemployment rate, inequality). Thus, Wilkinson’s assumption that “once access to the material necessities of life is assured, then the quality of our relations with each other is almost certainly the most important determinant of the real subjective quality of our lives” (Wilkinson, 2006: 8) is supported by this differentiated analysis of rich and poor countries.

Gundelach & Kreiner (2004) also reported SC to be the most important predictor of happiness. Their analysis was based on the EVS and arrived at a similar conclusion to Inglehart & Rabier two decades before.

“Societies differ in relation to the strength of their social ties, and this influences happiness independently of the individual’s social relationships. [...] There are countries that simply create more happy people than other

countries do and that the main difference between these countries lies in the social relationships” (Gundelach & Kreiner, 2004: 383).

### **Multi-level studies**

Certain other studies have measured the effect of SC on various levels, such as a seminal paper by Helliwell & Putnam (2004). Their comprehensive analysis of over 83,000 cases from the WVS, plus the US Benchmark survey with over 28,000 cases and the Canadian ESC with 7,400 cases revealed their individual and aggregate level SC variables to correlate positively with happiness, life satisfaction and subjective health. Rejecting the idea that only relative SC affects well-being (as proposed by Nie et al., 1996), they argue in favour of absolute SC to be associated with SWB.

Helliwell (2003) earlier examined SWB levels in three waves of WVS data including 46 countries by using a model featuring micro-level and macro-level variables. As a result, SC and economic factors are both positively associated with well-being at the individual level. However, income was found to have negative externalities (i.e. a higher income of one’s fellow beings has a negative effect on one’s SWB) while SC has positive ‘spillovers’. A similar result was reported by Bjornskov (2008), who found strong positive externalities of social trust with regard to happiness, based on a study of SC and happiness in the USA at state level. Clark (2008: 16), however, reported mixed results with regard to the externalities of SC within a household unit.<sup>23</sup>

“Individuals like to live in households with active members but they also want to be more active than anyone else: there is a life-satisfaction boost from being the most socially-active person in the household.”

A multi-level analysis of ESS data has been carried out by Aslam & Corrado (2007). The authors examined the impact of national, regional and individual variables, including social connectedness, on individual SWB in Europe using multi-level modelling. As a result, the authors conclude that the most significant influences of SWB lie at the individual level, followed by the regional level. With regard to SC, there were

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<sup>23</sup> In any case, SC is not subject to an adaptation effect in terms of SWB, unlike many economic factors related to happiness, such as income. However, the effect of involvement in religious associations was weaker when controlling for respondent’s religiosity. Clark (2008: 16) declares in this respect that: “It is also possible to use information from the two separate waves to consider adaptation to social capital. Is the effect of a given amount of social activity at Wave Nine smaller for those who were more active at Wave Seven? Regression analysis provided no evidence of such an adaptation effect”.



positive correlations at the micro-level, as well as some significant variables at the regional level, such as “regional average trust”. However, the effect of regional average socialising and social intimacy (i.e. having someone to discuss matters with) on SWB was even negative. Furthermore, the results varied markedly between the dataset for 2002 and the one for 2004.

Finally, Helliwell et al. (2010) show how the social and institutional context explains more variation in the international differences in life satisfaction than do income variables. Their study of the first three waves of the Gallup World Poll featuring 52,600 respondents from 80 countries yield very similar results for both the satisfaction with life question, as well as for the so-called Cantril ladder<sup>24</sup> as an outcome variable. They included several SC variables from the individual level, as well as the national level (whereby the same value was given to all individual observations in one country).

## **Studies on the different facets of social capital and subjective well-being**

### **Trust**

Many studies on the link between SC and SWB include a measure of interpersonal trust as a proxy for the quality of social relations. Positive correlations were reported, for instance by Helliwell (2003, 2008), Helliwell & Putnam (2004), Inglehart (1990) and Rotter (1980). Helliwell & Huang (2005) quantify the monetary value of workplace trust on SWB for Canada, and argue that moving up one point on a 10-point scale of workplace trust results in an increase of life satisfaction that is equal to a 40% rise in income. Meanwhile, Hudson (2006) showed that greater trust in institutions (i.e. linking SC), such as government, police and the legal system, is also positively associated with life satisfaction.

### **Civic engagement**

A body of literature examines the link between civic engagement as one particular kind of SC with positive outcomes for the volunteer. In sum, volunteers are more likely to report high SWB (e.g. Thoits & Hewitt, 2001; Van Willigen, 2000; Wheeler et al., 1998), less likely to suffer from depression (Wilson & Musick, 1999), have stronger

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<sup>24</sup> The Cantril ladder is a self-anchoring scale on which respondents have to rate themselves between 0, i.e. the worst possible life, and 10, i.e. the best possible life (Cantril, 1965).

physical health (Stephan, 1991), and they report a lower risk of early mortality (Musick et al., 1999). Mellor et al. (2009), for instance, reported a positive association between volunteering and personal well-being, as well as neighbourhood well-being in their study of 1,289 adults across Australia. What is particularly noteworthy about their study is that they controlled for psychosocial resources and personality traits that are not usually part of large surveys, but are considered to influence both volunteering and well-being. Therefore, they underline an independent mechanism of volunteering leading to increased well-being.

Similarly, Meier & Stutzer (2008: 46) reported a highly significant positive effect of volunteering on SWB controlling for other factors. Likewise, an Israeli study found that some young people claimed to have their most profound experiences of happiness in relation to pro-social voluntary activities (Magen, 1996). Morrow-Howell et al. (2003) showed that volunteering has a beneficial effect for SWB beyond simply increasing the number of friends, by controlling for informal SC (measured as contact with family and friends). At the macro-level, it is remarkable how volunteering rates vary e.g. across Europe, from 67% of the population engaged in voluntary or charitable work in Norway to only 7% in Bulgaria according to ESS data. As noted earlier, the countries that score high on volunteering also tend to have high life satisfaction levels (Plagnol & Huppert, 2009).

An interesting finding was reported by White and Dolan (2009), based on their analysis of DRM data. Distinguishing the benefits associated with different daily activities, they found that volunteering was relatively more *rewarding* than pleasurable. Meanwhile, socialising was to a similar degree rewarding and pleasurable in their study.

### **Socialising**

A number of studies have investigated the importance of informal SC, i.e. good and close connections with other people such as friends, neighbours and colleagues, for SWB. Using the shadow pricing method, Powdthavee (2008) estimates the monetary value of interactions with friends, relatives and neighbours. He reports that a change from “seeing friends or relatives less than once a month” to “seeing friends or relatives on most days” would equal an extra income of \$85,000 a year in terms of enhanced SWB. Likewise, Li (2007) concludes that having strong social ties with friends and

neighbours is positively correlated with people's happiness over and above other factors. Bruni & Stanca (2008) similarly found a positive and large effect of relational goods on life satisfaction at the individual level. Likewise, time spent with family and friends is reported to be associated with higher levels of positive affect and lower levels of negative affect (Kahneman et al., 2004).

Good social relations are related to both happiness and life satisfaction variables, as further reported by an analysis of 41 countries featuring macro- and micro-level variables using World Values Survey data (Haller & Hadler, 2006). The authors found support for their hypothesis that life satisfaction was higher among people, groups and nations where individuals are better embedded in close social relations and networks (while actually associational membership was not significantly related to SWB in this study). A related analysis of 1,500 respondents in Germany also found that strong social ties, especially intimate ties and those to relatives, friends and neighbours, are highly and positively associated with SWB (Deindl, 2005). In addition, having low social contact and few or no friends correlated with decreased levels of SWB (Lelkes, 2006). Among older people, informal activities such as visiting friends not only lead to higher life satisfaction, but also to reduced depressive symptoms (Ritchey et al., 2001). Likewise, adolescents who are well-integrated into friendship networks report better mental health (Ueno, 2005), and a survey of Black US-Americans also reported a positive correlation between social relationships (as measured by e.g. number of friends, frequency of contact with neighbours) on the one hand, and happiness and life satisfaction on the other (Taylor et al., 2001).

In sum, there is a vast body of literature showing a positive relationship between (various facets of) SC and SWB. Two more critical questions concern causality, as well as 'bad social capital', which will both be addressed in the following sub-sections.

#### **2.3.4 Causality**

For as long as the relationship between SC and SWB has been studied, the question of causality has been a heavily debated issue. Causality may indeed run both ways: SC can causally enhance SWB, as illustrated earlier by presenting many theoretical mechanisms that support this assumption. At the same time, though, it could be the case that happy people simply tend to accumulate SC more easily. While two criteria of causality (an

association between the two concepts and a lack of spuriousness) are fulfilled in most existing cross-sectional studies, the question of temporal precedence between SC and life satisfaction is more controversial and there is much less evidence. However, a number of attempts have been made by researchers to shed light onto this issue using various methods such as experiments, quasi-experiments, longitudinal data, and instrumental variables, as the following paragraphs will show.

On a similar note, many scholars do not rule out the potential existence of unobserved personality characteristics that may influence both SC and SWB as a third variable, such as extraversion (as noted by e.g. Helliwell, 2001; Helliwell & Putnam, 2004; Kawachi & Berkman, 2001; Meier & Stutzer, 2008; von dem Knesebeck et al., 2005; Yip et al., 2006).

### **Causal effects from subjective well-being to social capital**

Studies in social psychology on the construction of social identities claim that a self-selection mechanism may be at play, especially when it comes to associational membership. In other words, only a certain kind of (extroverted, happy) person decides to join a voluntary organisation in the first place (Hooghe, 2008). People with a higher SWB “should be more likely to seek (or to be sought for) community service” (Thoits & Hewitt, 2001: 115) and can be assumed to have a wider circle of friends. In fact, respondents with higher SWB scores in time period 1 (1986) performed significantly more volunteer hours at time 2 (1989), based on panel data of two waves of a US survey (Thoits & Hewitt, 2001) . Thus, past well-being is correlated with present volunteering. Similarly, Cunningham (1988) found in an experimental setting that people who are put into a pleasant mood became more sociable as a consequence. In related research, people who married had a higher chance than those who remained single of being more satisfied with life in the first place before marriage (Lucas et al., 2003; Stutzer & Frey, 2006).

### **Causal effects from social capital to subjective well-being**

On the other hand, there is ample evidence that SC causally influences SWB. Meier & Stutzer (2008) lend support to this notion based on their study of longitudinal volunteering data from the German Socio-Economic Panel study (GSOEP). They

observed that following the exogenous shock of reunification, many East Germans lost their opportunity to volunteer.

“As a result, we observed that their wellbeing decreases compared with a control group for which the volunteer status remained unchanged. The result is robust to the introduction of various control variables (e.g. job loss) and to the control of time-invariant individual heterogeneity” (ibid.: 55).

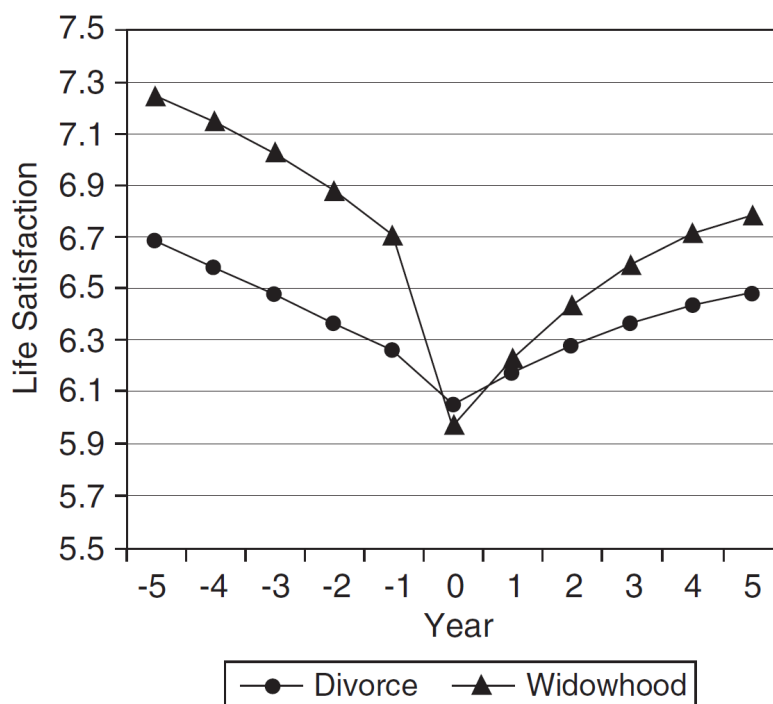
The authors concluded that this indicates a causal influence of SC on SWB. Similar analyses using panel data confirmed a strong causal effect of friendship and of sociability on SWB (Becchetti et al., 2009; Powdthavee, 2008).

Likewise, Moen et al. (1992) reported a significant positive effect of SC on physical health and longevity in their longitudinal analysis among a sample of women. A related effect was found for decreasing mortality as a result of volunteering (Musick et al., 1999; Oman et al., 1999). Using data from the Americans’ Changing Lives (ACL) survey in 1986 and 1989, van Willigen (2000) found that older adults who did not volunteer reported significantly worse health than those who did volunteer. Moreover, there was a positive and significant net effect of volunteering in 1986 on life satisfaction and perceived health in 1989. Hence, defying the self-selection and reverse causality argument, van Willigen concluded that:

“It was not simply the case that volunteers are the kind of people who are more satisfied with their lives and healthier in the first place. [...] Thus, although physical limitations may restrict volunteer activity, physical and psychological well-being do not predict volunteering” (ibid.:S312).

Other studies also reported strong associations between SC and further QOL variables for which a temporal precedence of SC is definitely given, such as suicide rates (Argyle, 1999; Helliwell, 2008), and mortality (Musick et al., 1999). Meanwhile, resorting to the technique of instrumental variables (IV), Borgonovi (2008: 2321) reports that “volunteering has a positive, causal influence on self-reported happiness”. The same is true for interpersonal trust and SWB, as another analysis using IV has shown (Bjørnskov, 2008).

Psychological experiments are another way of examining causation. Pavot et al. (1990) reported that the same individuals are happier when they are with others compared to when they are alone. Such within-person results hint towards a causal effect of SC on SWB. Likewise, Kahneman et al. (2004) found that during 14 out of 15 activities of daily living (e.g. exercising, resting, commuting, and working) the respondents' affect balance (i.e. someone's positive minus negative emotions) was more positive when people were doing them together with others; only praying seemed to be more enjoyable in solitude (see also: Krueger et al., 2008) (for the positive effects of religious activity in company see Lim & Putnam, 2010).



**Figure 13: Satisfaction with life before and after divorce and the death of a spouse. (Source: Diener & Seligman, 2004: 19).**

In another analysis of longitudinal data by Lucas et al. (2003), it was furthermore reported that people who lose a spouse through death or divorce experience lower well-being, and they take several years to return to near their initial level of SWB (as quoted by Diener & Seligman, 2004) (see figure 13). The latter authors subsequently concluded in their overview of the literature that “it is clear that positive social relationships are an important *cause* of well-being” (ibid.: 21, my italics). Summing up existing studies on the causal effect of SC on SWB, Veenhoven (2008: 10) also argues that:

“empirical research has indeed shown strong relations between intimate ties and subjective well-being, and in this case there is also evidence for causal effects of the former on the latter (e.g., Lucas, Clark, Diener, & Georgellis, 2003). The causal mechanism seems to be social support rather than protection against negative stereotyping”.

From all this evidence, the Stiglitz Commission goes as far as concluding that:

“For no other class of variables (including strictly economic variables) is the evidence for *causal* effects on subjective well-being probably as strong as it is for social connections” (my italics) (Stiglitz et al., 2009: 184).

### **Causal effects in both directions**

The aforementioned studies suggest that the association between SC and SWB is to a certain extent reciprocal. Some longitudinal analyses explicitly conclude that causality runs both ways (Li & Ferraro, 2005; Thoits & Hewitt, 2001). So even if cross-sectional studies, such as the one in this thesis, only measure correlation and not causation, we can assume that SC does indeed causally influence SWB based on previous research on this topic, while acknowledging the effects in the opposite direction from SWB to SC. Moreover, the theoretical mechanisms outlined earlier in this chapter highlight the manifold reasons why there is a plausible, causal influence of SC on SWB. In the end, Kawachi & Berkman (2001: 459) formulate the professional consensus in this regard by concluding that:

“Such difficulties notwithstanding, most researchers now agree that social ties have a salutary effect on mental health and psychological well-being.”

The perspective taken in the theoretical chapters does indeed focus more on causal effects *from SC to SWB* and not vice versa. Nonetheless, the aim of this thesis will not be to prove causality in one direction or another. Instead, slope heterogeneity in the association between SC and SWB shall be the main focus of the empirical analyses (see section 2.4 for more detailed explanations of the aims of this thesis) regardless of causation. Due caution shall hence be expressed in the Limitations section of the thesis in chapter 9.

### 2.3.5 *Bad social capital*

So far, this chapter has illustrated why SC is usually considered to be a positive outcome of social relations that enhances well-being. However, due to a range of mechanisms SC can also be negative to an individual or a society. It is important to discuss such alternative views of SC with regard to the empirical part of this thesis.

Putnam et al. were accused of presenting a one-sided view of SC because they allegedly portrayed it as an “unmixed blessing” (Portes & Landolt, 1996: 2). In all fairness, though, Putnam did mention possible downsides of SC later in his 2000 book, even if his overall conclusion of the consequences of SC remains a very positive one. In this respect, Woolcock & Narayan (2000) distinguish two views of SC. The *communitarian view* proposes ‘the more SC the better’. This perspective ignores potential downsides of SC, though. A more balanced outlook on SC is the *network view*, according to which SC can be good or bad, rather like a “double-edged sword” (ibid.: 231).

In fact, network analyses have discovered how not only happiness, but also unhappiness, spreads through social ties. A study found that when a person is happy, nearby friends have a 25 percent higher chance of being happy themselves. Moreover, the tendency to be happy is higher at the centre of social networks than at their periphery. Also, happy and unhappy people tend to cluster within a reach of three degrees of separation in a network, i.e. somebody’s happiness correlates with the happiness of people they are connected with at first or second degree (Fowler & Christakis, 2008). A similar result has been reported by Agneessens & Wittek (2008: 630) for job satisfaction. According to their study, a person is more likely to be satisfied with the job if it has interpersonal ties to people who feel the same.<sup>25</sup>

Thus, while SC certainly grants individuals valuable access to resources, it may also place a certain amount of group pressure, obligation and commitment on them. Portes (1998) pointed out four negative consequences of SC: exclusion of outsiders, excess claims on group members, restrictions on individual freedom, and downward levelling norms. The term “social cage” was proposed earlier for such phenomena (Mariansky & Turner, 1992). From a “capabilities” perspective (Sen, 1999), SC can have negative outcomes because groups with a high internal cohesion may imply a high burden of

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<sup>25</sup> Both these studies refine earlier SC research by adding that it is not only how many social ties that impacts individual well-being (popularity hypothesis). They consider the characteristics of the nodes to which people are tied. However, examination of such factors is not possible with the data sets from larger surveys but needs to be restricted to network analyses.



responsibilities and duties for the individuals in them, at the expense of their individual freedom (Comim, 2008). However, SC and connectedness also bear the potential for individuals to improve their capabilities (ibid.).

An illustration of the downsides of SC was given by Brown & Harris (1978), who investigated the effect of SC on mental health among women living on the Outer Hebrides. While higher participation in community life (church-going and craft work) was associated with lower rates of depression, it was also correlated with higher rates of anxiety disorders. Drawing on Durkheim's idea that traditional societies aim for both "réglementation" (social regulation) and "intégration", the authors concluded that participation in community life had both a beneficial, as well as a detrimental effect on women's SWB. The "repressive nature of social regulation" (Kawachi & Berkman, 2001: 463) led the women to suffer from increased anxiety disorders in this context. A similar notion was expressed by Halpern (2005: viii) by referring to "twitching curtains" in neighbourhoods with high amounts of SC, underlining that the benefits of social connectedness may come at the price of increased pressure for social conformity, observation and judgement by others.

While the majority of the aforementioned negative returns fall back on the individual, another range of important negative consequences of certain kinds of SC are not felt by the members of a group themselves, but by society around them. Especially bonding SC may exclude outsiders and unite members of a group to ends that are detrimental to parts of or the overall society. For instance, the mafia, friendship ties between corrupt politicians, the Ku-Klux clan, or terrorist networks all have a high amount of bonding SC. While the high levels of internal reciprocity and trust may facilitate the functioning of the group enormously and be beneficial for its members, the effect on the outside world may be devastating. Cartels may foster behaviour that worsens overall economic performance, 'old boy' career networks can be a barrier to social mobility and transparency, and religious groups can divide communities (Fukuyama, 2000; Graeff, 2009; Halpern, 2005; Portes & Landolt, 1996; Warren, 2008).

In fact, Olson (1982) claimed that SC in general merely protects the interest of special groups *at the expense of society*. Some studies have consequently tried to distinguish between 'Putnam groups' (from which society in general benefits), and 'Olson groups' (which are harmful to overall society) (see e.g. Bartolini et al., 2008; Den Butter &

Mosch, 2005; Knack & Keefer, 1997). The operationalisation, though, is problematic as a clear categorisation of an organisation into one of the two groups often remains rather speculative. At the end of the day, Putnam (2000: 22-23) writes that:

“Social capital, in short, can be directed towards malevolent, antisocial purposes, just like any other form of capital. [...] Therefore it is important to ask how the positive consequences of social capital — mutual progress, cooperation, trust, institutional effectiveness — can be maximised and the negative manifestations — sectarianism, ethnocentrism, corruption — minimised.“

Therefore, the empirical chapters in this thesis also ought to explore whether bad SC may need to play a more prominent role in SC theory in the future, especially as far as certain societal subgroups are concerned (see section 2.4).

### **2.3.6      *Social capital and its consequences apart from subjective well-being***

Over the past 20 years, a range of studies have examined the effects of SC on many economic, political and social outcomes. The following summary will show how there are not only *direct* links from SC to SWB. There are also *indirect* effects - through e.g. health, economic performance and democratic governance - by which SC affects well-being. The direct links from SC to life satisfaction may be better documented in the literature, and they are likely to be of greater theoretical and empirical significance (Helliwell, 2001). Nonetheless, the beneficial effect of SC for SWB through these third variables ought to be noted here.

SC has been reported to correlate with higher educational attainment (Coleman, 1988), more income equality (Kawachi et al., 1997), better child welfare, more effective government (Putnam, 1993), and lower crime rates (Halpern, 1999, 2005; Putnam, 2000), higher levels of human capital (OECD, 2001), increased social cohesion (Berger-Schmitt, 2002; Castiglione et al., 2008). For instance, with regard to democratic governance, it has been noted that the regions in northern Italy show higher levels of SC as measured by participation in associations, voting and reading newspapers on a regular basis, as well as trust towards strangers. Putnam et al. (1993) concluded that this was the reason why the political and economic systems were more developed in the

north, and that “good government is a by-product of singing groups and soccer clubs” (ibid.: 176).

### **Social capital and economic development**

SC is reported to enhance economic development when comparing countries. The reason behind it is that SC reduces the costs and risks of transactions, while it increases the opportunities for trade. All in all, this results in greater economic efficiency (see e.g. Fukuyama, 1995; Grootaert, 2001; Knack & Keefer, 1997). Figuratively speaking, “trust acts like a lubricant that makes any group or organization run more efficiently” (Fukuyama, 2000: 98). SC may therefore be called the “missing variable” when trying to explain economic outcomes only through natural, physical, financial, and human resources (Castiglione, 2008: 555). At the end of the causal chain, the economic development resulting from high SC environments may bring about an economic optimism that also affects SWB levels. Also at the individual level, studies have found people with much SC to be in an advantageous position in terms of finding employment and business opportunities, resulting in a positive economic outcome (Flap & Boxman, 2001; Granovetter, 1982).

### **Social capital and health**

Many studies have tested the link between SC and health and found a positive relationship. They hypothesised that SC improves health through psychosocial processes and health behaviours (e.g. a healthy diet, less smoking, seeking health care). SC may increase the subjective life expectancy of a person by creating reassurance about the future, by reinforcing healthy habits, by improving current health and finally the individual’s SWB (Ross & Mirowsky, 2002). Social participation increases the likelihood of an individual getting health promoting messages via information channels (Kawachi et al., 1999). SC is usually associated with more healthy behaviour, while unhealthy behaviour such as drinking, poor diet and physical inactivity are often related to social isolation (Berkman & Glass, 2000; Halpern, 2005). SC promotes good health by preventing isolation and its associated negative effects (Kawachi & Berkman, 2001).

At meso-levels, SC may be beneficial to health through the diffusion of health information, through health promoting norms, high levels of social control, lower crime rates, and access to services and amenities. Finally, at macro or state-levels, SC can be

assumed to facilitate health sector functioning and healthcare delivery (von dem Knesebeck et al., 2005). Many empirical studies support this notion (e.g. Berkman & Glass, 2000; Kawachi et al., 1999; Kawachi et al., 1997; Pollack & von dem Knesebeck, 2004; Subramanian et al., 2001). Studies in this field furthermore link SC to lower overall mortality rates (Berkman & Syme, 1979; Rojas & Carlson, 2005), lower tuberculosis rates (Holtgrave & Crosby, 2004), and higher subjective life expectancy (Ross & Mirowsky, 2002).

Although the same mechanism that was outlined earlier in relation to bad social capital and its effect on SWB also applies to health as an outcome, the literature overall suggests that SC has a positive relationship with the variables described in this subsection.

### **2.3.7 *Summary of hypotheses derived from previous research***

The preceding chapters have reflected the state of the research on SC and SWB. In doing so, a range of hypotheses were generated that shall be included in this thesis. While they will aim to corroborate (or contradict) earlier findings, a set of further hypotheses will be developed in the following chapters before the empirical part of this thesis in order to test new ideas and to significantly advance the current understanding of the association between SC and SWB.

#### **Control variables**

- H<sub>1</sub>: SWB is higher in young and old age, while it is lower in the middle age groups.
- H<sub>2</sub>: The higher someone's income the more satisfied with life he / she will be.
- H<sub>3</sub>: The SWB scores of women will be higher than those of men.
- H<sub>4</sub>: The healthier someone is the higher his / her SWB will be.
- H<sub>5</sub>: SWB levels are higher for those who are married compared to those who are divorced, widowed or separated.
- H<sub>6</sub>: People who are unemployed will have a lower SWB.
- H<sub>7</sub>: The more religious someone is the more satisfied with life he / she will be.

#### **Social capital variables**

- H<sub>8</sub>: The more someone trusts other people, the higher his / her SWB will be.
- H<sub>9</sub>: The more someone is involved in associations the higher his / her SWB will be.
- H<sub>10</sub>: The more someone socialises, the higher his / her SWB will be.

## 2.4 What research gaps does this thesis aim to fill?

### 2.4.1 *Research gaps*

This chapter will highlight the existing research gaps in the current literature that my thesis aims to address. In doing so, explicit research questions will be developed after showing deficits in the state of the knowledge and highlighting the importance of the proposed research.

A major shortcoming in the literature on SC and SWB, as presented above, lies in the fact that most previous studies assume the association between the two concepts to be identical for everyone. It is taken for granted that the relationship between SC and SWB is exactly the same for men as for women, for young as for old, for the married as for non-married, etc. However, when one thinks about this more rigorously, such an assumption is problematic in the light of sociological theory, as my study hopes to show.<sup>26</sup> Speaking in statistical terms, the existing literature on this topic assumes the slopes in the empirical relationship between SC and SWB to be homogenous across all kinds of different societal subgroups. My thesis challenges this assumption and thus wants to expand the existing knowledge about how SC affects SWB.

In short, sociological theories such as role-identity theory or socialisation theory suggest that there are differences in the association between SC and SWB by *a) gender, b) age, c) parental status, and d) marital status*, as the subsequent chapters 4-8 will argue at their respective beginning and examine empirically. Moreover, there is good reason to believe that the association between SC on SWB varies between subgroups because the theoretical mechanisms related to the effect of SC on SWB outlined in chapter 2.3.1 (e.g. SPF theory, network theory of SC, role theory) affect subgroups differently, as people have different tastes and find themselves in different circumstances (more detailed elaborations on these reasons, for instance rooted in sociological role-identity theory, will be discussed at the onset of each respective empirical chapter).

This approach will meet an important need in the SWB literature, as the criticism has been made that:

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<sup>26</sup> The respective sociological theory will be outlined in depth at the beginning of each empirical chapter. It is not feasible to develop only one overarching theoretical framework as they differ between the subgroups studied in this thesis to a certain extent.

“[a] gap in the happiness literature is the narrow focus of most of the empirical analyses on entire national populations. Arguably, there is reason to expect that the impact of country-level determinants examined varies between different subpopulations and socio-demographic characteristics” (Bjørnskov et al., 2008: 121).

Similarly, in a summary of the state of knowledge on SWB so far, Dolan et al. (2006: 76) argue that “the distribution of well-being across society and across different population sub-groups has largely been ignored in the literature to date”.<sup>27</sup> The same point is raised by Veenhoven (2007: 60) whose description of future challenges for SWB research outlines that the “problem is that there is little specification by kinds of people [i.e. societal subgroups], yet this is required”.

In a general review of the literature on social ties and mental health, it has been remarked by Kawachi & Berkman (2001: 458) that “further work is needed to deepen our understanding of [...] the characteristics of individuals who benefit the most [from social capital]”. Without conducting their own empirical analysis on this particular question, the authors hypothesise that the association from SC to SWB may particularly be modified by gender, socioeconomic position, and stage of life (ibid.: 459). Similarly, Newton (2007: 12) concludes from a review of the existing literature on SC and SWB:

“there is a need to do more work on identifying exactly which community or voluntary activities are associated with the most positive effects, and when in the life cycles these effects are most likely to occur, and who is more likely to benefit from them”.

In addition, for the particular operationalisation of SC that is volunteering, Meier & Stutzer (2008: 53) highlight that “much more research is needed to investigate the conditions under which the benefits to the volunteers of volunteering are more or less pronounced”. It needs to be examined precisely “who is likely to benefit the most from volunteering” (ibid.). Obviously, though, this question does not need to be restricted to volunteering, but needs to be answered for all facets of SC. Hence, if one was to rephrase the aim of the empirical chapters into causal language, then the goal of the analyses would be to illustrate ‘who benefits most from which kind of SC (and who

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<sup>27</sup> In the same manner, but with regard to health as an outcome variable, Kim et al. (2006: 122) argue in their analysis of US data that “the evidence on differential returns to health of community social capital [...] highlight the importance of considering heterogeneous groups and underlying complexities for average population associations”.

does not)'. However, as indicated earlier when addressing causality, the main focus of this study is on slope heterogeneity. Strictly speaking, causal interferences cannot be made robustly on the basis of this dissertation, although findings from studies using longitudinal design and the theoretical mechanisms outlined in chapter 2.3 would provide some basis for this.

A note must be made here regarding the selection of the four subgroup distinctions. Of course, many more subgroups would be imaginable, such as different ethnic groups, migrants vs. natives, or distinctions by employment status, education, socio-economic status, religious affiliation. Also, ideally one would like to distinguish all these groups at the same time.<sup>28</sup> However, a limit was imposed by the restricted scope of a doctoral dissertation. Furthermore, the four groups selected hold the strongest theoretical foundations as a distinguishing feature in the association between SC and SWB. As such, they were finally chosen after an extensive consultation process that involved presentations and feedback at academic conferences, talking to experts from a number of disciplines (see Acknowledgements), and consulting a wide range of literature. That is not to say that future studies may not find interesting results looking at other subgroups. It is an inherent part of the pioneering nature of this analysis that it is only the first step in a hopefully promising direction of academic research that will uncover many interesting findings.

Coming back to the state of the knowledge, it is noteworthy that although the need to study the relationship between SC and SWB across different subgroups has been acknowledged as a problem by a small number of scholars, even fewer have actually tried to fill parts of this prevailing research gap. Attempts to solve pieces of the puzzle are mostly restricted to using health or mental *problems* as an outcome variable, instead of (positive) SWB, as the following brief review will show. More detailed and targeted recourse to related studies from the health literature which examine slope heterogeneity among relevant subgroups will feature in each empirical chapter before the respective data analysis. The purpose of the following section is to give an overview that illustrates how my approach fits into the existing research agenda and how it will make an original contribution to it.

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<sup>28</sup> This particular point is not feasible due to limitations in sample size and the need to strike a balance between inadequate, confusing complexity on the one hand and due specificity in the examination on the other hand.

## 2.4.2 *Related studies in quality of life research involving subgroup comparisons*

### **Health as response variable**

With regard to health as response variable, Lee et al. (2008) justify their study on the differing returns<sup>29</sup> from SC in terms of better health across gender and age groups by the fact that:

“the previous studies have rarely examined the effects of both age and sex on social participation; rather, they have restricted attention to certain subject groups such as the elderly, women, or men (Bukov et al., 2002 ; Cheng et al., 2000; Hanson, 1994; Van Willigen, 2000), or they have focused on a specific social activity such as religious service attendance (Hyypä & Mäki, 2003), volunteer obligations (Van Willigen, 2000) and participation in clubs (Veenstra, 2000). Accordingly, these studies cannot explain precisely whether and why those who are involved in more social activities are healthier or if the health effects differ by age and sex” (ibid.: 1043-44).

The authors go on to explore the effects of meeting attendance, religious participation, and volunteer obligations on health differentiated by age and sex of the South Korean respondents. Furthermore, a research gap is that previous studies usually focus on one subgroup only (e.g. the elderly) and hardly compare the groups.<sup>30</sup> Hence, “studies that have examined the influence of social participation on health have examined restricted age groups, population sizes, or specific social activities” (Lee et al., 2008: 1053). For example, Morrow-Howell et al. (2003) examine the effects of volunteering on self-rated health, functional dependency, and depression for a sample consisting exclusively of older adults based on US data.

Distinguishing ethnic subgroups, Krause (2002) found older Black people gained greater benefits from church-based social support than older White people in a US study, while van Willigen (2000) reports that Blacks in the USA under age 60 had significantly smaller improvements in perceived health resulting from increased volunteer work than did non-Blacks. More recently, Beaudoin (2009) assessed whether

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<sup>29</sup> Although the studies quoted here often talk of ‘returns’, ‘benefits’, and ‘effects’, the majority of papers is actually based on cross-sectional data. Therefore, a more cautious interpretation of the findings would be of a ‘stronger relationship’ between the variables. For more details on the issue of causality and how it is treated in this dissertation see sections 2.3.4 and 9.2.

<sup>30</sup> For a review of studies focussing on SC and mental health among either young or old respondents only see Almedom (2005).



the effect of SC on health status varied between Blacks and Whites in the US. In sum, auxiliary friendship was more beneficial for Whites than Blacks.

At the same time, low-income Blacks benefited much less from auxiliary friendships than did high-income Blacks, and the same was true for low- or high-income Whites. In a related analysis, bonding SC was noted to have rather harmful effects on the health of immigrants in Sweden compared to more beneficial bridging SC (Rostila, 2008). Likewise, cross-level interactions of community SC with ethnicity were reported by Kim et al. (2006) and Engström et al. (2008). The former found support for the notion that community bonding SC has, in fact, negative externalities for the health of ethnic minorities, while the majority benefits from it in terms of increased health. Also, individuals with lower levels of SC reported lower SWB in high trust communities, while individuals with much SC stated that they were in worse health when living in low-trust environments (Kavanagh et al., 2006; Kim et al., 2006; Subramanian et al., 2002). Meanwhile, other studies reported no evidence of cross-level interaction between SC at micro and macro-levels (Poortinga, 2006; Subramanian et al., 2001).

### **Subjective well-being as response variable**

Existing studies investigating slope heterogeneity in terms of SC and SWB either focus only on volunteering as SC, or they even restrict their SC measure to a specific kind of volunteering. One analysis, for instance, investigates how the role of volunteering for SWB varies between people over vs. under 60 years of age (Van Willigen, 2000), thereby ignoring other facets of SC as well as a more differentiated age categorisation. Similarly, Krause & Wulff (2005) reported that church-based social ties matter more for older people than for younger people in terms of reduced depression symptomatology, but they neglect other kinds of SC as explanatory variables, as well as positive SWB outcomes as response variables.

Other related studies equally leave out the specific issues that this thesis aims to address. For instance, a Ph.D. thesis in this area examines whether the relationship between SC and SWB varies between the three major ethnic groups in the US, i.e. Whites, Blacks, and Latinos, but finds no differential effect (Boyas, 2007). Distinguishing subgroups of respondents who are intrinsically vs. extrinsically motivated, Meier & Stutzer (2008) conclude from their analysis with interaction terms

that intrinsically oriented people benefit more from volunteering in terms of SWB.<sup>31</sup> Bjørnskov et al. (2008) examine how 54 different aggregate political, economic, institutional, human development, and cultural factors exert differential effects by running separate regression analyses for people in low, middle, and high income groups, men and women, and people voting to the left or the right. However, the authors include as the only SC indicators “confidence in parliament and generalized trust among citizens, [which] turn out to be not robustly related to life satisfaction” (ibid.: 159) across their dataset of 90,000 observations from 70 countries.

Meanwhile, slope heterogeneity across distinct subgroups of the population for *income* and SWB was studied by Bartram (2011a). Using data from the WVS, the paper demonstrated that there is interesting heterogeneity when comparing migrants and natives in the US. The study found that the association between the variables was stronger for immigrants than for natives, although even for immigrants the correlation was relatively weak. Similarly, Clark et al. (2005) used latent class techniques to model intercept and slope heterogeneity simultaneously in the relationship between income and reported well-being across twelve European countries. The authors thereby examined “not only whether ‘money buys happiness’ but also ‘for whom it buys the most happiness’” (ibid.: C119). Clark et al. intended to “challenge the existing literature somewhat, by showing that there is slope heterogeneity in the income well-being relationship”, as people apparently differ in their ability to transform income into well-being depending on class. The probability of belonging to a certain class is correlated with individual characteristics, such as income, education and age in the study. A study by Stanca (2008) adds in this respect that the association between income and SWB is significantly stronger in nations with lower GDP per capita and higher unemployment rate, based on a study of World Values Survey data from 81 countries. Meanwhile, the effect of unemployment on well-being is stronger in nations with higher GDP per capita and a higher unemployment rate (ibid.).

On an additional note, it has been stated that future research ought to investigate interaction effects between personality and environmental conditions, as not everybody perceives their life circumstances in the same way (Diener et al., 1999: 295). Last but

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<sup>31</sup> However, the validity of the authors’ operationalisation of extrinsic vs. intrinsic motivation may be considered problematic, as they capture rather the respondent’s orientation towards family and friends versus towards income and career. In their own words, respondents “rated inter alia the following areas: family, friends, income, and career success on a four-point scale. We define the first two areas as intrinsic and the last two as extrinsic” (Meier & Stutzer, 2008: 53).

not least, Morrow-Howell et al. (2009) argue that individual characteristics may not be the only criteria by which the benefits of SC vary. Investigating the returns of volunteering among older adults, they found that lower-income and lower-educated volunteers reported more benefit in terms of feeling “better off” due to volunteering. Moreover, aspects of the volunteer experience itself, such as the amount of involvement, adequacy of training and ongoing support, and stipends also influence in how far an individual benefits from civic engagement.

### **Three facets of social capital**

Another big question in the SC literature is still which aspect of SC increases SWB to what extent. So far, comparisons of the respective effects of trust, sociability, or civic engagement on SWB are rare and there is much “confusion regarding which elements of the concept are driving the relation with happiness” (Bjørnskov, 2008: 47).

Bjørnskov (2008), as a positive example, concluded in a comparative analysis of aggregate SC in 48 US-states that social trust matters most for happiness, while the other forms (informal socialising, and even less so civic engagement) had much less of an effect on happiness. Likewise, Li (2007) argues that the distinction between informal and formal SC is an important one with regard to their respective effect on SWB, and that this distinction is not yet fully appreciated in the SC research community. In his study, only informal SC, not formal civic engagement, was significantly associated with SWB. This research gap is not restricted to SC and SWB, but extends to the literature of SC and health, according to Ferlander (2007: 126):

“it is vital to distinguish between these different forms of social capital, theoretically and empirically, because their impacts on health are likely to vary [...] More research is needed on the impact that different forms of social capital have on health”.

As a result of these shortcomings of many existing studies, this thesis will work with three distinguished measurements of SC in the empirical chapters in order to assess their relative impact on SWB: trust, membership and socialising (see section 2.2).

### 2.4.3 *Research questions for the empirical analyses*

The preceding subsection reviewed related studies, which tried to address the now often cited need for more nuanced analyses in the research areas of SC and QOL. In sum, to the best knowledge of this author, there is yet no *systematically comparative, comprehensive account of how the association between different facets of SC with SWB within a country varies by a) gender, b) age, c) parental status, d) marital status, and e) combinations of these subgroup distinctions*. Hence, this will be the contribution of this thesis in five empirical chapters.

Such an aim ought to be achieved, first, by pointing out at the start of each empirical chapter why there should be differences between the respective subgroups, based on sociological theory; and second, by systematically examining differences in the levels of SC and SWB followed by an examination of interaction effects in regression analyses using data from the ESS. In doing so, the following research questions will be pursued in the empirical part.

5. How does the relationship between SC and SWB differ by *gender*?
6. How does the relationship between SC and SWB differ across *age groups*?
7. How does the relationship between SC and SWB differ by *parental status*?
8. How does the relationship between SC and SWB differ across subgroups distinguished by *marital status*?

(N.B. Research questions 1 to 4 were already answered in the theoretical chapters.)

In order to take as much account as possible of the complexity of the social world (which is limited, on the other hand, by the sample size of a subgroup and an unreasonable complication of the interpretation), important cross-over dimensions of the aforementioned socio-demographic categories shall be examined. Hence, an additional fifth empirical chapter will look at combined subgroups, such as fathers, mothers, childless women, and childless men. Table 2 illustrates the logic behind this systematic approach in a matrix. Thus, the following questions will be subject to the more specific *combined subgroup* analysis in chapter 8.

9. How does the relationship between SC and SWB differ by *gender and parental status*?
10. How does the relationship between SC and SWB differ by *gender and age*?
11. How does the relationship between SC and SWB differ by *age and parental status*?
12. How does the relationship between SC and SWB differ by *marital status and age*?
13. How does the relationship between SC and SWB differ by *marital status and parental status*?
14. How does the relationship between SC and SWB differ by *marital status and gender*?

**Table 2: Matrix of research questions 5 to 14 and empirical chapters**

The association of SC and SWB by...	gender	age	parental status	marital status
gender	question 5 chapter 4	question 10 chapter 8.2	question 9 chapter 8.1	question 14 chapter 8.6
age		question 6 chapter 5	question 11 chapter 8.3	question 12 chapter 8.5
parental status			question 7 chapter 6	question 13 chapter 8.4
marital status				question 8 chapter 7

## 3. Methods

### 3.1 Analytical strategy

In order to maximise comparability with previous research in this area, and to increase external validity that allows the findings to be generalised to a wider population, a large-scale quantitative approach is chosen for this thesis. By challenging the assumption of slope homogeneity in the association between SC and SWB, this thesis responds to concerns raised by eminent scholars in this area of research. First and foremost, Helliwell & Putnam (2004) highlighted this issue in their seminal article. They understand their paper to be a “tour d’horizon” with the aim of pointing out promising domains for future work in the research area of SC and SWB, and they come to the conclusion that in future there is a need for:

“enhanced research to explore possible mechanisms linking social capital and subjective well-being, to look for contextual and *interaction effects*” (Helliwell & Putnam, 2004: 1445, my italics).

Interaction effects describe a statistical model in which the partial effect of an explanatory variable  $x_1$  (here: SC) on the response variable  $y$  (here: SWB) depends on the value at which another explanatory variable  $x_2$  (e.g. gender, age, marital status, etc.) is fixed:

$$y = a + b_1 x_1 + b_2 x_2 + b_3 (x_1 x_2)$$

In substantive terms, this implies an analysis of the link between SC and SWB across subgroups of society with the aim of investigating whether the association is stronger for some compared to others. In fact, a few studies quoted in chapter 2.4 have tried to compare subgroups (albeit not the precise subgroups and variable specifications that are the unique focus of this dissertation). Those previous studies, however, usually resorted to a highly problematic technique when making inferences about subgroup differences: by calculating separate regression equations for each group and testing for the significant slope of  $Y$  on  $X$  in each group separately. According to Jaccard & Turrissi, (2003: 36) this procedure is not valid:

“[In much of the applied social science literature] a group difference is said to occur if the slope is statistically significant in one group but not in the other. This is usually poor analytical practice. Most important, the analysis does not result in a formal test of the difference in slopes between the two groups and such a test is necessary if one is going to speak of group differences.”

In order to avoid such pitfalls, this dissertation will examine slope heterogeneity using the method of interaction terms. The data analysis will take place in 5 empirical chapters, distinguishing a range of societal subgroups and the respective associations between SC and SWB for those groups. The choice of subgroups is rooted in a respective sociological theory that will be outlined at the start of each empirical chapter. Hence, chapter 4 will look at the difference between men and women in this respect. Chapter 5 will distinguish age groups, while chapter 6 will examine parents and non-parents. Chapter 7 ought to shed light on married and non-married respondents. Finally, in an attempt to take account of the complexity of the social world, a final empirical chapter 8 will investigate subgroup combinations (e.g. gender and parental status, gender and age, etc.).

Each empirical chapter 4 to 7 will be structured in the same way. They all begin with a discussion of why these particular subgroups should be studied, and a brief discussion of their usual levels of SC and SWB according to the literature. This is followed by developing a specific, theoretical framework of which reasons justify the assumption of slope heterogeneity in each respective case regarding the relationship between SC and SWB. Explicit hypotheses will be formulated on the basis of those reflections. Finally, ESS data will be examined in two steps. The first analytical step consists of a look at the descriptive statistics, in order to determine the *levels* of SC across subgroups of society. The second analytical step is based on regression analyses which will test the aforementioned hypotheses of varying slopes in the SC SWB relationship.<sup>32</sup>

Breaking up the analysis into those two consecutive parts allows a thorough examination of the *revealed preferences* approach versus the SWB approach. Revealed preferences are a widespread measure of well-being, especially in economics and economic sociology. Rational choice theory and the homo economicus approach assume

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<sup>32</sup> As it is common practice in the social sciences, the choice of the reference category in the regressions shall always be guided by theoretical reasons.

human beings to act according to their preferences in order to maximise utility. Thus, the standard hypothesis of the revealed preferences approach would be that those societal subgroups that *have* a lot of SC will also be the ones that *benefit* most from it in terms of SWB. By contrast, the SWB approach identifies how certain variables are correlated with life satisfaction, and only then draws conclusions about how beneficial those variables really are. My analysis will assess the appropriateness of the default revealed preferences approach by comparing levels of SC with the associated SWB across societal groups in each of the empirical chapters.

The structure of empirical chapter 8 will be slightly different as its theoretical basis will have been outlined in the earlier chapters. Hence, it will feature a larger proportion of pure empirical data analysis and less theoretical reflection than chapters 4 to 7.

Although, strictly speaking, the response variable (generalised life satisfaction) is ordinal in nature, many past SWB studies have treated it as numerical by using ordinary least squares (OLS) (linear) regression. Using OLS, which assumes the response variable SWB to be a continuous, interval-level variable, was in the past justified by the finding that “assuming cardinality or ordinality of the answers to general satisfaction questions is relatively unimportant to results” (Ferrer-i-Carbonell & Frijters, 2004: 655). By contrast, ordered logit treats the response variable SWB as an ordinal variable whose categories from 0-10 can be put in an order, but the intervals between the categories are not necessarily treated as equal (based on the precaution that the difference between 1 and 2 on the 11-point life satisfaction scale may perhaps not be the same as the difference from 8 to 9). The coefficients that result from this method allow for the calculation of the probability by which the value on the response variable  $y$  (SWB) for a respondent is more likely to be going towards the maximum  $y$  or the minimum  $y$  depending on a one unit change in the explanatory variable  $x$  (SC). In other words, one can calculate whether the odds of a response to be in the satisfied direction (i.e.  $y \geq j$  rather than  $y < j$  for any answer category  $j$  of the life satisfaction variable) improve or decrease significantly with every category increase of SC. This thesis will therefore use both OLS and ordered logit. Given the fact that OLS is more widespread, easier to illustrate using graphs, and most readers are more familiar with it, ordered logit will function rather as a further robustness test to check whether the method makes a difference to the results.



Thus, one analysis in each chapter will treat the response variable as continuous and interval-level, whereas another will assume it to be ordinal. Potential differences will be pointed out in the respective empirical chapters.

In order to distinguish the effects across the relevant societal subgroups and to make valid statements about possible slope heterogeneity, interaction terms will be formed by multiplying the various SC variables with each of the relevant subgroup dummies. Slope heterogeneity is visualised based on the OLS coefficients using fitted values for the main results – whereby usually only the statistically significant graphs whose coefficient shows a  $p < 0.05$  will be displayed. Note that for all figures displaying such fitted values for a SC variable in relation to SWB, the control and the other SC variables are fixed at the mean.

### **3.2 Dataset and main variables**

The dataset used in this article is the third round (2006) of the ESS<sup>33</sup> as it allows the examination of various facets of SC. The analysis is restricted to the UK (N = 2394, with 1768 cases entering the regression analyses due to listwise deletion and missing values mainly on the income variable).<sup>34</sup> SWB as response variable is measured by the widely used 11-point generalised life satisfaction question: *All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely dissatisfied and 10 means extremely satisfied.* This variable was shown to be a valid and reliable indicator of the cognitive aspect of human well-being (Kahneman & Krueger, 2006).

SC is operationalised by three distinct indicators: formal SC (i.e. civic engagement), informal SC (i.e. socialising), and trust. This measurement serves to ensure maximum comparability with previous research, as well as to distinguish the respective effect of each facet of SC on SWB, and finally to comply with the definition favoured by the UK Office for National Statistics (Office for National Statistics, 2003). Formal SC is captured by an index of the respondents' involvement in work for voluntary or

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<sup>33</sup> The data and further information are available at <http://www.europeansocialsurvey.org>.

<sup>34</sup> An additional multiple imputation procedure of key models showed no significant differences to the results featuring listwise deletion. Although one could boost sample size by including further countries, such a procedure would be contrary to the argument presented in this dissertation. The point of this empirical exercise is to show if and how various societal groups have potentially heterogeneous relationships between SC and SWB. Mixing up societal subgroups from different societal contexts (such as middle-aged men from the UK and Latvia) would therefore be counterproductive.

charitable organisations, as well as how often the respondent has helped or attended activities in the local area over the last 12 months. Both items contain a 6-point answer scale ranging from *never* to *at least once a week* (Cronbach's alpha: 0.66). Informal SC is measured by asking respondents how often they meet regularly with friends, relatives or colleagues. The answers range on a 7-point scale from *never* to *every day*. Finally, trust was included as the standard "rough-and-ready indicator" of SC (Halpern, 2005: 34). It was measured by an 11-point index of whether respondents think that most people can be trusted or you can't be too careful, most people try to take advantage of you or try to be fair, and most of the time people are helpful or are mostly looking out for themselves (Cronbach's alpha: 0.70). Answers were recoded where necessary so that high scores uniformly indicate high SC. The full wording of the main variables can be found in the appendix.

### 3.3 Control variables

Several standard control variables as discussed in section 2.1 will be included in the study. Health is measured by asking people to rate their general health on a 5-point scale from *very good* to *very bad*. Answers were recoded in order to let higher scores reflect better health. Furthermore, the ESS inquires about the respondent's net household income in twelve income bands (e.g. *1,990 to under 3,310 GBP per month*). The per capita monthly income of each respondent was calculated by dividing the middle GBP value of the respective income band by the square root of the number of people in the respondent's household. Age groups (young, middle age, old)<sup>35</sup> were computed in line with a life course perspective and as a consequence of the often repeated finding of a u-shaped relationship between age and SWB. The years of full-time education enter the study, as well as a self-rating of respondents on an 11-point scale from being *not at all religious* to *very religious*. Finally, dummy variables were formed regarding marital status (married or civil partner, single, divorced, widowed, separated), unemployment, gender and parental status. For a more precise investigation and in accordance with the

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<sup>35</sup> Note that two middle age groups will feature in chapter 5, but only one middle age group in chapter 8 and as control variables in the remaining chapters. This is because the sample size of the subgroups would get very small if four age groups were further separated by gender, marital status, and parental status. Moreover, interpretation of too many slopes per output may do more harm than good because of too detailed and confusing results. But perhaps most importantly, the crucial theoretical distinction that should be tested empirically is between middle age vs. young and old age – and not lower middle age vs. upper middle age - as illustrated by role-identity theory in chapter 5. Likewise, marital status is distinguished by married or civil partner vs. single vs. separated vs. divorced vs. widowed in chapters 4 to 7, but will be simplified to the distinction married or civil partner vs. non-married in chapter 8 for the same reasons.

aims of this thesis, certain dummies were once more sub-divided in chapter 8 to enable the more nuanced subgroup analysis (e.g. fathers, mothers, childless women, childless men). A table of the descriptive statistics for all control variables is displayed in the appendix.

## 4. Gender differences in the relationship between social capital and subjective well-being

### 4.1 Introduction

#### 4.1.1 *Why is there a need to look at these subgroups?*

Does SC play the same role for both sexes? What does the relationship between SC and SWB look like for men and women? Such questions have rarely been asked, and feminist scholars have for a long time criticised that, generally, the SC literature is in fact “gender blind” (Staveren, 2002: 1) (see also Molyneux, 2002; Morrow, 2001). In other words, most previous studies on SC tend to neglect a gender perspective and do not refer to the differing mechanisms associated with SC for women and men. The causes, quality and consequences of SC, however, can be assumed to vary between the sexes (Gidengil & O’Neill, 2006). More precisely, if one was to introduce a gender perspective to the study of SC, the following aspects should be investigated, according to Gidengil & O’Neill (2006: 4):

“A gendered analysis of social capital brings to the fore larger questions about the distribution of social capital, differences in the nature of social capital, and differences in the way that social capital is used. Comparisons of the amount and type of social capital available to men and women highlight inequalities in accessing social capital and *in the returns [e.g. SWB]* to be derived from activities that generate it” (my italics).

Out of the range of possible topics regarding gender and SC, this study will focus on life satisfaction associated with the different facets of SC for men and women. More precisely, this chapter will shed light on how the social context of well-being differs between men and women.<sup>36</sup> As Osborne et al. (2009: 222) proclaim in this regard:

“This is an important avenue for future research, as it is important to consider how social capital is shaped by intersecting gender, cultural and socioeconomic inequalities, and the implications of these intersections for the health and mental well-being of diverse groups of women and men.”

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<sup>36</sup> The empirical results from chapters 4, 6, and 8.1 were published in 2010 in Social Indicators Research (Online First) as *Different Things Make Different People Happy: Examining Social Capital and Subjective Well-Being by Gender and Parental Status* (DOI: 10.1007/s11205-010-9733-1).

#### **4.1.2      *What are the subgroups' usual levels of subjective well-being?***

The effect of gender alone on SWB is disputed. While gender is routinely included as a control variable in happiness equations, findings have been highly ambivalent (see section 2.2). While women are sometimes reported to have a higher SWB, analyses that use bipolar scales found women to have higher scores on both positive and negative affect (Dolan et al., 2008). Hence, a new approach is suggested here by looking at the interaction of gender with third variables such as SC. This procedure will advance our knowledge on the unresolved issue of *the happier gender*. More specifically, taking into account third variables will illuminate under what circumstances men and women are more satisfied with their lives. Thus, a new level of complexity is introduced to the analysis by including the third variable SC in the bivariate relationships between gender and SWB.

#### **4.1.3      *How much social capital do the subgroups usually have?***

##### **Men and women have different 'social capital profiles'**

In the literature, a dichotomy can be found, evolving from previous analyses on the baseline levels of SC among men vs. women. In short, women tend to accumulate slightly more informal SC, while men are often reported to have a higher rate of formal SC. Also, the kinds of organisations that men and women participate in are rather different in nature.

Lowndes (2006: 234), for instance, observed gender-specific patterns of social activity. While men tend to get involved in associations related to sports and recreation, women have a higher chance of volunteering in the areas of health, social services and education, nurturing children and supporting others. In doing so, both sexes are reinforcing expectations about gender roles. Examining extensive SC data from the 2000 / 2001 British General Household Survey (GHS), Lowndes reported men and women to have different "social capital profiles" (ibid.: 221). Women have a higher likelihood on average than men "to know and trust their neighbors, have more contact with friends and relatives, and have access to informal sources of social support." In sum, women's SC "appears to be more strongly embedded in neighbourhood-specific networks of informal sociability" (ibid.: 221).

Analysing WVS data from over 50 countries, Norris & Inglehart (2006) confirmed that most associations are “strongly sex-segregated”, while only a few prove to be “gender neutral” (ibid.: 93). Also, women spend more time with family members and relatives. Moreover, the authors report this kind of informal SC to be negatively correlated with formal membership and engagement. On the other hand, time spent with workmates and friends, where men traditionally have higher rates than women, was positively correlated with formal civic engagement. In sum, this finding leads Norris & Inglehart to conclude that an agency explanation is most likely to account for the fact that women have lower rates of formal SC than men because “extensive networks of friends and workplace colleagues draw people into belonging to social organizations“ (ibid.: 94). In support of this notion, Putnam (1995) had also observed that working women are on average members of more associations than non-working women. Earlier, it was already claimed that men generally tend to have more ties to formal associations than women (Booth, 1972). Similarly, in her analysis of the distribution of SC in Canada, Erickson (2004) concludes that there are large gender differences in terms of SC. She sees men in an advantageous position to accumulate SC, due to the fact that “men have more strategic locations in social structure on the whole: they are better placed to meet many others, and to enter their networks” (ibid.: 48).

Umberson et al. (1996: 842) also found “striking evidence for gender differences in most relationship characteristics” in terms of the quantity and quality of social ties. Women are usually more involved in intimate and informal social ties, are more likely to have a confidant, to receive social support from friends and family, to visit friends, and to provide care to impaired individuals. For women, social ties are often more intimate and interactive. Men, on the other hand, accumulate more of the instrumental aspects of relationships, such as having someone to call on for advice or help. This notion is supported by the empirical finding that men are more successful in capitalising on their networks by using them to acquire resources such as jobs, as observed for example among Mexican immigrants in the US (Livingston, 2003).

In conclusion, the findings regarding gender differences in SC “suggest the need for considerable caution in estimating overall patterns of social capital [...] [and] studies of social capital need to take explicit account of gender, rather than assuming that this is a gender-neutral phenomenon” (Norris & Inglehart, 2006: 93). General statements about the causes and consequences of SC which do not take a gender dimension into account

therefore seem myopic. Hence, the following analysis aims to meet this urgent need of a gender perspective.

## **4.2 Theoretical arguments: Why would the association between social capital and subjective well-being differ between these subgroups?**

### **4.2.1 *Socialisation theory: Girls will be girls and boys will be boys***

Socialisation theory holds some important implications for the gendered association between SC and SWB. According to this theory, the socialisation process of children brings about gender differences in preferences, dispositions, and personality characteristics, particularly with regard to affiliative style. More precisely, women are assumed to be more at ease with intimacy, emotional communication, and close interpersonal relationships than men as a result of their particular socialisation (Cyranowski et al., 2000; Haines et al., 2008; Turner & Turner, 1999; Umberson et al., 1996). Hence, socialisation theory supposes “women to be more related and affiliated than men” (Haines et al., 2008: 167). In other words, women are socialised to emphasise relationships more, while men are socialised to be less relationship-oriented (Chodorow, 1978; Parsons, 1955).

Boys, on the other hand, are usually encouraged to show typically male behaviour patterns such as aggressiveness and competitiveness, whereas girls are often expected to restrict such feelings in favour of more empathic emotions. Refraining from aggressive behaviour then allows girls to establish close relationships more easily than boys, with the latter being caught in an inner conflict between showing aggressive behaviour and allowing intimacy (Marini, 1988; Umberson et al., 1996). These early childhood experiences have a lasting effect on how men and women form relationships in later life, and on the way they give and receive social support, with social support affecting women more strongly both when receiving it passively and when giving it actively (Haines et al., 2008; Kessler & McLeod, 1984).

Socialisation theory in this respect was enriched by Chodorow’s (1978) theory of the reproduction of mothering. According to this approach, the fact that mothers are the primary caretakers of new-born infants makes children take up a feminine identification

initially. The major gender difference is that boys are then encouraged to establish a masculine identity by breaking with that feminine identification. Girls, however, tend not to form their own gender identity but keep this initial bond. Chodorow argues that even in later life, women are more likely to build strong intimate ties and remain attached to others as they did not experience the emancipating separation experience that the boys had. Women thus maintain a stronger sense of connectedness and tend to have a “loss of self in overwhelming responsibility for and connection to others” (Chodorow, 1978: 59).<sup>37</sup>

In a similar way, Gilligan’s (1982) theory of differentiated moral development describes that gender-role socialisation makes girls develop a more fundamental moral sense of caring for others compared to boys. Just like Chodorow’s theory proclaims, women end up with a greater sense of connectedness according to Gilligan. The gender differences produced by socialisation are then in later life reinforced by the peer group, education, and the mass media, resulting in very different gender roles in society (Browne & England, 1997; Marini, 1988; Umberson et al., 1996), as the following section will further demonstrate.

#### **4.2.2      *Role-identity theory: The mother mothers and the father fathers***

*“The ruler rules, the minister ministers, the father fathers, and the son sons.”*  
*(Confucius as quoted in Biddle, 1979: 58)*

A second theoretical approach that demands the more nuanced approach to the study of the social context of well-being proposed here is role-identity theory. It suggests that normative societal expectations dictate appropriate behaviour and preferences (Mead,

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<sup>37</sup> A consequence of this “loss of self” may even be for women to be more deeply affected personally when people around them encounter problems (Jack, 1993; Kessler & McLeod, 1984). Indeed, women not only maintain more emotionally intimate social relationships, they are also more likely to give support to others, resulting in a support gap between men and women that can make the latter more susceptible to depression in dyadic relationships (Belle, 1982). Women in fact more often provide care to sick and elderly relatives, which leads Umberson et al. (1996: 839) to even conclude that “women’s roles and relationships are often seen as more demanding and less rewarding than men’s, therefore more conducive to depression”. In short, women simply “suffer more from other people’s problems” (Kawachi & Berkman, 2001: 462). Women indeed have a SC profile that reflects an ethic of care and an obligation to support others in the community, up to the point where they are actually burdened by their involvement (Boneham & Sixsmith, 2006; Molyneux, 2002; Osborne et al., 2009). Therefore, the analysis will also test if SC perhaps lowers SWB for women especially compared to men due to such a “loss of self” or if the benefit outweighs the burden.



1934; Merton, 1949; Parsons, 1951; Turner, 2001). Thus, roles are “parts played by actors in scripts written by society” (Hindin, 2007: 1). Those normative societal expectations, along with the resulting appropriate behaviour and preferences, are different for men compared to women. Hence, a gender identity “changes the ‘pay-offs’ from different actions” (Akerlof & Kranton, 2000: 717). The various facets of SC may therefore have pay-offs that are more beneficial for one gender’s SWB than for the other’s.

According to role-identity theory, behaviour is context specific and results from an individual’s social position and situation. A role-identity is defined as “an actor’s subjective interpretation of himself or herself as an occupant of a social position” (Carter, 2007: 1) (see also McCall & Simmons, 1978). Thus, the self emerges out of social interaction. More precisely, the self consists of a collection of identities, which are each based on occupying a certain role. In other words, a role-identity is basically what an individual replies to the question ‘who am I?’ (Desrochers et al., 2002; Stryker, 1968; Stryker & Burke, 2000). Hence, examples of role-identities would be father, mother, man, woman, spouse, colleague, pensioner, etc., depending on the specific social context. Role identities have an important impact on an individual’s behaviour and thinking because every role is usually accompanied by a set of meanings and expectations. The expectations that come with certain roles are internalised by the actors during their socialisation (Carter, 2007; Stryker & Burke, 2000).

The roles that people have in society and the expectations they are met with vary for men and women. This has implications for the type of SC that people accumulate, and implications for how much people value social interactions for their personal well-being. Men and women can be assumed to differ in their role identities, and in those expectations for the self. Their differing gender identities hence lead to specific patterns of behaviour and thinking, and in this case a differing perception and evaluation of the importance of (certain types of) SC for their SWB.

As a result of one’s own ideals and desires, a prominence hierarchy of one’s identities emerges. This prominence hierarchy represents one’s ideal self (Carter, 2007; McCall & Simmons, 1978). Coming back to SC and SWB, satisfaction with life may be defined as the degree to which one’s image of the ideal self is congruent with one’s perception of one’s actual self. Due to specific expectations associated with male and female roles in

society, the ideal female self is different from the ideal male self. For instance, an ideal (i.e. happy) man may have a different SC profile from an ideal (i.e. happy) woman, according to societal norms and roles. Consequently, this analysis also measures how far people's actual self (in terms of the SC they have) measures up to their ideal self (in terms of how much SC they should have according to role expectations). Since that ideal self varies between men and women, differences in the returns from SC can be expected.

#### **4.2.3 *Other considerations regarding gender differences***

On a more practical level, the roles that men and women occupy in society are associated with differing opportunities, lifestyles, and living environments, particularly with regard to the social connections that people have. The types of relationships we have may be the mere outcome of our structural opportunities, constraints and demands resulting from work and life arrangements that differ between the sexes (Umberson et al., 1996). Some have argued, for instance, that women may become socially isolated due to childrearing and family responsibilities (Cheng et al., 2000; Lee et al., 2008). There are also gender differences with regard to providing care for elderly parents and parents-in-law (Henz, 2009, 2010).

Last but not least, the type of voluntary engagement is also probably relevant for the SWB that is associated with it. As the SC profiles have shown earlier, the areas in which men tend to get involved in are often sports or recreation. Women, on the other hand, are more likely to participate in areas such as health, care and support for others. It is likely that these various kinds of associations have differing SWB effects on the volunteers.

Drawing on the example of social support from church associations, Krause et al. (2002: 27) conclude that it is the institutionalised character of the church-based SC that makes such formal SC more beneficial for men in terms of health:

“[Men] generally do not occupy a subordinate position in the church. In addition, because men do not have large networks outside of church, the assistance they receive from coreligionists may be especially useful to them. Moreover, due to socialization experiences, men may find it more difficult to ask for help when it is needed. As a result, men may find the formal

mechanisms that are established in the church for exchanging support (e.g., Bible study and prayer groups) to be especially palatable to them”.

In addition, a study on civic engagement in Germany found that men still tend to take up the more senior positions in formal associations, even in areas that have a large female majority of volunteers (BMFSFJ, 2005).<sup>38</sup> Osborne et al. (2009) similarly remarked that formal associations tend to reinforce gender inequality, which may lead to potentially severe negative consequences regarding mental health for participating women. The authors’ qualitative interviews with 30 female volunteers in South Australia brought to light a range of factors that may explain why women’s civic engagement might actually be detrimental for SWB. For instance, the female respondents reported difficulties in combining their civic engagement with their family responsibilities, a sign of the demanding expectations that women encounter in society. Moreover, they experience stress resulting from negotiating social interaction within civic groups that either reinforced gender hierarchies in favour of men, or ended up with women suffering from arguments and disputes with their fellow volunteers. In general, the nature of their participation in community groups was largely shaped by their identities as mothers. Hence, their civic engagement to them seemed rather an extension of their maternal ‘nature’ and was rather based on perceived role identities than on completely discretionary decisions (see also Campbell & Jovchelovitch, 2000). As for those women who did not have children, working with children was reportedly valued as a good way to be connected to children (a distinction by gender *and* parental status combined will be made in the analysis in chapter 8).

Regarding the aforementioned finding that civic associations may reinforce gender inequalities (BMFSFJ, 2005; Osborne et al., 2009), formal SC seen from a gender perspective may work in ways that are closer to Bourdieu’s understanding of SC than Putnam’s. While the latter praised SC mainly as a source of well-being, Bourdieu claimed that the main purpose of SC is for privileged groups (here: men) to exclude others (here: women) and to maintain existing societal hierarchies (here: patriarchal structures) (Osborne et al., 2009, see also the section on bad social capital in subchapter 2.3).

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<sup>38</sup> Inquiring about the motivation for getting involved in the first place (e.g. meeting other people, improving society, etc.), no gender difference was observed in the study (apart from the fact that men have a very slightly higher chance than women of viewing their involvement as a sort of political engagement). Last but not least, the report corroborates the finding that women tend to get involved in areas based on health and caring for others (BMFSFJ, 2005).

Moreover, as a result of the gender differences proposed by role-identity and socialisation theory, the theoretical links from SC to SWB as outlined in chapter 2.3 may affect men and women differently. For instance, women's socialisation towards a more relationship-oriented identity would mean that they appreciate confirmation and affection, as described by the social production function (SPF) theory, more for their SWB than men. With regard to stress-buffering - as illustrated in the theoretical model by Cohen & Wills (1985) - women are reported to mobilise more social support in times of stress than men (Belle, 1982). One example for this ability to handle stress is that after the death of a spouse, widows are better able to cope in terms of physical and mental health than widowers as found in a study by Stroebe & Stroebe (1983).

Men, on the other hand, are likely to value the instrumental aspects of SC more than women, given their aforementioned orientation towards the practical aspects of friendships (such as getting someone's practical advice) (Umberson et al., 1996). Hence, for men the extrinsic factors associated with SC, as outlined in Lin's network theory of SC in sub-chapter 2.3, would be more crucial in explaining how certain types of SC increase their SWB.

### **4.3 What have related studies found?**

Although the positive association between SC and SWB is well-established in the QOL literature, few studies have tried to examine how this link varies by *gender*. Also, existing evidence on this topic is sparse in general and the cited works stem from different cultures and regions. Actually, results were so far found only regarding gender differences in the effect of SC on *health* or on mental *illness* – and the results were mixed (studies on health: Denton et al., 2004; Denton & Walters, 1999; Ellaway & Macintyre, 2007; Gallicchio et al., 2007; Kavanagh et al., 2006; Khawaja et al., 2006; Krause et al., 2002; Lee et al., 2008) (studies on mental illness: Ahem & Hendryx, 2008; Cyranowski et al., 2000; Haines et al., 2008; Jeon et al., 2007; Lindstrom & Mohseni, 2009; Turner & Turner, 1999; Turner & Marino, 1994; Umberson et al., 1996). Also, many studies concentrate only on volunteering as SC, and they often examine only one subgroup as opposed to comparing two groups.

## **Studies with mental illness as dependent variable**

Ever since Umberson et al. (1996) bemoaned a lack of research of gender differences in the effects of SC on mental health, few scholars have followed their appeal.

“Although most studies [on social support and psychological functioning] include a control variable for sex of respondent, the possibility of gender differences in the effect of social support on well-being typically is not explored” (ibid.: 839).

Those scholars who did follow in their footsteps, however, found contradicting evidence. Umberson et al. themselves investigate whether relationships affect the psychological functioning of men and women differently by estimating the effects of social ties on depression and alcohol use, based on US survey data. While they noted striking gender differences in terms of the quantity and quality of SC (with women having many more, and closer, social ties), they did not find any gender differences in the correlation between social relationships and psychological functioning. Contrary to their hypotheses, women were not more psychologically sensitive than men to the circumstances and quality of their relationships. More precisely, social relationships affect levels of depression and alcohol use of men and women in almost equal ways. The only significant finding of a gender difference in this respect was that informal social integration decreased the probability of being non-drinkers among men but not among women, and having a confidant was positively correlated with alcohol consumption for men only. Interestingly, though, “if women did not have higher levels of social involvement than men, they would exhibit even higher levels of distress relative to men than they currently do” (ibid.: 837).

More than ten years after the aforementioned article, Haines et al. (2008: 165) still argued that existing

“studies have largely neglected the question of whether network structure may affect perceptions of social support or depressive symptoms of women and men in different ways or to different degrees. [...] correcting that deficiency is important.”

Consequently, the authors hypothesised that there are gender differences in the relationships of network structure and perceived adequacy of social support to

depressive symptoms, and that the effect of networks on mental health is stronger for women, based on a sample of over 500 US Hurricane victims. The only observable gender difference regarding mental illness, however, was that being embedded in a larger network increased depression for women only.

Ahem & Hendryx (2008) reported in their analysis of the Wisconsin Longitudinal Study that community participation, in the form of volunteering, religious attendance, and engagement in community organisations, was related to reduced risk of first-time depressive symptoms among women but not among men. This finding supported their hypothesis that community participation protects women from depression more than it protects men. Men's risk factors in getting depressive symptoms were instead pain and low income. For women, additional risks next to low community participation were widowhood and lower education.

Turning to elderly Koreans, Jeon et al. (2007) investigate gender differences in the correlates of mental health among 930 people aged 65 years or older who took part in the Korean National Health and Nutrition Examination Survey. They found a gender difference, in that living alone was significantly associated with depressive symptoms and suicidal ideation among men but not women. Kavanagh et al. (2006) report a gender difference between SC variables and health. In their Australian study, political participation and neighbourhood safety were positively associated with better women's health, but not men's.

No gender difference, however, was found when examining the effect of SC on depression by Turner & Marino (1994). The authors report social support from several relationships to have similar effects on men's and women's levels of depression. Similarly, Gallicchio et al. (2007) noted that despite a large gap in health related quality of life between men and women, SC was not responsible for the difference, as social support had the same effect among men and women. Last but not least, Fischer & Rodriguez (2008) examined gender differences in the effect of political institutions on suicide in Swiss regions.

### **Studies with general health as dependent variable**

Krause et al. (2002) show that formal church-based social support is associated with better health, and how this varies by gender. The authors investigate the gender differences using data from a longitudinal nationwide survey of members of the Presbyterian Church in the USA. As a result, men benefit more from church-based support in terms of better health.

In a study based on data from the Canadian National Population Health Survey, Denton & Walters (1999) found that social structural factors, such as being in the highest income category, working full-time, caring for a family and having social support, play a more important role for health among women compared to men. This finding was confirmed when Denton et al. (2004) examined data from the Canadian National Population Health Survey, showing that self-rated health, functional health, chronic illness and distress depend more on social structural and psychosocial determinants for women, while behavioural determinants such as smoking, alcohol consumption, and physical activity were more important predictors for men's health status.

Lee et al. (2008) explored the effects of meeting attendance, religious participation, and volunteer obligations on health differentiated by age and sex, based on data for 59,000 South Korean respondents. The results indicated that the association between social participation and self-rated health became stronger with age and was larger in women than in men. In fact, the beneficial effect of SC was maximised in elderly women. Finally, Khawaja et al. (2006) found support for the notion that formal SC is more beneficial for men compared with women, at least in a deprived context. Their study of Palestinian refugees living in a camp in Jordan showed that civic engagement was a powerful predictor of health among men, but not among women. The authors end by hypothesising that in this particular context, women's low literacy and a persisting patriarchy were responsible for the non-significant correlation among women.

### **Studies with SWB as dependent variable**

Almost no work exists on gender differences regarding the effect of SC on the response variable SWB, to the best knowledge of the author. One broadly related analysis, on the determinants of happiness and life satisfaction by gender, was conducted as part of a cross-national comparison by Bjørnskov et al. (2008), who examine how 54 different

aggregate political, economic, institutional, human development, and cultural factors exert differential effects by running separate regression analyses for men and women. Of all the many macro-factors they examine, most work in the same way for men as for women. An exception is that living in a post-communist country is more detrimental to women's life satisfaction than men's. Moreover, a Buddhist or an Islamic tradition in one's home country was more conducive for women's SWB. Likewise, Lindstrom & Mohseni (2009) found that political trust in the Riksdag (the national parliament in Sweden) was positively associated with SWB in a similar magnitude for men and women. For teenagers, Schwartz et al. (2009) examined gender differences in the relationship between helping behaviour with health and well-being. However, their focus was on altruism during adolescence, rather than on three kinds of SC and their relationship with life satisfaction among adults, as is the case in this chapter.

In conclusion, the following analysis will focus on variables that still mark a blind spot in the existing literature. Central to this chapter will be how three facets of SC (interpersonal trust, civic engagement, and informal socialising) are related to SWB in terms of life satisfaction by gender.

#### **4.4 Hypotheses**

In sum, the theoretical arguments outlined earlier lead to the formulation of the following hypotheses:

- H<sub>11</sub>: The relationship between SC in terms of *trust* and SWB will vary between men and women.
- H<sub>12</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary between men and women.
- H<sub>13</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary between men and women.



## 4.5 Analysis and results

Table 3 contains the descriptive levels of SC and SWB without controlling for other factors. It turns out that men's and women's levels are very similar regarding informal SC, as well as concerning trust. Women have significantly higher scores on civic engagement, which in some earlier studies was reported to be higher among men. The distribution (not pictured here) of SC was almost identical between men and women. Finally, the sexes are almost equally satisfied with their lives, with men reporting only a slightly higher score.

**Table 3: Descriptive statistics, life satisfaction and social capital by gender**

<b>Means (Std. Dev.)</b>	<b>Life Satisfaction</b>	<b>Trust</b>	<b>Civic Engagement</b>	<b>Socialising</b>	<b>N</b>
Women	7.22 (1.98)	5.62 (1.60)	1.38* (1.53)	4.10 (1.55)	1257
Men	7.23 (1.91)	5.58 (1.64)	1.24* (1.46)	4.08 (1.57)	1137
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , p \*\*  $\leq 0.01$ , p \*  $\leq 0.05$ .

The unstandardised OLS estimates for the response variable life satisfaction are shown in table 4 while the ordered logit coefficients are displayed in table 5 as a further robustness test. The following section will examine the findings in more detail. The OLS regression models 1 and 2 in table 4 largely corroborate earlier findings from the SWB literature. In terms of the control variables featured exclusively in model 1, life satisfaction is significantly higher among those who are healthy, rich, of old age, married, not unemployed, and religious. Likewise, model 2 confirms the positive association between all three facets of SC and life satisfaction. The more people trust others, as well as the more formal and the more informal SC they have, the higher is their life satisfaction.

**Table 4: Unstandardised OLS estimates, correlates of life satisfaction; social capital by gender**

	1	2	3	4
constant	5.343***	4.059***	4.189***	4.263***
health	0.513***	0.428***	0.430***	0.441***
income	0.164***	0.132**	0.133**	0.127**
female	0.020	-0.005	-0.235	0.315
aged 15-29 ( <i>ref.30-64</i> )	0.210	0.203	0.191	0.205
aged 65+	0.582***	0.404**	0.401**	0.404**
single ( <i>ref. married</i> <sup>39</sup> )	-0.364*	-0.419**	-0.415**	-0.416**
separated	-0.976**	-0.992**	-0.990**	-1.011**
divorced	-1.083***	-0.987***	-0.969***	-1.004***
widowed	-0.532**	-0.608**	-0.611**	-0.643**
unemployed	-0.708**	-0.811**	-0.819**	-0.818**
education in years	-0.006	-0.019	-0.020	-0.021
parent	0.034	0.037	0.021	0.014
religiosity	0.064***	0.046**	0.046**	0.045**
trust		0.205***	0.213***	0.077
civic engagement		0.067*	0.102*	0.328**
informal socialising		0.162***	0.110**	0.228
female x trust			-0.022	-0.219
female x civic eng.			-0.069	-0.411*
female x socialising			0.110*	0.157
trust sq				0.013
civic eng. sq.				-0.057*
socialising sq.				-0.016
female x trust sq.				0.018
female x civic eng. sq.				0.085*
female x socialising sq.				-0.007
Observations	1768	1768	1768	1768
R square	0.133	0.186	0.189	0.194
Adjusted R square	0.127	0.179	0.180	0.183

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

<sup>39</sup> As outlined in the methods chapter, the full title of the category is “married or civil partner”.

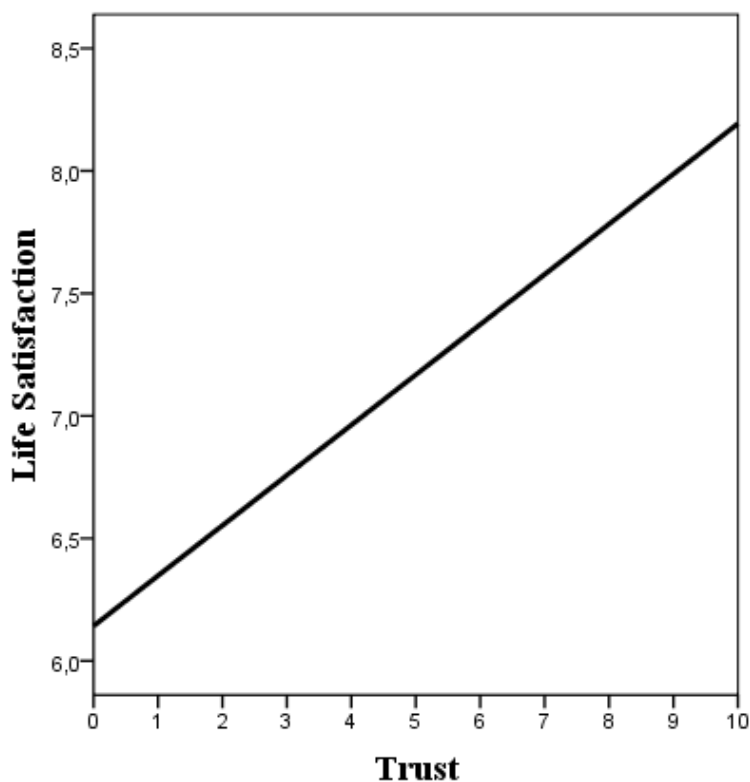
**Table 5: Ordered logit, correlates of life satisfaction; social capital by gender**

	1	2	3	4
Life Satisfaction = 0	-3.320***	-2.148***	-2.233***	-2.860***
Life Satisfaction = 1	-2.769***	-1.592***	-1.676***	-2.306***
Life Satisfaction = 2	-2.178***	-0.994**	-1.078**	-1.711**
Life Satisfaction = 3	-1.250***	-0.067	-0.150	-0.789
Life Satisfaction = 4	-0.599*	0.598*	0.517	-0.122
Life Satisfaction = 5	0.253	1.485***	1.406***	0.765
Life Satisfaction = 6	0.838**	2.086***	2.010***	1.367**
Life Satisfaction = 7	1.733***	3.026***	2.951***	2.313***
Life Satisfaction = 8	3.166***	4.506***	4.431***	3.814***
Life Satisfaction = 9	4.353***	5.725***	5.650***	5.052***
health	0.530***	0.453***	0.458***	0.480***
income	0.131**	0.103*	0.104*	0.105*
female	0.063	0.037	-0.126	0.559
aged 15-29 ( <i>ref.30-64</i> )	0.143	0.153	0.142	0.148
aged 65+	0.635***	0.473***	0.467***	0.458**
single ( <i>ref. married</i> )	-0.265	-0.349*	-0.342*	-0.335*
separated	-0.751**	-0.891**	-0.888**	-0.930**
divorced	-0.978***	-0.912***	-0.893***	-0.969***
widowed	-0.451*	-0.561**	-0.558**	-0.625**
unemployed	-0.661**	-0.757**	-0.767**	-0.810**
education in years	-0.011	-0.026*	-0.026*	-0.027*
parent	0.048	0.030	0.021	0.016
religiosity	0.058***	0.045**	0.045**	0.043**
trust		0.212***	0.218***	-0.109
civic engagement		0.084**	0.120**	0.352**
informal socialising		0.148***	0.107**	0.100
female x trust			-0.018	-0.292
female x civic eng.			-0.074	-0.515**
female x socialising			0.090	0.226
trust sq				0.032*
civic eng. sq.				-0.059*
socialising sq.				0.001
female x trust sq.				0.024
female x civ.eng. sq				0.108**
female x soc. sq				-0.019
Observations	1768	1768	1768	1768

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

Fitted values in figures 14 to 16 illustrate the findings. In the same way as all the following figures of this kind, the graphs were calculated by fixing the control variables and those SC variables which are not the respective x in each figure at a certain value.<sup>40</sup> Thus, to illustrate, for figure 14 the regression equation (based on the coefficients in model 2 of table 4) is the following.

$$y = 4.059 + 2.99 \cdot 0.428 + 1.502 \cdot 0.132 - 13.5 \cdot 0.019 + 3.99 \cdot 0.046 + 4.09 \cdot 0.162 + 1.31 \cdot 0.067 + x \cdot 0.205$$



**Figure 14: Fitted values for trust and life satisfaction (full sample)**

<sup>40</sup> The value at which the controls and the alternative SC variables are fixed is usually the sample mean or (in the case of dummy variables) the reference category. However, this decision only affects the intercept. The important value here is the slope in the relationship between the respective SC variable under study and SWB.

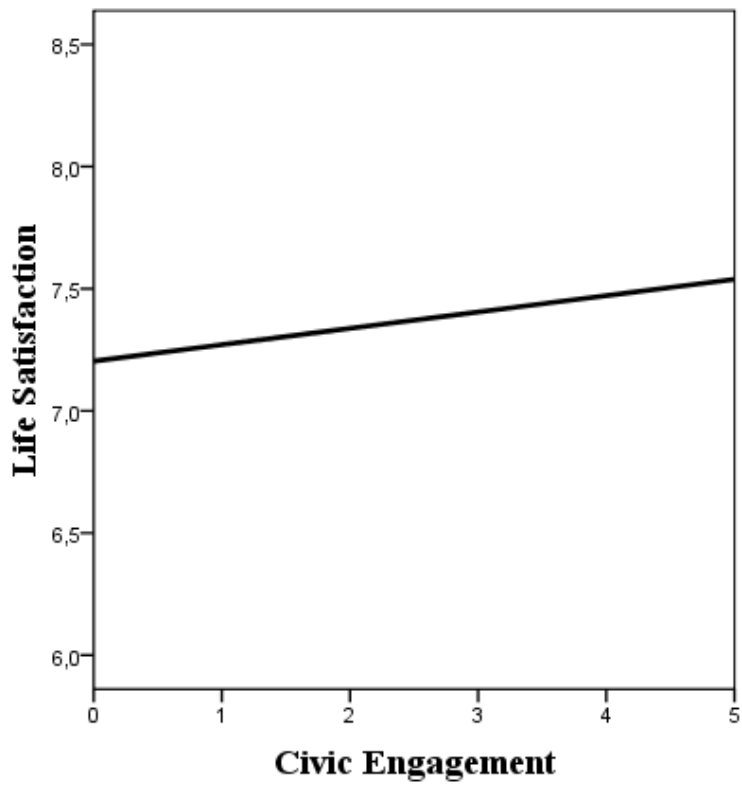


Figure 15: Fitted values for civic engagement and life satisfaction (full sample)

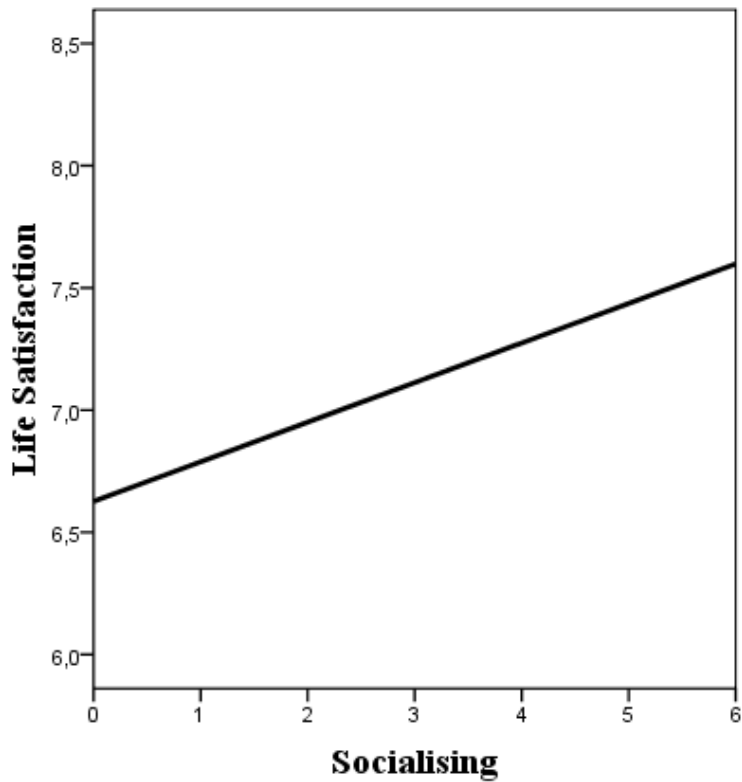
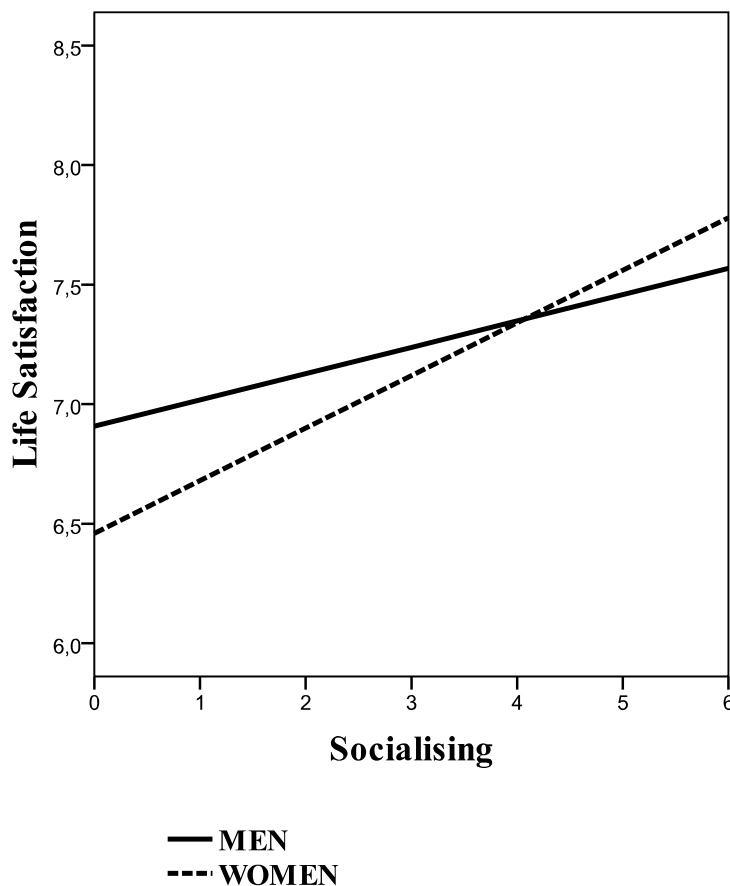


Figure 16: Fitted values for socialising and life satisfaction (full sample)

The patterns found in the OLS regression are confirmed by the ordered logit in terms of direction, significance, and approximate relative size of the coefficients. The only deviation in table 5 is that once SC variables were entered, the control variable income is no longer significant, while education then becomes significant. Nonetheless, the results for the analytical variables are reiterated, in the sense that the odds of a response being in the satisfied direction (i.e.  $y \geq j$  rather than  $y < j$  for any answer category  $j$  of the life satisfaction variable) improve significantly with every category increase of SC.



**Figure 17: Fitted values for socialising and life satisfaction by gender**

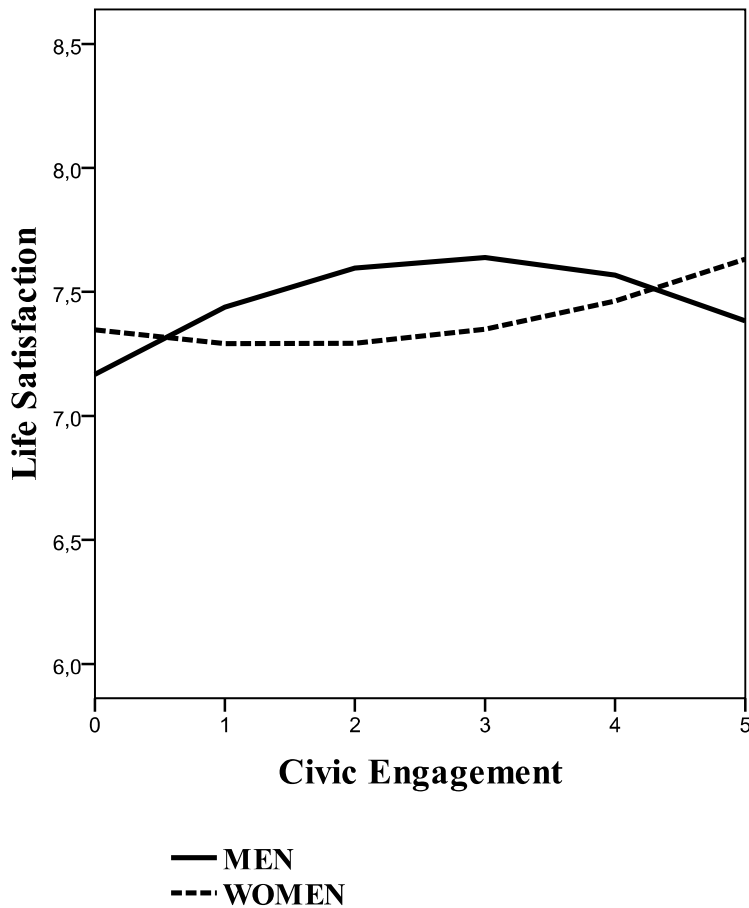
Models 3 and 4 in both tables 4 and 5 investigate gender differences in the relationship between SC and SWB by including interaction terms between gender and the three facets of SC. For the OLS regression, table 4 shows a significant interaction term for women’s socialising, thus indicating that the association between informal SC and SWB is stronger among women than men.<sup>41</sup> Figure 17 illustrates this finding using fitted

<sup>41</sup> Attentive readers will have noted that the increase in  $R^2$  when introducing interaction terms is small. This is, however, not to be interpreted as a weakness of the model. The purpose of introducing interaction terms is not to explain *more variance*, but to analyse whether significant differences by gender emerge.

values for a respondent with mean scores on all control and the other SC variables, based on OLS model 3. The plot shows that, *ceteris paribus*, a woman who does not socialise is less satisfied with her life than a man who does not socialise. But a woman who does socialise a lot (several times a week or every day) is more satisfied than a man who socialises that much.

Seen from a different perspective, meanwhile, men and women who socialise *once a week* (value 4 on the x-axis) do not differ in their level of life satisfaction. Gender does make a noteworthy difference to SWB, though, for those who socialise daily and even more so for those who do not socialise at all. Thus, the ‘happier gender’ seems to be women under the condition of heavy socialising, while it is men under the condition of no socialising. At the same time, the corresponding model in table 5 shows that there is no significant gender difference in the relationship between socialising and life satisfaction when ordered logit is used. This discrepancy demonstrates the importance of the method when analysing SWB data and demands a cautious interpretation of this particular OLS finding.

Moving on to model 4 which examines potential curvilinearity in the SC SWB relationship, there is a gender difference in the association between formal SC and SWB, as indicated by the respective significant interaction terms in tables 4 (OLS) and 5 (ordered logit). The corresponding fitted values in figure 18 based on the OLS coefficients demonstrate that for men, the association between formal SC and life satisfaction is positive at infrequent levels of voluntary work but turns negative at high levels. For women, meanwhile, the relationship is slightly u-shaped with the highest levels of SWB for those who volunteer *at least once a week*.



**Figure 18: Fitted values for civic engagement and life satisfaction by gender**

#### **4.6 Conclusions**

First of all, this analysis has shown support for a range of hypotheses regarding the socio-demographic control variables developed in section 2.1. Life satisfaction is significantly higher among respondents who are healthy, rich, of old age, married, not unemployed and religious, as outlined in hypotheses 2 and 4 to 7. Meanwhile, hypothesis 3 is not supported by these data and hypothesis 1 only regarding older respondents. Furthermore, a generally positive association was confirmed between trust, formal and informal SC and SWB, as assumed by hypotheses 8 to 10 in both the OLS and the ordered logit regression.

More importantly, though, new insights were discovered, since the relationship between SC and SWB does vary by gender to a certain extent. There are gender differences regarding the association between formal SC and SWB. Figure 18 shows that the marginal utility of formal SC increases at high levels for women while it decreases at



high levels for men. Thus, *ceteris paribus*, women with no and high levels of formal SC, and men with moderate levels of formal SC, report the highest life satisfaction.

Furthermore, the OLS analysis shows that men seem to be more indifferent than women when it comes to the importance of informal SC for their SWB. Among women, socialising matters more to life satisfaction, lending support to the notion that women are more at ease with social connectedness as a result of their relationship-oriented socialisation. This particular result, however, was not confirmed by the ordered logit regression, which indicates that the choice of method is important in SWB research, as it can make a difference to the outcome of a study in this context.

Finally, there is no support for hypothesis 11 regarding differences in the relationship between trust and SWB by gender in these data.

An open question remains whether the gender differences in the social context of well-being discussed here are at all affected by parental status, marital status, and age. Therefore, chapter 8 will take a closer look at subgroups by gender combined with such other factors.

## 5. Differences in the relationship between social capital and subjective well-being between age groups

### 5.1 Introduction

#### 5.1.1. Why is there a need to look at these subgroups?

Figures 19 to 21 highlight an interesting paradox. As reported earlier, SC and SWB are usually positively related. However, the association between age and SWB is normally u-shaped (Blanchflower & Oswald, 2007; Clark & Oswald, 2006) while levels of civic engagement are invertedly u-shaped (Putnam, 2000). These findings seem puzzling to a certain extent, since the phase of life in which civic participation is highest therefore also seems to be the most miserable one (see also Veenhoven, 2008). Could it be that the kind of participation during these years simply is of a lower quality in terms of its returns in SWB? Is it a less discretionary, more obligation-related kind of SC that is less advantageous for the individual's life satisfaction level? Are people in the middle age groups stressed from their busy job and family life, resulting in a greater likelihood of suffering from role strain in their social lives? Or do they simply not care about SC and hence it does not matter for their well-being? The diminished SWB for middle age people in the face of growing engagement in public life in fact leads to an assumption of diminished returns from SC in terms of SWB for this particular age group.

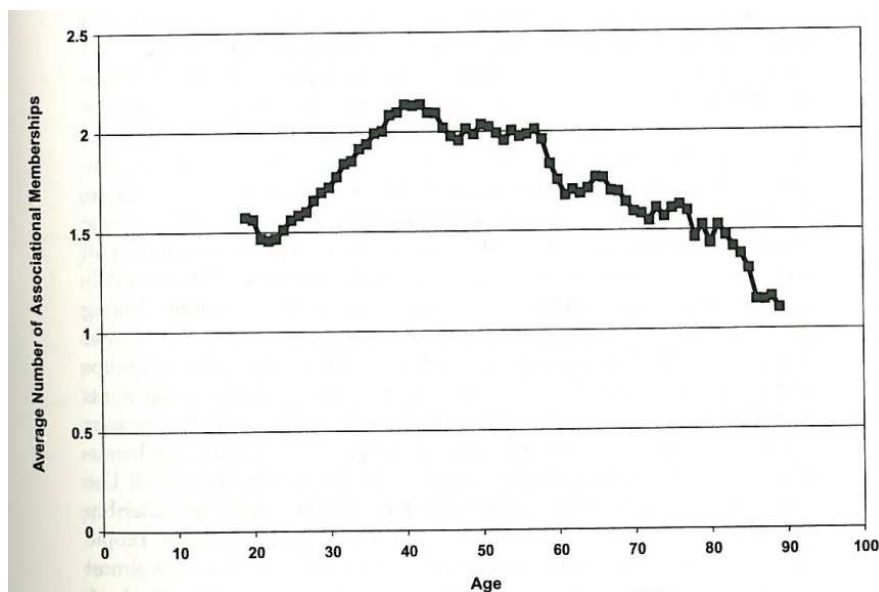


Figure 19: Membership in associations over the life cycle. (Source: Putnam, 2000: 249).

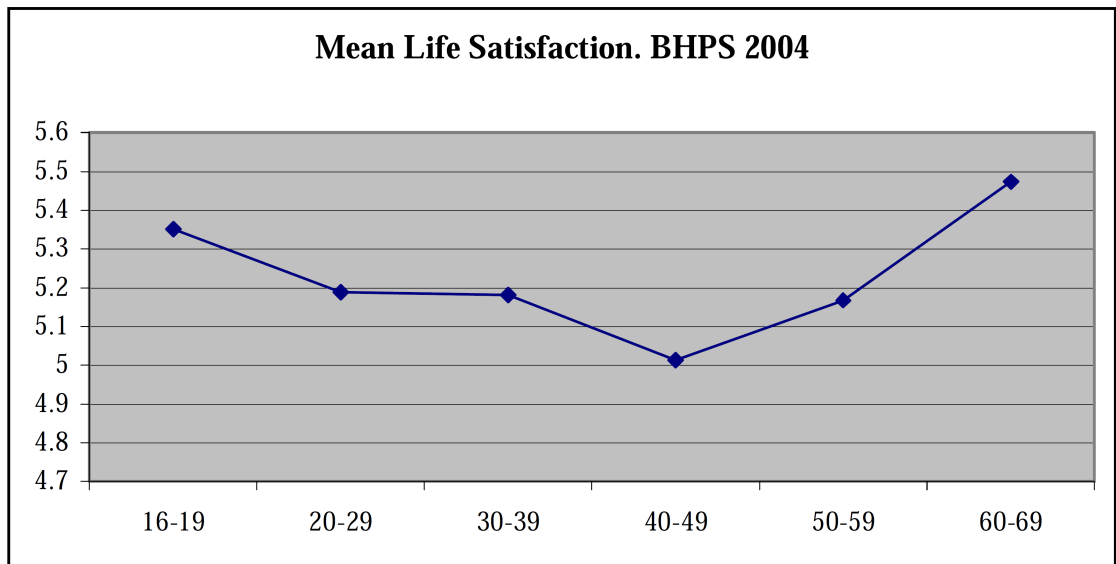


Figure 20: SWB over the life cycle. (Source: Clark & Oswald, 2006: 9).

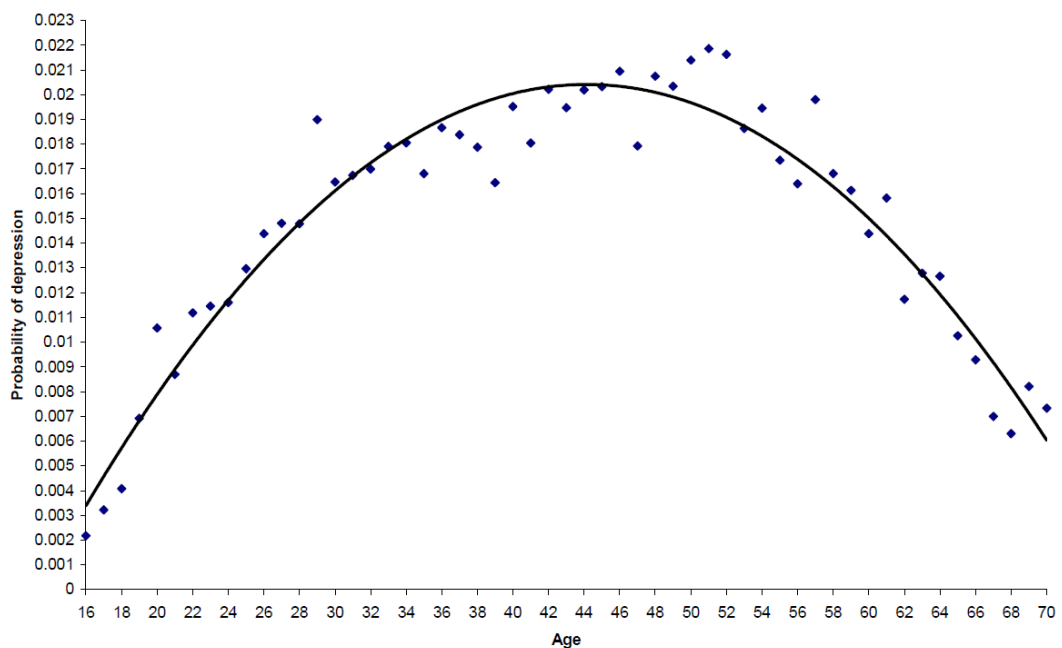


Figure 21: Depression probability over the life cycle. (Source: Blanchflower & Oswald, 2007: 33).

Furthermore, in a review of the SWB literature, Dolan et al. (2006: 53) have remarked that regarding the effects from community participation on SWB, it will be crucial to determine “when in the life cycle these effects are most likely to occur”. The following chapter ought to explore this question with regard to the varying relationship between SC and SWB by age.

### **5.1.2. *What are the subgroups' usual levels of subjective well-being?***

A range of studies have shown that life satisfaction is higher among young people, as well as among older people. *Ceteris paribus*, the middle age group tends to report lower levels of SWB (see e.g. Blanchflower & Oswald, 2004a, 2008; Clark & Oswald, 2006; Ferrer-i-Carbonell & Gowdy, 2007; Hayo & Seifert, 2003; Inglehart & Rabier, 1986; Michalos et al., 2001).

### **5.1.3. *How much social capital do the subgroups usually have?***

There are differing views of how the quantity of social ties develops over the life course. Some argue that they decrease as people grow older due to widowhood, retirement and children leaving their parental home (Krause & Wulff, 2005). More precisely, as people reach old age they were reported to have only half as many social connections compared to younger people (Lang & Carstensen, 1994; Lang et al., 1998). Older people's participation in community life is often limited at this stage due to poor health (Li & Ferraro, 2006). Proponents of the notion of active ageing, however, insist that social ties may indeed increase in old age due to more free time for socialising or the arrival of grandchildren and an extension of the family. Older people have also often been reported to use their free time increasingly for volunteering (Dosman et al., 2006), and participation in associational life may be more important if alternative sources of SC have faded away in old age (Musick & Wilson, 2003).

Nonetheless, formal SC has often been reported to be at the highest level among the middle age group. A range of studies have found early on that those who are in the middle span of adult life have a higher chance of volunteering (Putnam, 2000; Sundeen, 1990; Van Willigen, 2000). It is usually assumed that growing work and family responsibilities lead to people in the middle age groups to take up more voluntary work. For instance, parents of school-aged children may engage in activities related to their children's sports club or school. Also, this is the time for most adults to take up increasing responsibility in their communities, e.g. by getting involved in political associations.

## **5.2 Theoretical arguments: Why would the association between social capital and subjective well-being differ between these subgroups?**

### **Life course perspective**

In order to pursue the research question of this chapter, a *life course perspective* shall be taken. This is both a concept and theoretical approach that views an individual's existence in terms of life stages (e.g. childhood, adulthood), status passages (e.g. from youth to adulthood, from professional to pensioner), and life events (e.g. marriage, retirement). Thus, the life course perspective considers age to be a social construction which allocates individuals into social statuses, such as student, worker, or pensioner, on the basis of age. What it means to get older is not just determined by a natural process of aging but is mainly shaped by social institutions. More precisely, the meaning of roles and activities change across life stages. This perspective is therefore closely linked to role-identity theory and provides a framework for identifying the mechanisms that connect lives with social structures, since it views one's life as an "age-graded sequence of events and social roles that is embedded in social structures" (Elder, 2007: 1; Elder et al., 2004).

### **Middle age: Social capital is simply an outcome of other roles and less beneficial**

According to the life course perspective, the roles which people occupy change as they get older. Hence, the role context changes, too. As the personal circumstances of the adults (e.g. marital status, family size, employment status) change over the life cycle, so does the form of their social environment and its importance to their well-being (Moen et al., 1992; Morrow-Howell et al., 2003). Very young and old people, for instance, are less likely than people in middle age to be involved in employment, child rearing or care for an elder parent (Henz, 2004). As a consequence, the latter "occupy more extensive social roles" (Li & Ferraro, 2006: 511). In fact, their SC may be a mere outcome of role expectations and social obligations as a parent or work colleague (Krause & Wulff, 2005; Sundeen, 1990; Van Willigen, 2000; Wilson & Musick, 1997). Here, the "paradox is that 'voluntary' association activity may not be purely voluntary" after all (Li & Ferraro, 2006: 500).

SC may be more normative and come with a degree of obligation during middle age (Cress et al., 1997) resulting in the fact that this particular group faces the downsides of SC as described by Portes & Landolt (1996) more intensely than young and old people. While having school-aged children may lead to higher levels of SC for parents (Offer & Barbara, 2007), getting socially connected for your child's sake may entail a series of obligations and "place important demands on their parents" (Li & Ferraro, 2006: 500). Social participation may sometimes be a necessity for people in the middle age group to maintain work contacts or to facilitate their children's social life, while in old age it may rather be a welcomed alternative to spending time at home (Lee et al., 2008; Van Willigen, 2000). Consequently, SC may be less beneficial to SWB during middle age compared to young and old age.

People in the middle age period have a higher chance of being busy with their job, family, and a range of other commitments. In more economic terms, the costs of socialising and participation in associations will be higher for the middle age group who are more likely to have to divide their time between their varied obligations. This will also have an impact on the perceived benefits from SC. The larger degree of social integration for people in the middle age group furthermore means that the marginal utility of SC would be smaller for them.

Also, people in the middle age group were shown to be motivated to accumulate SC rather due to extrinsic factors, such as material rewards for themselves or their families, or with the aim of gaining skills that can be beneficial in the labour market (Fischer & Schaffer, 1993). They are more likely to accumulate SC for extrinsic causes that do not promote health or well-being as much as intrinsic reasons do (Meier & Stutzer, 2008; Omoto et al., 2000).

### **Young and old age: more discretionary social capital**

For the young (below 30) or old (above 65), SC may have a more discretionary nature (Chambre, 1987; Herzog & House, 1991). This means more freedom regarding who to spend time socialising with and which association to volunteer in, resulting in higher beneficial returns from SC. While young and old people have greater freedom of choice regarding their socialising and civic engagement activities and are thus "more in control of their 'acts of benevolence'", people in the middle age group might "see volunteer

work as simply unpaid labor tantamount to a social obligation” (Musick & Wilson, 2003: 268). Finally, the type of activity and its related SWB outcomes are also likely to vary across age groups. Older people, for instance, have been shown to accumulate formal SC often in church-related groups which is usually associated with large benefits in terms of SWB (Lim & Putnam, 2010; Musick & Wilson, 2003).

With particular regard to the old age group, some researchers claim that in later life people strive for social ties that are more emotionally meaningful, and disengage from more peripheral social relationships (Carstensen, 1992; Krause & Wulff, 2005). This view is elaborated in socio-emotional selectivity theory (SST) (Charles & Carstensen, 2009). According to this approach, people who reach the latter decades of their lives pay more attention to the fact that their time on earth is limited. As a result, they reprioritise goals and shift the balance to activities that are fulfilling to them. This usually includes a switch from setting and reaching personal goals to increasingly providing help for others (*ibid.*). From this perspective, social activities may become more selective in old age and increasingly rewarding, with higher beneficial returns in terms of SWB. Thus, SC is likely to be of a different kind in old age, one that is more strongly related with positive SWB. Furthermore, common sense and anecdotal evidence suggests that more mature people value the simple things in life more, such as spending time with friends. This idea, in combination with lowered aspirations in old age, may result in greater benefits from SC in older age.

Moreover, being productive, having a purpose in life and doing “something useful” is an important part of social approval, one’s identity, and is a significant source of self-esteem in our society. Many people experience these feelings of recognition when they have a job or raise children. But when people reach retirement they can face a loss of purpose. Civic engagement and socialising, for instance, can be a substitute for the loss of paid work and its related non-pecuniary benefits and become more important sources of SWB as a result (Fischer et al., 1991; Musick & Wilson, 2003; Okun, 1994). Exiting the work or active parent role may pose a challenge to many older adults. SC can provide meaningful social roles that act as a way to ensure a feeling of fulfilment and usefulness for this group, as proposed by activity theory (Chambre, 1987; Herzog & House, 1991; Musick et al., 1999; Van Willigen, 2000). Regarding volunteering, Fischer & Schaffer (1993: 9-10) have chosen the term “inoculation” for this view.

According to them, “volunteer work can inoculate, or protect, the older person from the hazards of retirement, physical decline and inactivity”.

So especially among old people, social support can be vital in maintaining mental health. Studies have shown that social isolation can dramatically increase the chances of depression among the elderly (Oxman et al., 1992). Likewise, SC was shown in longitudinal studies that controlled for baseline cognitive ability to prevent or at least ease the decline of cognitive function in elder people significantly (Kawachi & Berkman, 2001).

In sum, the nature and quality of SC change across the life course. The context in which the accumulation of SC occurs is crucial for its relationship with SWB. Because the role contexts for SC are different across age groups and the meaning of SC changes over the life-cycle, the association between SC and SWB is also likely to vary across age groups.

### **Role enhancement for young and old, role strain for middle aged**

One can also think of the varying benefits from SC to SWB across the life course in terms of role enhancement and role strain. Chapter 2.3.1 has described how SC may enhance well-being through *role enhancement*. Multiple social roles, e.g. through volunteering, can be a source of meaning in life and protect individuals from social isolation (Li & Ferraro, 2006; Thoits, 1985). Benefits from role enhancement include role-privileges, overall status security, resources for status enhancement, and enrichment of the personality (Sieber, 1974). Among young people, the benefits of multiple roles through SC may also be greater because it helps them to develop a personality.

At the same time, multiple roles may lead to problems. *Role strain* occurs if the demands of the multiple roles are conflicting, if one’s assessment concerning one’s performance in roles deviates from the assessment of others, or if an individual has accepted roles that are beyond his or her capacity. For instance, a woman who is all at once a full-time employee, a mother, and a daughter that cares for her sick parents may be under enormous pressure to fulfil those varied roles (Evandrou et al., 2002; Hindin, 2007). The problems described here lead to the role-taker having difficulties in meeting



the normative expectations of the roles, which is associated with inner conflict and can be assumed to decrease SWB.

Up to a certain degree, the benefits of multiple roles (role enhancement) tend to outweigh the stress that comes with occupying several roles (role strain) resulting in a “net gratification” (Sieber, 1974: 567). It is likely that the point of net gratification (i.e. role enhancement minus role-strain) depends largely on the role context, i.e. the setting and content of the roles (Moen et al., 1992). In other words, individuals who are more integrated into society through their family and employment may benefit less from additional SC than, for example, those who lack a job and close family ties (Musick et al., 1999). For the latter group, the point at which role enhancement turns into role strain through additional SC is likely to be later, compared to the first group. As visualised in figure 22, the relationship between SC on SWB will thus be different.

In brief, young and old people are likely to have a delayed point at which role enhancement turns into role strain, due to relatively fewer other social obligations on average compared to the middle age group. Since people in the middle life years are likely to already have a range of demanding roles in the work and family sphere, an increase in SC through additional roles as volunteer or because of heavy socialising leads them to experience role strain earlier than old and young people.

In fact, “an area of growing empirical research considers whether the benefits of multiple roles outweigh the stress caused by them” (Hindin, 2007: 1). This study can be added to such an endeavour in a sense that it examines how this relationship between benefit and stress varies across subgroups of society (here: across age groups).

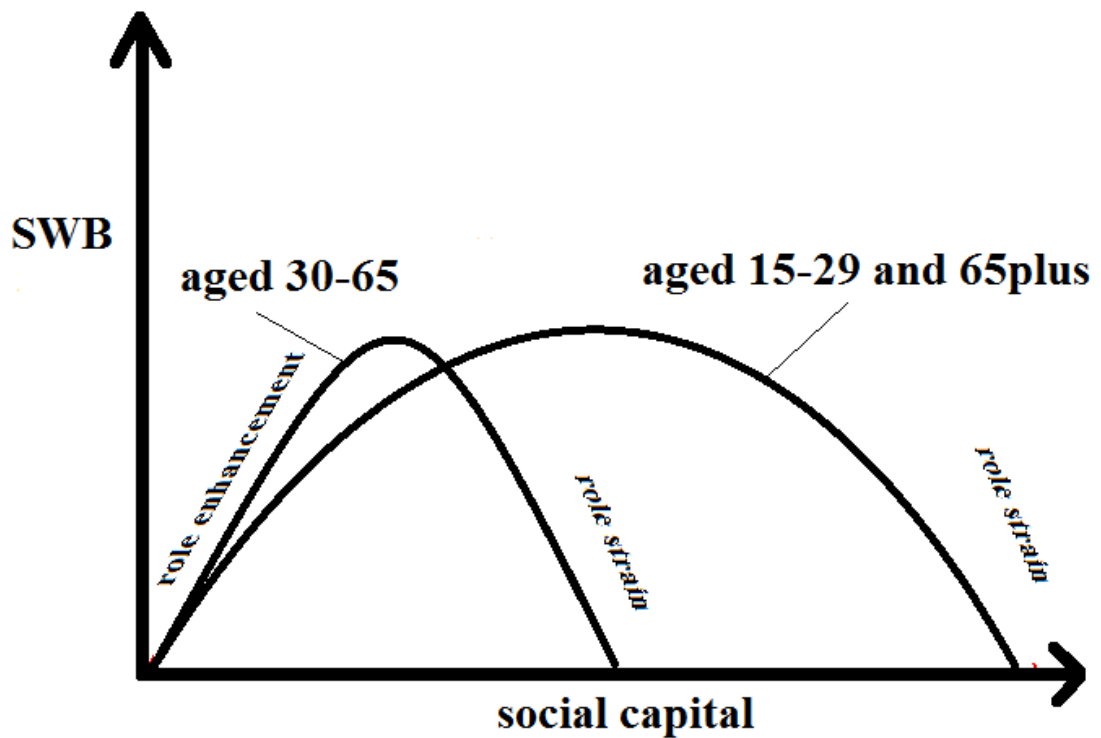


Figure 22: Simplified theoretical model of role strain and role enhancement in relation to social capital and subjective well-being by age group.

### Period- or cohort-effects

Similarly, an argument of differences in the social context of well-being between age groups can be made on the basis of socialisation theory. According to this view, the environment in which one grows up has a lasting effect on a person's values and attitude, such as the importance of social factors in relation to well-being. For example, cohorts that grew up in more materialistic (Inglehart, 1990) decades may differ in the value they attach to SC compared to those whose formative years fall in a post-materialistic era. The same is true for so-called period effects, i.e. events that may have affected some age groups but not others, most notably the drive for race, gender, and sexual orientation equality in the 1960s and early 1970s.

### 5.3 What have previous studies found?

Musick & Wilson (2003: 261) criticised that “rarely are the effects of volunteering on the psychological well-being of younger and older populations compared.” Indeed, the few studies which do examine populations by age in this regard most often restrict the comparison to two age groups, focus on volunteering as only one facet of SC, and study

the effects on health or mental illness rather than life satisfaction. Hence, this analysis will make a valuable, original contribution to the state of the knowledge.

### **Studies on old people only**

Some studies have, instead of comparing age groups, focussed exclusively on old adults in this regard. For instance, Lum & Lightfoot (2005) use longitudinal data from the 1993 and 2000 panels of the Asset and Health Dynamics Among the Oldest Old Study (AHEAD) to show how volunteering slows the decline in self-reported health and the increase in depression levels among the elderly. A positive relationship between volunteering and physical and psychological well-being of older people was reported by a range of papers (see Van Willigen, 2000: 308 for an overview). For instance, Harlow & Cantor (1996) found that older adults' participation in community service and other social activities correlates with higher life satisfaction. Examining social activities more generally by analysing data from the English Longitudinal Study of Ageing (ELSA), McMunn et al. (2009) found that among people of state pension age or older, those who took part in social activities had a higher well-being (life satisfaction and depression). Likewise, the frequency of contact with friends was also positively associated with SWB among the elderly in a study by Pinqart & Sorenson (2000). Meanwhile, Windsor et al. (2008) studied people aged 64 to 68 and reported an invertedly u-shaped relationship between volunteering and psychological well-being for this group.

### **SC and health by age**

Other studies have investigated how the effect of SC on *health* varies by age, such as Lee et al. (2008). Their study based on survey data of 59,000 Koreans examined if the association between self-rated health and social participation differs between men and women, and among age groups. The authors report that although the level of social participation decreases with growing age, the benefits as measured by health status actually increase with age in this analysis. In fact, the relationship of SC with health was strongest among women above the age of 65. In this particular group, those who “participated in more than two activities had more than twice the odds of self-rated good health of those who did not participate in any activities” (ibid.: 1042). However, their method of comparing the coefficients of the different regression analyses conducted for age groups and gender sub-samples separately instead of using interaction effects is not valid for their conclusions. This approach was criticised by Jaccard & Turrisi (2003) in

their methodological contribution on interaction effects, with which this dissertation shall comply.

### **SC and mental illness by age**

Krause & Wulff (2005) report that church-based social ties matter more for older people than for younger people in terms of reduced depression symptomatology. While older and younger adults were equally likely to have a certain proportion of friends in church, having more friends at church was associated with fewer symptoms of depression only among older age groups (from 50 onwards). Similarly, Musick & Wilson (2003) analysed the effect of volunteering on depression for people aged under and above 65 separately based on data from three waves of the Americans' Changing Lives survey (1986, 1989, 1994). They report no association between volunteering and depression in the younger sub-sample. However, for people above the age of 65, volunteering had a negative effect on depression. Also, Li & Ferraro (2006) found life course variations in the relationship between volunteering and mental health. Volunteering was only beneficial to mental health in the older age group, not in the middle age group. Moreover, the authors report how volunteering had benefits for both physical and mental health in later life, but did not find such a benefit mechanism in the sample of middle aged adults.

### **SC and SWB by age**

Regarding self-esteem as an outcome of volunteering in a hospice, Omoto et al. (2000) report the self-esteem of the older volunteers to have risen over time, while the self-esteem of the younger volunteers decreased. Finally, in a study on the effects of volunteering on life satisfaction and perceived health in the USA, van Willigen (2000) investigates the age groups below and above 60 separately. Based on data from the Americans' Changing Lives 1986 and 1989 surveys, she ran separate regressions for a sample of respondents under 60 and a sample of those aged over 60, and then compared the unstandardized coefficients. It turned out that the number of volunteer hours was associated in a positive and linear manner with satisfaction among older adults, while the relationship was curvilinear for younger adults. The latter in fact experienced negative effects from their volunteer work after 2.7 hours per week. Thus, seniors benefited more from volunteering than those under the age of 60.

This study shall use such results as a starting point. However, besides studying a different country (the UK instead of the US), a range of refinements will be introduced. First of all, it will investigate four age groups instead of two, in order to reflect the stages of the life course more accurately (youth, early adulthood, later adulthood, retirement). Secondly, it will incorporate various facets of SC instead of only volunteering. Third, the method will be different, as interaction terms are used to make statements about slope heterogeneity across age groups instead of comparing the unstandardised coefficients of sub-samples.

## 5.4 Method

This chapter uses the same method as previous chapters, i.e. OLS and ordered logit regression and fitted values to illustrate the results. Interaction terms are again formed, in this case between age group dummies and the three SC variables. To reflect four different stages across the life course, the age groups were distinguished as follows: young (15-30 years), lower middle age (30-44 years), upper middle age (45-64) and old (above 65 years).<sup>42</sup>

## 5.5 Hypotheses

Based on the theoretical remarks the following hypotheses will be examined in this chapter.

- H<sub>14</sub>: The relationship between SC in terms of *trust* and SWB will vary by age (with a weaker relationship among the middle age groups).
- H<sub>15</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by age (with a weaker relationship among the middle age groups).
- H<sub>16</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by age (with a weaker relationship among the middle age groups).

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<sup>42</sup> Although the regression analyses in the empirical chapters usually control for three age groups (and although later chapters will go back to using three age groups), chapter 5 will distinguish two middle age groups, and thus four age groups in total. This procedure will allow for more precise results on the life course to emerge from the analysis.

## 5.6 Analysis and Results

Table 6 displays the descriptive statistics and thus shows the levels of SC and SWB across age groups. First of all, it is apparent that - not controlling for other factors - life satisfaction is highest in old age and lowest in upper mid age. Moreover, trust increases with age in a linear fashion. This could either be a cohort effect of old people having been socialised in a 'more trustworthy world', or a sign of the fact that - in line with SST - older people are more selective in choosing their social environment and thus have opted for a more trustworthy one.

**Table 6: Descriptive statistics, life satisfaction and social capital by age**

Mean (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
Young (15 - 29)	7.26 (1.65)	5.36*** (1.50)	1.02*** (1.31)	4.78*** (1.36)	514
Lower Mid age (30 - 44)	7.17 (2.03)	5.50 (1.47)	1.45* (1.45)	3.85*** (1.50)	569
Upper Mid age (45 - 64)	7.14 (1.99)	5.63 (1.70)	1.37 (1.50)	3.80*** (1.57)	803
Old (65 plus)	7.42* (2.01)	5.91*** (1.76)	1.34 (1.66)	4.13 (1.59)	474
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. When there are subgroups of more than two categories, the t-test reflects the distinction dummy variable (e.g. old) vs. rest of the sample.

Corroborating the results of earlier studies, civic engagement is highest in (lower) middle age according to these data; it is lowest among the young. In reverse, however, socialising is lowest in (upper) middle age and highest among the young. Thus, from a life course perspective there is an important switch in how people accumulate SC at the threshold between youth and middle age (around age 30) from informal to formal SC. As people reach this age they stop meeting friends informally to a certain extent and shift their social connections to formal voluntary associations. Chapter 6, and in particular chapter 8.3, will be able to illuminate whether this pattern of increased civic engagement and reduced socialising is due to the fact that people in the middle age

group are more likely to have young children (parenthood effect), or whether those fluctuations in formal and informal SC are the result of a genuine life cycle development (age effect). In sum, from a revealed preferences perspective, the (lower) middle age group should benefit most and young people should benefit least from civic engagement. Likewise, the (upper) middle age group should benefit least and young people should benefit most and from socialising.

Table 7 contains OLS estimates for the dependent variable life satisfaction, while table 8 is based on ordered logit estimation to serve as a further robustness test of the OLS results - just like in the other empirical chapters. Identically to chapter 4, model 1 in both tables examines the control variables and model 2 in addition displays the SC coefficients. The models differ from other empirical chapters only in so far as they are based on four age groups as explained above. The results show in this regard that there are no significant differences from the model with three age groups in chapter 4. *Ceteris paribus*, old age is significantly associated with higher life satisfaction than the reference category lower mid age. Likewise, controlling for 4 age groups does not alter the positive association between SC and SWB in model 2 in a substantial way.

Finally, model 3 examines age group differences in the association between SC and SWB by featuring interaction terms of age and SC. Two results become obvious from table 7. First, socialising is more strongly associated with SWB among young and old people compared to the reference category, i.e. people in the lower middle age group. Figure 23 illustrates that, *ceteris paribus*, young people who do not have any informal SC have the lowest life satisfaction. However, young people who socialise daily report a life satisfaction that is 1.72 points higher than that of their peers who do not socialise at all. Their SWB scores, at higher SC levels, also surpass the average life satisfaction of people in the middle age group. A similar result is found for old people. They report an average life satisfaction that is lower than that of the middle age group during lower levels of informal SC. During higher levels of informal SC, though, old people's average SWB is higher than that of the middle age group.

**Table 7: Unstandardised OLS estimates, correlates of life satisfaction; social capital by age**

	1	2	3 <sup>43</sup>
constant	5.280***	4.018***	4.653***
health	0.517***	0.431***	0.425***
income	0.164***	0.132**	0.126**
female	0.024	-0.002	-0.009
aged 15-29 ( <i>ref. 30-44</i> )	0.245	0.227	-0.726
aged 45-64	0.093	0.064	-0.691
aged 65+	0.635***	0.441**	-0.747
single ( <i>ref.: married</i> )	-0.349*	-0.409**	-0.409**
separated	-0.972**	-0.989**	-0.982**
divorced	-1.087***	-0.990***	-0.984***
widowed	-0.537**	-0.612**	-0.630**
unemployed	-0.705**	-0.809**	-0.813**
education in years	-0.006	-0.019	-0.018
parent	0.030	0.035	0.024
religiosity	0.063***	0.046**	0.044**
trust		0.204***	0.129*
civic engagement		0.068*	0.157**
informal socialising		0.161***	0.077
aged 15-29 x trust			0.026
aged 15-29 x civic eng.			-0.081
aged 15-29 x socialising			0.209*
aged 45-64 x trust			0.128
aged 45-64 x civic eng.			-0.149*
aged 45-64 x socialising			0.067
aged 65+ x trust			0.115
aged 65+ x civic eng.			-0.117
aged 65+ x socialising			0.175*
Observations	1768	1768	1768
R square	0.134	0.186	0.194
Adjusted R square	0.127	0.179	0.181

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

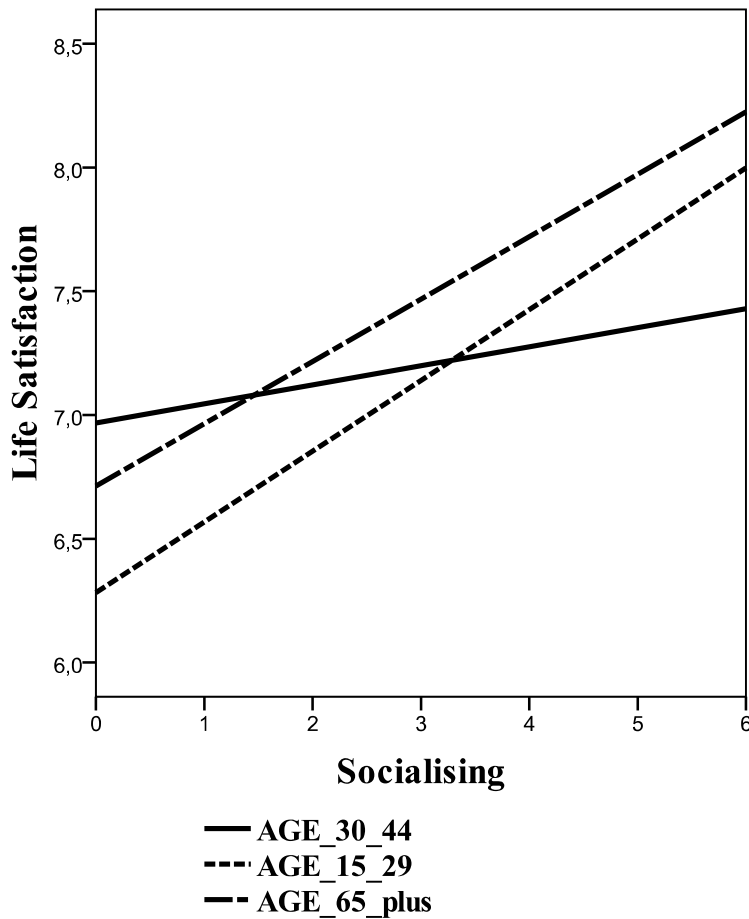
<sup>43</sup> Models with squared terms (not shown) in this or the following chapters did not yield any significant results and are therefore omitted.



**Table 8: Ordered logit, correlates of life satisfaction; social capital by age**

	1	2	3
Life Satisfaction = 0	-3.253***	-2.111***	-2.792***
Life Satisfaction = 1	-2.702***	-1.554***	-2.231***
Life Satisfaction = 2	-2.110***	-0.957**	-1.630***
Life Satisfaction = 3	-1.182***	-0.029	-0.700
Life Satisfaction = 4	-0.531	0.636*	-0.034
Life Satisfaction = 5	0.322	1.523***	0.857*
Life Satisfaction = 6	0.907**	2.124***	1.460***
Life Satisfaction = 7	1.803***	3.064***	2.406***
Life Satisfaction = 8	3.236***	4.545***	3.902***
Life Satisfaction = 9	4.423***	5.763***	5.128***
health	0.536***	0.457***	0.452***
income	0.130**	0.103*	0.098*
female	0.068	0.039	0.022
aged 15-29 ( <i>ref. 30-44</i> )	0.180	0.176	-0.771
aged 45-64	0.101	0.062	-0.724
aged 65+	0.693***	0.509***	-0.913
single ( <i>ref.: married</i> )	-0.247	-0.338*	-0.347*
separated	-0.747**	-0.888**	-0.899**
divorced	-0.982***	-0.914***	-0.912***
widowed	-0.456*	-0.563**	-0.575**
unemployed	-0.658**	-0.756**	-0.779**
education in years	-0.011	-0.026*	-0.024*
parent	0.043	0.027	0.017
religiosity	0.058***	0.044**	0.044**
trust		0.211***	0.122*
civic engagement		0.084**	0.197***
informal socialising		0.148***	0.067
aged 15-29 x trust			0.036
aged 15-29 x civic eng.			-0.082
aged 15-29 x socialising			0.199*
aged 45-64 x trust			0.148*
aged 45-64 x civic eng.			-0.214**
aged 45-64 x socialising			0.070
aged 65+ x trust			0.156*
aged 65+ x civic eng.			-0.125
aged 65+ x socialising			0.177*
Observations	1768	1768	1768

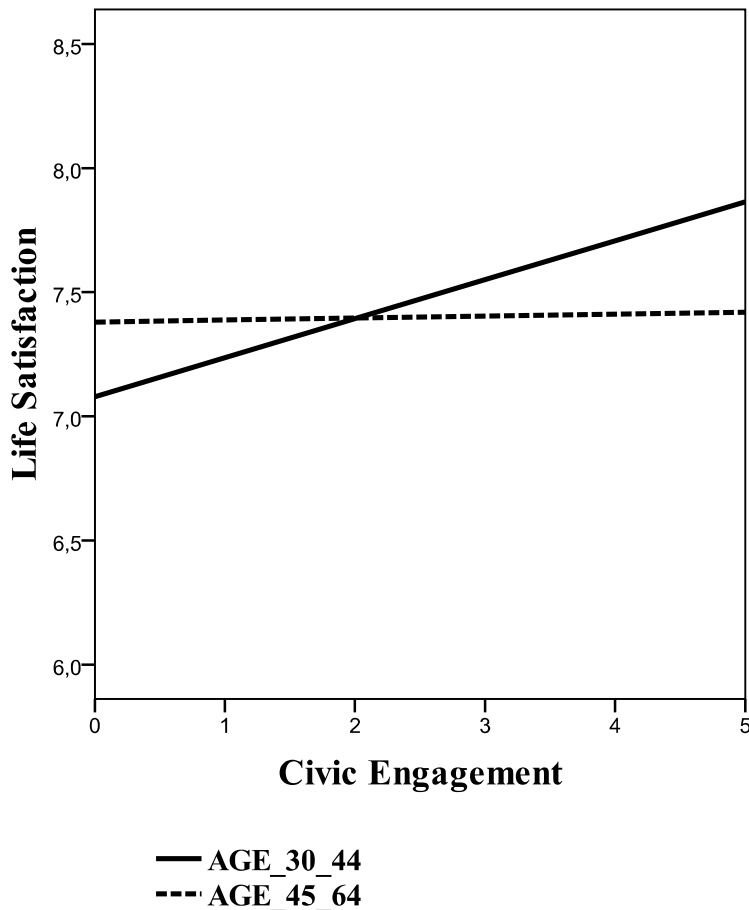
\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .



**Figure 23: Fitted values for socialising and life satisfaction by age**

All in all, socialising seems to make less of a difference to SWB among the middle age group, while it matters more to old and young people. At the same time, age makes the biggest difference to SWB at very high and very low levels of informal SC. No significant differences were found in this regard between the lower and upper mid age groups.

The second result to emerge from this model is that civic engagement and SWB are more strongly correlated for the lower middle age group than for the upper middle age group. In fact, for the latter, civic engagement does not seem to matter at all for life satisfaction, while there is quite a strong positive association for people aged between 30 and 44, as illustrated by figure 24.



**Figure 24: Fitted values for civic engagement and life satisfaction by age**

The ordered logit analysis confirms the results from the OLS regression mentioned above regarding the direction and significance of the coefficients. In addition, however, model 3 in table 8 shows that the association between trust and SWB is stronger for the upper middle age group and older people compared to the reference category, the lower middle age group. Finally, a model examining a potential non-linear association featuring squared terms for SC and its related interaction terms (not shown) did not yield significant results for both OLS and ordered logit. Hence, there are no curvilinear differences in the association across age groups.

## 5.7 Conclusions

The aim of this chapter was to examine the relationship between SC and SWB across age groups. This approach delivered fruitful results in several ways. First, the relationship between informal SC and SWB varies by age, lending support to hypothesis 16. Second, hypothesis 15 receives some empirical backing, as civic engagement is not positively associated with life satisfaction for the upper middle age group, while there is

quite a strong positive relationship for people aged between 30 and 44. Third, at least the ordered logit results support hypothesis 14, as they indicate that the relationship between trust and SWB is stronger for the upper middle age group and older people compared to the lower middle age group. However, this hypothesis was not supported by the OLS results.

It will be helpful to discuss these findings in some more detail. The relationship between informal SC and SWB is stronger for very young and old people, while it is weaker for the (lower)<sup>44</sup> middle age group. Applying a causal perspective, people in the middle years of adult life benefit less from socialising than very young and old people. Coming back to the theory, this result is in line with the idea that the young and old age groups have more freedom in deciding who to socialise with resulting in greater benefits. Their SC is more discretionary than that of people in the mid age group. Moreover, SST proposes that as people get older they choose to build such social ties that are more emotionally meaningful to them.

Furthermore, this finding fits the notion that people in the mid age group have “more extensive social roles” (Li & Ferraro, 2006: 511) and their informal SC may be a mere outcome of role expectations and social obligations as a parent or work colleague. People in the middle age groups have less freedom in choosing their informal SC, as many role obligations dictate how their free time is used. Put simply, spending free time with your work colleagues or your child’s friends’ parents (which is probably more common during the middle life years) may be less beneficial than seeing fellow students or fellow pensioners. However, this conclusion could only ultimately be verified with a survey that asks about who people socialise with - here one can only make probabilistic statements about who people from the different age groups are most likely to spend their time with.

In more economic terms and through a causal lens, the busyness of the (lower) middle life period seems to increase the costs of socialising and diminish its benefits. Those who are well-integrated in other roles during this stage of the life cycle (e.g. job, family) can also be assumed to have a lower marginal utility from meeting friends. Furthermore,

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<sup>44</sup> Strictly speaking, the statements about differences in the slope between SC and SWB are valid only for the reference category of lower middle age vs. old and young. However, there were no significant differences in slopes between lower and upper middle age groups in this regard. Hence, a certain similarity among the two middle age groups can be assumed.

the diminished benefits from informal SC among the (lower) mid age group may be an indication of role strain due to other roles. For the very young and old, socialising seems to provide a greater amount of role enhancement.

The fact that civic engagement does not seem to matter at all for life satisfaction for the upper middle age group, while there is quite a strong positive association for people aged between 30 and 44, indicates that role strain in this context really hits in upper middle age and diminishes any potential positive benefits from civic engagement. This result is somewhat in line with the revealed preferences approach. Table 6 shows that the upper middle age group, who do not benefit at all from civic engagement, have slightly lower levels than the lower middle age group. Thus, people do seem to cut down on their voluntary work at this stage in their lives following the diminished returns they gain from it.

The findings of the descriptive statistics, meanwhile, largely confirm what earlier studies have reported, in a sense that civic engagement is highest among the middle age groups. However, as this study distinguished four age groups rather than the usual two, more precise statements can be made. In particular, an interesting switch was noted from informal to formal SC at the passage from young to middle age. Also, young people's high levels of socialising were especially noteworthy, particularly since they were matched with greater benefits in terms of SWB, in line with the revealed preferences approach. Likewise, older respondents, who also socialise more than the middle age groups, have similarly great benefits from informal SC to young people. Thus, people who are very young or old socialise more probably because they also benefit more from it in terms of SWB than the middle age groups.

One could also argue from this cross-sectional analysis that the age differences yield a period- or cohort-effect. Regarding the results on informal social capital, for instance, it could be proposed that older people were socialised in less individualised times that put more emphasis on maintaining good social relations with friends, relatives and colleagues. On the other hand, as there was also a stronger effect for the young respondents, it seems more plausible to attribute the differences to life course effects and the changing role context. As long as no compelling argument can be made why those born between 1942 and 1977 (i.e. the middle age group) should uniquely stand out from the rest based on events that would have affected people's socialisation during that

period with a decisive effect on the relationship between SC and SWB, the life course approach appears more convincing to this author.

The remarks concerning causality from previous chapters also apply to this one. From a reverse causation perspective, these results would suggest that being satisfied with one's life is less of a pre-requisite for heavy socialising in middle age than it is in young or old age. However, effects in the other direction, from SC to SWB, remain the focus of this study, as outlined in detail earlier.

Coming back to the initial research question of when in the life cycle positive effects from SC are most likely to occur it can be concluded from these data that positive effects from civic engagement are more likely to occur in lower than in upper middle age. Moreover, the benefits from socialising arise most strongly in young and old age, while they are weaker in the (lower) middle span of adult life.

One purpose of this chapter was to address the paradox that civic engagement is usually higher during the middle life years when SWB is generally at its lowest – despite SC being positively related to SWB in general. In this context, it was hypothesised that the 'returns' from SC may be smaller for people in their middle life years. Indeed the analysis found that SWB is lower and formal SC is higher during the middle life years. Also, people in the upper middle age group did actually show a non-association between formal SC and SWB, which supports the hypothesis outlined earlier of smaller 'returns' from SC for this group. However, this explanation for the paradox does not fit for the *lower* middle age group who had the highest rates of formal SC and displayed a positive association, thus leaving room for further exploration of this phenomenon.

In order to take a closer look at how the social context of well-being varies across the life cycle, chapter 8 will include an examination of the relationship between SC and SWB by age and parental status, by age and gender, as well as by age and marital status. These distinctions will give a more precise idea of how far the variations across age groups revealed here are affected by parenthood, gender and marriage.

## **6. Differences in the relationship between social capital and subjective well-being by parental status**

### **6.1 Introduction**

#### ***6.1.1 Why is there a need to look at these subgroups?***

Having children can profoundly change one's life. This may be especially true for one's social environment and how one relates to it. The following chapter will therefore expand the life course perspective outlined in the preceding empirical chapter to examine whether, and how, the social context of well-being varies by parental status. Similar to the gendered analysis earlier, this approach will add significant value to the SWB literature regarding the still unclear question of how parenthood is associated with life satisfaction by introducing SC as a third variable in this regard.

#### ***6.1.2 What are the subgroups' usual levels of subjective well-being?***

The existing research evidence on the effect of parenthood on SWB is mixed (Dolan et al., 2006, 2008). Many studies report no effect of parental status on SWB (e.g. Bergman & Daukantaite, 2006). Haller & Hadler (2006) report a positive, significant association between having children and life satisfaction, but a non-significant association for happiness. Thus, the cognitive aspect of SWB seems to benefit from being a parent, although having children puts strains on the emotional life of those who raise them. In addition, a number of intervening factors have been investigated in the relationship between parenthood and SWB, such as marital status (Frey & Stutzer, 2002), income (Alesina et al., 2004), country of residence (Di Tella et al., 2003), old age, single living, low education (Dykstra & Hagestad, 2007), or gender, age, educational level, and marital status (Hansen et al., 2009). However, SC has never yet been factored into the equation to the best knowledge of this author. Thus, and crucially, the following empirical analysis ought to provide new insights into under what (SC) circumstances parental status is beneficial or detrimental for SWB.

#### ***6.1.3 How much social capital do the subgroups usually have?***

Although it is generally understood that changes in family roles, such as becoming a parent, may affect one's social relationships (Sundeen, 1990), not much research has

examined the particular question of how parenthood affects SC. It has been said, however, that parents with children in the household are reported to have higher rates of formal SC (Sundeen, 1990; Wilson & Musick, 1997). However, this is not the case among young parents, as reported by Oesterle et al. (2004). In their study, the authors reported that parents with pre-school children have lower volunteering rates than non-parents of that age. By contrast, a study by Offer & Schneider (2007) reported that parents often gain additional SC through their children. Through their children's networks, parents often connect with other people. It is not clear, however, to what degree such SC - that is not chosen directly by the parents but is established through their children - fosters parents' SWB (in comparison to fully discretionary SC). What does emerge apparently, though, is that parents of disabled or sick children tend to have lower rates of SC (Aldridge, 2008; Schultz et al., 2009; Seltzer et al., 2001).

## **6.2 Theoretical arguments: Why would the association between social capital and subjective well-being differ between these subgroups?**

### **Life course perspective and role-identity theory**

A similar approach to the life course perspective in chapter 5 is taken here, in a sense that major life events such as becoming a parent can dramatically change the roles one has, and the normative expectations one is met with. The analysis will in this context focus on parenthood and its potentially moderating effect on the association between SC and SWB.

If, according to the life course perspective, life is an age-graded sequence of events with consequences for one's circumstances and societal roles (Elder, 2007: 1), then parenthood can certainly be considered a fundamental event that shapes or at the least influences the nature of one's social connections. For parents, the accumulation of SC may be less discretionary but may be a mere outcome of other social roles. For example, parents may get involved in the local Parents and Teachers Association as a result of normative expectations rather than a desire to follow their interests. Likewise, they may find their own interests compromised by getting involved in associations related to their children's interests or socialise with their children's friends' parents rather than their



own friends<sup>45</sup> (Sundeen, 1990; Van Willigen, 2000; Wilson & Musick, 1997). This may result in differing empirical relationships between SC and SWB for parents vs. non-parents. Furthermore, it may be helpful to distinguish parents of younger children from parents of older children and childless people in a second step of the analysis, in order to get a precise idea of how the social context of well-being is affected by parenthood.

### 6.3 What have previous studies found?

The question of how the effects from SC on SWB may vary between parents and non-parents has largely been neglected by the literature. Kana'iaupuni et al. (2005) discovered that parents' social networks exert a positive impact on their *children's* health. Similarly, McNeal (1999) reports that parental involvement in schools has a positive effect on their *children's* educational outcomes. However, a focus on SWB, let alone a comparison between the effects of SC on the parents themselves versus non-parents, is still missing.

### 6.4 Method

This chapter uses the same method as previous chapters, i.e. OLS and ordered logit regression and fitted values with all other variables than the ones displayed fixed at the mean to illustrate the results. Interaction terms are again formed, in this case between parental status dummies and the three SC variables. A first analysis is concerned with the distinction between parents and non-parents in general, while in a second step, parents whose (first) child is under 16 are distinguished from parents of older children and non-parents.

### 6.5 Hypotheses

- H<sub>17</sub>: The relationship between SC in terms of *trust* and SWB will vary between parents and childless people.
- H<sub>18</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary between parents and childless people.
- H<sub>19</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary between parents and childless people.

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<sup>45</sup> Of course, one's children's friends' parents may be identical to one's own friends but this is less likely compared to a situation (applicable to childless people) where no such constraints are in place.

- H<sub>20</sub>: The relationship between SC in terms of *trust* and SWB will vary between parents of under 16s, parents of 16s and older, and childless people.
- H<sub>21</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary between parents of under 16s, parents of 16s and older, and childless people.
- H<sub>22</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary between parents of under 16s, parents of 16s and older, and childless people.

## 6.6 Analysis and results

**Table 9: Descriptive statistics, life satisfaction and social capital by parental status**

Means (Std. Dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
Parents	7.23 (2.01)	5.64 (1.65)	1.38** (1.53)	3.91*** (1.58)	1643
Childless	7.21 (1.79)	5.52 (1.55)	1.16** (1.40)	4.48*** (1.44)	750
Parents of under 16s	7.19	5.56	1.47**	3.79***	518
Parents of 16s and older	7.26	5.68*	1.35	3.96***	1150
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , p \*\*  $\leq 0.01$ , p \*  $\leq 0.05$ .

N.B. When there are subgroups of more than two categories, the t-test reflects the distinction dummy variable (e.g. parents of under 16s) vs. rest of the sample.

Without controlling for other factors, the life satisfaction levels of parents and non-parents are rather similar. Further distinguishing parents of younger children vs. parents of older children, however, reveals that the former have lower and the latter have higher life satisfaction levels compared to childless respondents. Comparing parents' and non-parents' SC, it becomes clear that socialising rates are lower for the former, while they have higher rates of civic engagement than childless people. The switch from informal to formal SC between non-parents and parents is similar to the one found between the young and middle age group earlier. Thus, while non-parents more often meet people

informally, parents are more likely to get involved in voluntary organisations or help with activities in their local area. These formal SC activities may well be related to their children and thus be an outcome of their parental role, as the aforementioned discrepancy between formal and informal SC is even more pronounced among parents of younger children. In fact, the latter group reports the highest levels of civic engagement and the lowest levels of socialising overall. Chapter 8.3 will examine in how far the SC patterns found here are an age effect or genuinely related to having children. In terms of the revealed preferences we would assume parents (especially of younger children) to gain more satisfaction from civic engagement, while childless people seem to enjoy socialising more. Finally, parents (especially those of older children) have more trust than childless people.

Table 10 contains OLS estimates for the dependent variable life satisfaction, while table 11 is based on ordered logit estimation to serve as a further robustness test of the OLS results - in an identical manner to the other empirical chapters. Model 1 in both tables considers differences in the SC SWB relationship between parents and non-parents, while model 2 additionally distinguishes parents of younger children (under 16s) vs. parents of older children.

Model 1 reveals that civic engagement is more strongly associated with SWB among childless people compared to parents. Figure 25 illustrates how childless people who never participate in community activities are, *ceteris paribus*, less satisfied with their lives than parents who do so. However, onwards from civic engagement of *at least once every six months* (SC values 2-5), the reverse is true. Overall, among parents there is less of a 'satisfaction discrepancy' between those who volunteer a lot and those who do not volunteer at all, i.e. the graph is flatter than for nonparents. Also, being a parent shows a detrimental effect on SWB at high levels of civic engagement, while for those who do not have any formal SC, being a parent is beneficial to SWB. Moreover, there are no significant differences in the association between either trust or socialising and SWB between parents and non-parents.

**Table 10: Unstandardised OLS estimates, correlates of life satisfaction; social capital by parental status**

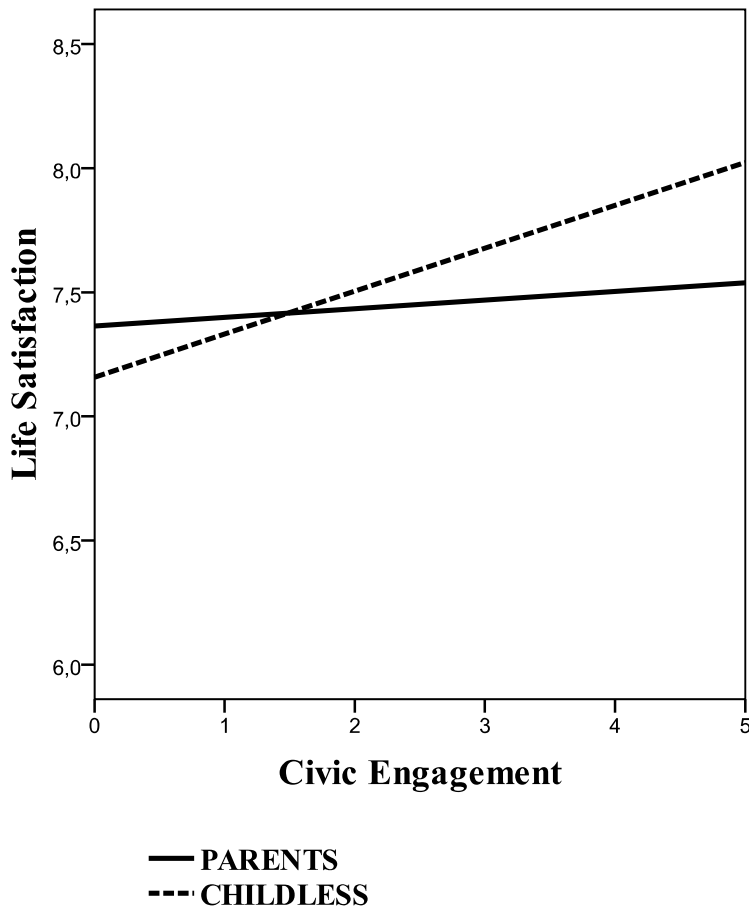
	1	2
constant	3.994***	4.885***
health	0.429***	0.432***
income	0.134**	0.128**
female	-0.016	-0.015
aged 15-29 ( <i>ref.: 30-64</i> )	0.222	0.233
aged 65+	0.401**	0.360**
single ( <i>ref.: married</i> )	-0.416**	-0.405**
separated	-1.008**	-0.999**
divorced	-0.984***	-0.975***
widowed	-0.608**	-0.628**
unemployed	-0.796**	-0.815**
education in years	-0.018	-0.018
parent	0.100	
parent of 16s and older ( <i>ref.: parent of under 16s</i> )		-1.109*
childless		-0.905
religiosity	0.045**	0.045**
trust	0.213***	0.047
civic engagement	0.171**	0.116
informal socialising	0.133*	0.149**
parent x trust	-0.008	
parent x civic eng.	-0.136*	
parent x socialising	0.039	
parent of over 16 x trust		0.215**
parent of over 16 x civic eng.		-0.118
parent of over 16 x socialising		0.039
childless x trust		0.167*
childless x civic eng.		0.056
childless x socialising		-0.018
Observations	1768	1768
R square	0.188	0.194
Adjusted R square	0.179	0.183

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

**Table 11: Ordered logit, correlates of life satisfaction; social capital by parental status**

	1	2
Life Satisfaction = 0	-2.107***	-3.264***
Life Satisfaction = 1	-1.550**	-2.707***
Life Satisfaction = 2	-0.952*	-2.106***
Life Satisfaction = 3	-0.022	-1.172**
Life Satisfaction = 4	0.645	-0.503
Life Satisfaction = 5	1.532***	0.389
Life Satisfaction = 6	2.133***	0.993*
Life Satisfaction = 7	3.073***	1.939***
Life Satisfaction = 8	4.556***	3.431***
Life Satisfaction = 9	5.778***	4.659***
health	0.454***	0.461***
income	0.103*	0.098*
female	0.026	0.033
aged 15-29 ( <i>ref.30-64</i> )	0.171	0.172
aged 65+	0.466***	0.414**
single ( <i>ref. married</i> )	-0.347*	-0.334*
separated	-0.919**	-0.915**
divorced	-0.915***	-0.912***
widowed	-0.558**	-0.591**
unemployed	-0.748**	-0.749**
education in years	-0.025*	-0.024*
parent	0.075	
parent of over 16 ( <i>ref. parent of under 16</i> )		-1.502**
childless		-1.177*
religiosity	0.043**	0.044**
trust	0.208***	0.010
civic engagement	0.195**	0.128*
informal socialising	0.130*	0.123*
parent x trust	0.008	
parent x civic eng.	-0.148*	
parent x socialising	0.025	
parent of over 16 x trust		0.280***
parent over 16 x civic eng.		-0.113
parent over 16 x socialising		0.053
childless x trust		0.201*
childless x civic eng.		0.069
childless x socialising		0.005
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .



**Figure 25: Fitted values for civic engagement and life satisfaction by parental status**

If parents are further distinguished into parents of younger children vs. of older children, it emerges that for the first group there is almost no positive relationship between trust and SWB - in contrast to the latter group and childless people. Thus, trusting or not trusting others does not matter as much for parents' life satisfaction if the children are under 16 years old. Ceteris paribus, parents of an older child or a childless people who do not trust others around them are on average approx. 2.5 points less satisfied with their lives than their high-trusting peers. Meanwhile, this difference is less than a mere 0.5 points on the life satisfaction scale for parents of young children.

Finally, the results of the ordered logit regression in table 11 confirm the OLS findings in terms of direction and significance of the coefficients.

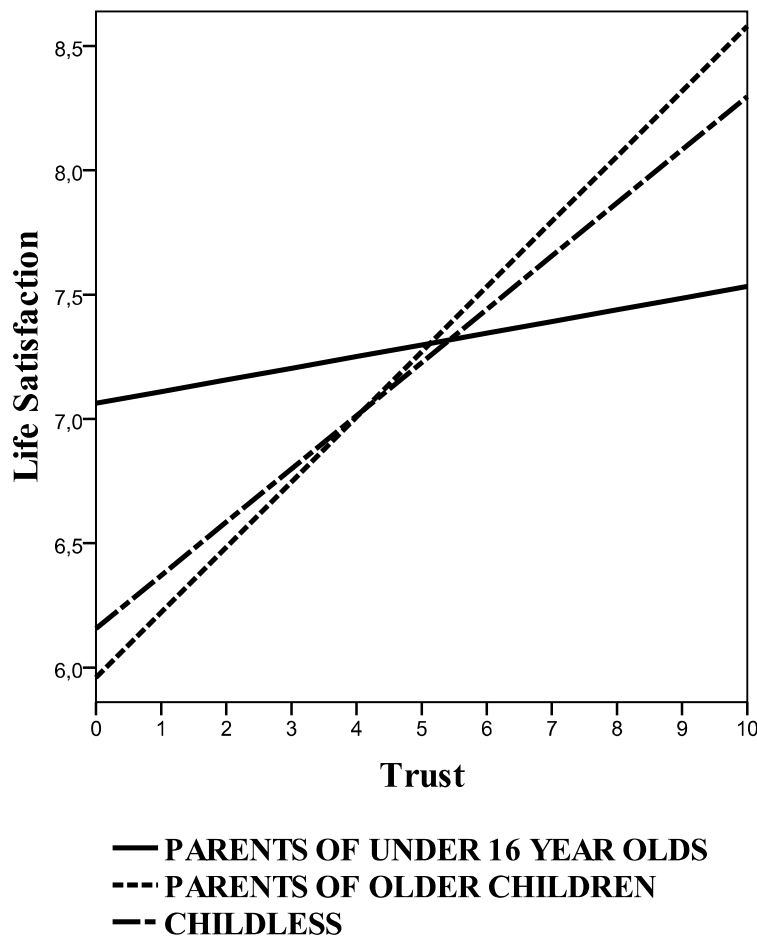


Figure 26: Fitted values for trust and life satisfaction by parental status

## 6.7 Conclusions

Extending the life course perspective outlined in chapter 5, this chapter examined differences in the relationship between SC and SWB by parental status. A first analysis revealed that formal SC has a stronger positive effect on non-parents' SWB. Thus, hypothesis 18 receives some support. Although parents have higher rates of civic engagement than non-parents, parents seem to benefit less from their formal SC, if one interprets these findings in a causal manner. It can consequently be assumed that parents' participation in community life is less discretionary and may be a mere outcome of their social role as a parent. As discussed earlier, their participation may be linked to their children's activities rather than their own. Likewise, a certain role strain could be at play here. Where the civic engagement does revolve around the parent's interests it may come at the price of a guilty conscience from potentially neglecting family responsibilities (Osborne et al., 2009). Finally, given parents' high levels of voluntary work, this result contradicts the revealed preferences approach.

When parents were split into those of younger children vs. those of older children in a second analytical step, however, it emerged that there are no longer any differences regarding civic engagement and SWB, in contrast to what hypothesis 21 would have predicted. In particular, the relationship between SC and SWB was not significantly weaker for parents of younger children, as one may have assumed based on the theoretical reasoning.

While there were no differences regarding trust and SWB between parents in general vs. non-parents, as hypothesis 17 would have predicted, the analysis featuring a further division of parents into two groups did yield some interesting results in this regard. The finding that generalised trust does matter much less to the SWB of young children's parents is in line with hypothesis 20. There was almost no difference in terms of life satisfaction, *ceteris paribus*, between a parent of a young child who thinks that we live in a trustworthy society and one who thinks that other members of society cannot be trusted. This particular result, however, seems somewhat counter-intuitive. Actually, one might have assumed that while bringing up their children, this group is particularly concerned about what happens in society around them and in how far they feel that they live in a trustworthy environment. However, an explanation of this paradoxical finding could be that young children draw their parents' centre of attention (and the sources of their joy and worry) away from society and make them focus on the core family. Thus, it may matter more to those parents what happens inside their own home, and they may become somewhat more indifferent to what goes on around it.

Although socialising levels were higher among non-parents, the analysis has shown that the association with SWB is not stronger for them. In a sense, they therefore do not seem to benefit more from their elevated informal SC in terms of life satisfaction. Likewise, the fact that parents reduce their socialising overall does not mean that it is significantly less important for SWB compared to non-parents. Thus, hypotheses 19 and 22 receive no support from these data.

The results revealed here call once more for a more nuanced analysis, which will be provided in later chapters. In particular, the investigation of variations in the social context of well-being by parental status ought to be further modified by gender, age and marital status.



## **7. Differences in the relationship between social capital and subjective well-being by marital status**

### **7.1 Introduction**

#### *7.1.1 Why is there a need to look at these subgroups?*

Getting married is an important step in life with repercussions for a range of areas<sup>46</sup>. On many levels, married people therefore differ from non-married people. Indeed, the social context of one's life may be the life domain that is most strongly affected by whether one has a spouse or not. Therefore, the following chapter will look at whether married people have systematically different levels of SC and SWB compared to non-married people, but also at how far the relationship between those two concepts varies between those groups.

The question could be raised at this stage whether being married is not SC in itself? Chapter 2 had outlined and justified why close family relationships are not considered SC in this thesis. But answering that question is not a decisive or even a necessary precondition in order to conduct the analysis featured in this chapter for the following reasons. If the answer to it was 'no, being married is not SC in itself', marital status would be treated here as an exogenous criterion by which respondents are divided into groups under the assumption of slope heterogeneity in the association between SC and SWB. Meanwhile, if the answer to the question was 'yes, being married is a kind of SC in itself', then marital status would still be a valid criterion by which subgroups can be divided. If the latter approach was taken, it would perhaps be advisable to introduce a distinction between "external SC" (socialising, membership) and "internal SC" (family, partner) to the literature in the future, as indicated in chapter 2. We can then speak of the married as those who have high "internal SC". The analysis in this chapter would in that case aim to find out in how far the association between external SC (i.e. volunteering and socialising) and SWB differs between those who have a lot of internal

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<sup>46</sup> The distinction made here is by marital status and not by cohabitation. This is due to the fact that the existing SWB literature, which this thesis has as a basis and which it aims to refine, has, likewise, focused on marriage rather than cohabitation. From a substantive point of view, it could furthermore be argued that there is a significant difference in the quality of a relationship when two people are united in marriage rather than by occupying the same house (although this is not the topic of this dissertation). For these reasons, people who are not married (but who may well live with a partner) are grouped according to their legal marital status as non-married, while married people (who may potentially live in a different place from their spouse) are classified as married.

SC (the married) and those who have no internal SC (the non-married). Thus, this chapter would be looking at the differential relationship between external SC and SWB for groups with different baseline levels of internal SC. The procedure would in both cases be identical, as well as (at least in essence) the interpretation of its results.

### ***7.1.2 What are the subgroups' usual levels of subjective well-being?***

As indicated in chapter 2, the married are generally more satisfied with their lives than the non-married (Haller & Hadler, 2006; Hayo & Seifert, 2003; Helliwell, 2003; Myers, 2000; Stutzer & Frey, 2006). Interestingly, Li (2007) reported in a study that once gender, income and social capital are controlled for, marriage was no longer significantly associated with higher SWB, although the aforementioned studies did find a robust positive (and in some cases even a causal) relationship between marriage and SWB despite a range of control variables.

### ***7.1.3 How much social capital do the subgroups usually have?***

In a similar fashion to the observed patterns regarding SWB, there is a general consensus in the literature that married people have higher levels of SC than the non-married. This may be due to the fact that married people usually have greater access to extended kin, neighbours, friends, and spouse's colleagues and friends (Li, 2007). A competing idea in this regard could be Coser's notion of marriage as a "greedy institution" that "attempts to reduce the claims from competing roles and status positions on those they wish to encompass within their boundaries" (Coser, 1974: 4).

In general, all changes in family roles such as marriage, parenthood, or divorce can affect the probability of participating in voluntary associations and informal social activities, as argued in the previous empirical chapters (Knoke & Thomson, 1977; Oesterle et al., 2004; Sundeen, 1990). Some studies, however, revealed that only marriage was a factor that consistently raised levels of civic engagement across all ages (e.g. Rotolo & Wilson, 2004). Also, married people are at least to some degree more likely to fall into the category of (especially) middle aged parents who are the most likely to play a leading role in the civic life of their communities, as argued in chapters 5 and 6 (chapter 8 will clearly disentangle these various variables). Likewise, the non-

married are relatively more often to be found among young people (who have not yet married) and old people (who are more likely to be divorced or widowed).

## **7.2 Theoretical arguments: Why would the association between social capital and subjective well-being differ between these subgroups?**

A spouse may be a vital source of support resulting in increased SWB. Meanwhile, those without a partner (i.e. those who are single, divorced, separated, and widowed) may try to compensate for not having one through increased SC. In fact, 75% of widowers and widows name loneliness as their most serious problem (Hunt, 2005). For this group, the beneficial effects of SC can be assumed to be higher than for somebody who is married and already draws social support from their spouse. In other words, the marginal utility of SC ought to be larger for the non-married than for the married.

A social institution such as marriage may not only exert an influence on the levels of participation in community life over the life course (Li & Ferraro, 2006; Omoto et al., 2000) but it may also affect the relationship with SWB that results from such participation. The accumulation of SC through socialising or volunteering takes place in a different role context for married vs. non-married people. Thus, this chapter can again partly resort to role-identity theory in order to hypothesise that the association between SC and SWB differs between married and non-married people. As marriage is usually considered to be an important stage in the life cycle, with consequences for how and who people spend their time with, there is also an element of the life course perspective here. Therefore, marital status may indicate at what stage of the life course people find themselves and what impact this has on their social life and its importance for their well-being.<sup>47</sup>

Furthermore, the married seem to have more SC than the non-married. This may have consequences for the relationship between SC and SWB. In addition, coming back to the causality discussion from chapter 2, a reverse causality perspective could imply that high life satisfaction is not so much a ‘motor for SC’ among the married compared to

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<sup>47</sup> In this regard, chapter 8 will examine more precisely how far marital status differences in the SC SWB relationship are affected by age, parenthood, and gender.

the non-married, as the former are potentially already better connected through a spouse.

Speaking in economic terms, the costs of acquiring (external) SC through socialising and civic engagement are higher for those who are married (i.e. have a high amount of internal SC). Partners put demands on one's time and reduce the time one has for other social activities. Moreover, married people are likely to spend some of their socialising with their partner's friends (who may or may not belong to one's own primary circle of friends). All these discrepancies may result in varying SWB outcomes related to the accumulation of SC.

In addition, different kinds of SC may result in more or fewer benefits in terms of SWB. It is likely that the married accumulate SC in systematically different spheres than the non-married. This question cannot conclusively be answered with the dataset at hand, as it contains no information on the type of association that respondents are involved in. However, at least the distinction between formal and informal SC can be made and differences in this regard will be examined.

### **7.3 What have related studies found?**

An analysis among Japanese parents as distinguished by marital status brought to light that the relationship between social, human and financial capital with health was stronger for single parents compared with married parents (Bassani, 2008). That study, however, does not examine differences by using interaction terms. Instead, it splits the dataset for a regression into four sub-samples to compare the groups, a technique heavily criticised by (Jaccard & Turrisi, 2003). Moreover, the SC variables used are not conventional, as they draw (exclusively) from work and the close family sphere, e.g. number of days worked, number of children, etc.

Likewise, a study of the association between volunteering and mortality rates among older adults in the US claimed that the positive "effects of volunteering [on health] are strongest for respondents who report low levels of informal social interaction and who do not live alone" (Musick et al., 1999). According to that analysis, the relationship between volunteering and the risk of mortality is stronger among those who are better socially integrated. Those results were challenged to an extent by Van Willigen (2000),

who reported that respondents who are young and have high levels of social integration experience greater increases in health from volunteering than those who are young but spent less time with family and friends. Likewise, married older adults who volunteer reported higher levels of perceived health than those older adults who were not married or did not volunteer, according to the latter study. An investigation such as the one proposed here, however, is still missing in the literature, and it can thus shed light on a number of important, so far neglected aspects.

## 7.4 Method

The analysis below will proceed in similar steps to the previous empirical chapters. Interaction terms are formed once more, in this case between marital status dummies and the three SC variables. The distinction will be between married and non-married people. As the non-married subgroups single / widowed / separated / divorced are quite small in themselves, they will be summarised under one label in order to make meaningful statements using the quantitative approach featured in this thesis. Following the discussion of descriptive levels of SC and SWB across the sub-groups studied here, OLS and ordered logit regression analyses will again examine slope heterogeneity. Finally, fitted values will illustrate the main results as usual.

## 7.5 Hypotheses

- H<sub>23</sub>: The relationship between SC in terms of *trust* and SWB will vary by marital status.
- H<sub>24</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by marital status.
- H<sub>25</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by marital status.

## 7.6 Analysis and Results

The descriptive statistics in table 12 indicate that without controlling for other factors, life satisfaction, trust and civic engagement are higher among married than non-married people. The latter, however, socialise more than the former which somewhat makes intuitive sense but is contrary to what some earlier studies have suggested. Thus, the revealed preferences examined in table 12 would suggest that married people ought to benefit more from civic engagement, while a stronger positive association between socialising and SWB can be expected for the non-married from this perspective. All means compared here yield highly significant differences; therefore, it seems that the distinction by marital status chosen here is very important and promising with regard to SC and SWB.

**Table 12: Descriptive statistics, life satisfaction and social capital by marital status**

Means (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
married (or civil partner)	7.44*** (1.83)	5.70*** (1.54)	1.42*** (1.51)	3.86*** (1.54)	1389
non-married	6.92*** (2.07)	5.46*** (1.72)	1.15*** (1.45)	4.42*** (1.53)	991
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

Model 1 in tables 13 (OLS) and 14 (ordered logit) examine once more only the control variables. The only notable difference from earlier chapters, however, is that here the distinction by marital status is non-married vs. married, with the latter being the reference category. The coefficients do not vary markedly from earlier chapters. *Ceteris paribus*, the married are more satisfied with their lives than the non-married. The same is true for the addition of the SC variables in model 2. The only identified deviation from model 2 in chapter 4 is that the coefficient for young age has now become significant as a result of the simpler, dichotomised marital status variable.

**Table 13: Unstandardised OLS estimates, correlates of life satisfaction; social capital by marital status**

	1	2	3
constant	4.757***	3.424***	2.972***
health	0.507***	0.421***	0.418***
income	0.168***	0.134**	0.132**
female	0.007	-0.017	-0.016
aged 15-29 ( <i>ref.: 30-64</i> )	0.381**	0.343*	0.313*
aged 65plus	0.619***	0.419***	0.412**
married	0.665***	0.676***	1.427***
unemployed	-0.695**	-0.797**	-0.805**
education	-0.005	-0.019	-0.018
parent	-0.061	-0.044	-0.042
religiosity	0.063***	0.045**	0.047**
trust		0.209***	0.227***
civic engagement		0.069*	0.074
socialising		0.165***	0.247***
married x trust			-0.038
married x civic engagement			-0.007
married x socialising			-0.130*
Observations	1768	1768	1768
R square	0.126	0.182	0.184
Adjusted R square	0.121	0.175	0.177

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

**Table 14: Ordered logit, correlates of life satisfaction; social capital by marital status**

	1	2	3
Life Satisfaction = 0	-2.834***	-1.579***	-1.202**
Life Satisfaction = 1	-2.283***	-1.022**	-0.643
Life Satisfaction = 2	-1.692***	-0.425	-0.044
Life Satisfaction = 3	-0.770**	0.497	0.884*
Life Satisfaction = 4	-0.125	1.157***	1.547***
Life Satisfaction = 5	0.721**	2.038***	2.432***
Life Satisfaction = 6	1.302***	2.636***	3.033***
Life Satisfaction = 7	2.193***	3.573***	3.973***
Life Satisfaction = 8	3.621***	5.051***	5.450***
Life Satisfaction = 9	4.805***	6.268***	6.665***
health	0.520***	0.444***	0.442***
income	0.134**	0.105*	0.103*
female	0.046	0.020	0.023
aged 15-29 ( <i>ref.: 30-64</i> )	0.300*	0.288*	0.258
aged 65plus	0.654***	0.475***	0.474***
married	0.545***	0.600***	1.241**
unemployed	-0.656**	-0.746**	-0.740**
education	-0.010	-0.026*	-0.025*
parent	-0.039	-0.048	-0.047
religiosity	0.057***	0.043**	0.045**
trust		0.215***	0.232***
civic engagement		0.085**	0.086
socialising		0.153***	0.222***
married x trust			-0.035
married x civic engagement			0.000
married x socialising			-0.108
Observations	1768	1768	1768

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .



Model 3 finally examines differences in the relationship between SC and SWB by marital status. Table 13 shows that the association between informal SC and SWB is stronger for non-married than married people. Figure 27 illustrates this finding. In fact, non-married people who do not socialise report extremely low life satisfaction levels when all other variables are fixed at the mean. Those non-married respondents who socialise daily reach at least the same SWB level as married respondents who do not socialise at all. But despite a steeper slope of informal SC for the non-married, overall they do not match the elevated SWB levels of the married who have the same level of informal SC. Besides, the gap in SWB between married and non-married is largest among people who never socialise and smallest among heavy socialisers. Thus, the positive effect of marriage on SWB is most pronounced for people with no informal SC.

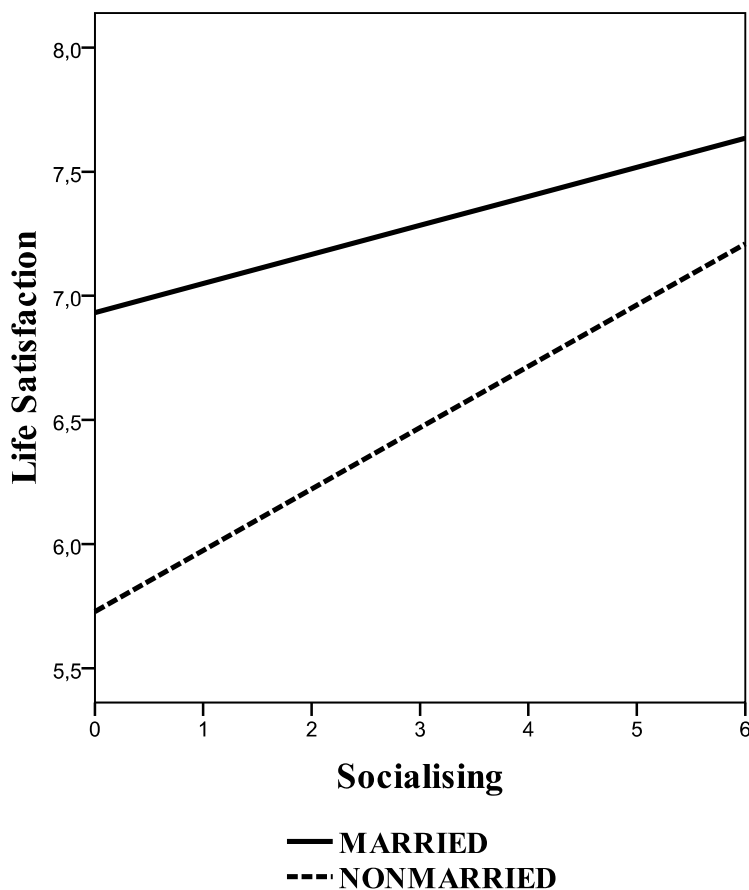


Figure 27: Fitted values for socialising and life satisfaction by marital status

The ordered logit coefficients in table 14, however, show that the association between socialising and life satisfaction is no longer significantly different for married and non-

married respondents when using this estimation method. Hence, the OLS results in this regard ought to be viewed with a certain degree of caution.

## **7.7 Conclusions**

Given the potential importance of the social institution of marriage for a person's social context of well-being, this chapter examined differences in this respect between married and non-married people. As assumed by hypothesis 25, the relationship between socialising and SWB varies between the two groups with the relationship being stronger among non-married people, at least when OLS was used. While married people who socialise a lot are not very different from those who do not socialise much in terms of life satisfaction, there is huge variation among the non-married. Non-married people who do not socialise are in fact rather dissatisfied with their lives. This finding is somewhat in line with aforementioned statistics according to which 75% of widowers and widows name loneliness as their most serious problem (Hunt, 2005). However, the non-married report SWB levels closer to those of married people at higher levels of informal SC. Thus, it can be assumed that the socialising takes place in a different role-context that entails a way out of isolation for the non-married, and which is therefore associated with greater benefits in terms of SWB. For the married, meanwhile, accumulating SC carries an aspect of a smaller marginal utility, or even role strain, and thus diminished benefits. Also, the costs of socialising seem to be higher for the married when there is a spouse, as argued earlier in economic terms.

The findings regarding informal SC and SWB are in line with the revealed preferences approach: The levels of informal SC are not only lower among the married, they are also less strongly correlated with SWB for them. Thus, it may be argued that the decreased benefits associated with socialising encourage the married to pursue this activity less often.

The state of the knowledge on how marriage is correlated with SWB can be improved at this stage by saying that marriage has a very strong impact on people at lower levels of informal SC, while among heavy socialisers the difference that marriage makes regarding SWB is a lot smaller.

As is the case for all previous chapters, the results here do not establish causality. Thus, there is also the alternative plausible interpretation that among the married, being very satisfied with one's life is not such a great prerequisite to having a rich social life as it is for the non-married. This result also makes intuitive sense, given the fact that the married have access to their spouse's social network; furthermore there could be underlying personality factors not covered in the ESS that drive both the likelihood of getting married as well as the intensity of socialising. However, as in the rest of this thesis, the analytical focus of the study and its interpretation is on the effects from SC on SWB.

No significant differences were found, however, regarding formal SC and trust, meaning that for the married and non-married there is a very similar relationship between these SC facets and SWB. Consequently no support for hypotheses 23 and 24 can be drawn from these data.

The results revealed in this chapter provoke a range of further questions. For example, are the differences in the social context of well-being discussed here affected by parenthood? Furthermore, it could be argued that age probably plays an important role in further assessing these differences. Finally, marital status might affect the relationship between SC and SWB to a different degree for men and women. Chapters 8.4, 8.5, and 8.6 will provide answers in this respect.

## **8. Combinations of subgroup dimensions to examine differences in the relationship between social capital and subjective well-being**

So far, the empirical part has revealed interesting heterogeneity between societal subgroups concerning the levels of SC and SWB, as well as regarding the relationship between these two concepts. Chapter 8 will take the analyses even further. While previous empirical chapters divided the sample only along one dimension (gender, age, parental status, or marital status, respectively), this chapter will systematically combine two dimensions per section - as outlined in chapter 2. This procedure will allow a more nuanced picture of the social context of well-being for subgroups to emerge in order to take the complexity of the social world into account as much as possible, while keeping the sample size of the subgroups large enough to make valid statements. In accordance with the structured outline of this thesis as presented in table 2 (chapter 2), the systematic approach of chapter 8 will be as follows:

**Table 15: Structure of empirical chapter 8**

The association of SC and SWB by...	age	parental status	marital status
gender	section 8.2	section 8.1	section 8.6
age		section 8.3	section 8.5
parental status			section 8.4

The sections of chapter 8 will be structured in a similar way to the empirical chapters 4 to 7. However, the following sections will be more concise. They will feature relatively more pure data analysis and less theoretical reasoning, as the relevant theoretical approaches have been laid out in the previous chapters. Also, there will be hardly any review of similar studies in the QOL literature, because as far as I am aware, there is

very little to no comparative research at all regarding the combinations of subgroups studied here.

## **8.1 Differences in the relationship between social capital and subjective well-being by gender and parental status combined**

### ***8.1.1 Background***

The empirical analyses on SC and SWB by gender in chapter 4 and by parental status in chapter 6 have brought to light some interesting patterns. First of all, the association between socialising and SWB was stronger for women (albeit only using the OLS method and not ordered logit), and the sexes also differed regarding the relationship between formal SC and SWB. Similarly, the relationship between formal SC and SWB was positive and strong for non-parents, while it was almost non-existent for parents. These results call for a more precise investigation in order to provide a more nuanced picture in this regard. Hence, this section shall examine whether:

- a. The revealed differences between parents and non-parents in the social context of well-being vary between men and women?
- b. The gendered patterns in the social context of well-being are different for parents and non-parents?

The following analysis will thus compare mothers, fathers, childless men and childless women.<sup>48</sup> This procedure is not only a logical result of the structured approach chosen for this thesis which was outlined in table 2 (in chapter 2) and table 15 (in this section). There are further promising theoretical reasons for this sub-distinction. More precisely, a qualitative study featuring interviews with 30 Australian women who are involved in community life elaborated on the possible negative consequences that civic engagement can have for them (Osborne et al., 2009). In fact, *mothers*, in particular, frequently reported having a guilty conscience when volunteering because they felt they were neglecting their family responsibilities by spending time in civic engagement:

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<sup>48</sup> Due to similar reasons given in chapter 5 for distinguishing only 3 instead of 4 age groups in chapter 8, notably a decreasing clarity of the analysis when too many subgroups are involved and lack of robustness due to a diminishing sample size, chapter 8 will only feature the distinction parents vs. non-parents divided by the various aforementioned dimensions (gender, age, marital status) instead of featuring parents of younger vs. older children vs. non-parents.

“participating can create negative pressures which may have an impact on women’s mental health, in that when they undertake regular activities for their own, rather than their children’s benefit, a sense of guilt at not being a ‘good enough’ mother may be fostered” (ibid.: 219).

Thus, expanding the role-identity approach outlined in earlier chapters, for those women who have children the accumulation of formal SC seems to be more an outcome of their role as a parent, and it could consequently be less discretionary and beneficial. This may concern mothers more than fathers as the former are – despite a certain value change over the past 50 years - still viewed as the primary carers for children in most Western countries. This includes the UK (where the dataset for this dissertation is from) as well as Australia (where the aforementioned qualitative study by Osborne et al. was conducted). Moreover, other qualitative studies have documented the negative emotional ‘cost’ for women of investing time and energy in activities to support their children (e.g. Reay, 2005). At the end of the day, Osborne et al.’s empirical study vividly confirms the point made by role-identity theory in this regard.

“Most of the participants reported that their current or past involvement in group activities was supporting children’s recreational or educational pursuits, and this was viewed as an extension of their parenting responsibilities” (ibid.: 217).

In contrast to the mothers interviewed for that study, *childless women* often reported that they participated in associations as a result of a conscious decision to surround themselves with children and therefore enjoyed great benefits from their SC.

“For some women who were not mothers, participation in groups oriented towards children’s activities was seen as an important and meaningful way to be connected to children. For Rhiannon, a woman who lives with her partner and worked full-time, this connection with children was an important part of why she chose to become a leader in a local guides group: ‘I’ve gone into that because I don’t have children of my own and that was a conscious decision of my own, but I also still wanted to be in touch with that next generation and I wanted to make a difference, and I felt like I could do that, doing this sort of work with the kids directly’ (Rhiannon, Burnside, High Participator, 43 years). Rhiannon’s comments illustrate how some women who are not mothers identify the importance of being able to make a meaningful contribution to children’s lives” (ibid.: 218).

Despite the interesting results of the study quoted here, in the end it has to be said that a systematic comparison of the association between SC and SWB between mothers, fathers, childless men and childless women is still missing from the literature. This is why the analysis proposed in this section is important in order to shed more light on whether the patterns discovered in the study quoted above are unique to women or if they are equally applicable to men.

### **8.1.2 Hypotheses**

- H<sub>26</sub>: The relationship between SC in terms of *trust* and SWB will vary by gender and parental status (i.e. between mothers, fathers, childless women and childless men).
- H<sub>27</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by gender and parental status (i.e. between mothers, fathers, childless women and childless men).
- H<sub>28</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by gender and parental status (i.e. between mothers, fathers, childless women and childless men).

### **8.1.3 Analysis and results**

The descriptive statistics in chapter 4 revealed very similar levels of SC and SWB for both men and women. An exception, however, was that civic engagement rates are higher among women. A further distinction of gender by parental status in table 16 highlights interesting qualifying results in this respect. For instance, without controlling for other factors, life satisfaction is slightly lower among mothers (compared to fathers), and higher among childless women (compared to childless men). Thus, there are certain gender differences in SWB, as the ‘happier gender’ seems to be men among parents and women among non-parents. Furthermore, the previously noted female advantage in civic engagement is more pronounced among childless people, as this analysis illustrates. Finally, socialising levels are slightly higher among mothers compared to fathers, while no gender difference can be noted among childless people.

In a similar fashion the table permits additional statements about the levels of SC and SWB by parental status (as discussed in chapter 6) whilst also considering gender. It

was noted earlier that parents have more trust and formal SC, while they had less informal SC and roughly equal SWB levels when compared with non-parents. Now it can be seen that the SWB levels do actually differ by parental status if gender is taken into the equation, in a sense that being a parent is slightly *beneficial* for men and *detrimental* for women regarding satisfaction with their lives – not controlling for other factors. Moreover, the aforementioned lower rates of formal SC among childless people turn out to be due to childless men only, as childless women show almost equally high levels of civic engagement compared with parents. Last but not least, socialising is lower for parents of both genders compared with non-parents, albeit slightly lower still for fathers.

**Table 16: Descriptive statistics, life satisfaction and social capital by gender and parental status**

<b>Means (Std. Dev.)</b>	Life Satisfaction	Trust	Civic Engagement	Socialising	N
Mothers	7.19** (2.06)	5.65 (1.64)	1.39* (1.54)	3.96 (1.59)	952
Fathers	7.29 (1.96)	5.63 (1.66)	1.36 (1.51)	3.85*** (1.57)	718
Childless women	7.31 (1.76)	5.55 (1.49)	1.34 (1.48)	4.48*** (1.37)	332
Childless men	7.14 (1.81)	5.50 (1.60)	1.03*** (1.32)	4.49*** (1.50)	418
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. When there are subgroups of more than two categories, the t-test reflects the distinction dummy variable (e.g. mothers) vs. rest of the sample.

In the end, it should be noted here explicitly that, despite the previously discussed burden that voluntary work may place on mothers, they have the highest rate of civic engagement of all four subgroups. Thus, taking these scores as the *revealed preferences* of respondents, one would have to conclude that mothers seem to be the ones who thrive most on formal SC.



Chapter 4 has highlighted gender differences in the relationship between informal SC and SWB, and in the association between formal SC and SWB. The coefficients for the dependent variable life satisfaction in tables 17 (OLS) and 18 (ordered logit) allow an examination of the question whether these gender differences affect parents and non-parents equally. Similarly, chapter 6 revealed that the relationship between formal SC and SWB is stronger for non-parents compared with parents. Tables 17 and 18 in this section illuminate how far that finding is valid for both genders or differs between them.

First of all, model 1 in both tables 17 and 18 highlights the effects of gender and parental status combined whilst controlling for a range of other factors. Thus, *ceteris paribus*, there are no significant life satisfaction differences between mothers, fathers, childless women (reference category), and childless men.

Model 2 then examines differences in the SC SWB relationship by gender and parental status by distinguishing four subgroups at once. It shows a remarkable result regarding women. While the association between civic engagement and SWB is very strong and positive for the reference category of childless women, it is slightly negative for mothers ( $b = -0.023^*$ ), as further illustrated in figure 28. For both male subgroups, meanwhile, there is no significant deviation from the reference category (childless women) regarding the slope. Their graphs are displayed next to the female subgroup graphs in the subsequent figure 29.

Thus, the often proclaimed benefits of formal SC do not seem to be felt by mothers. Their graph in figure 28 shows that those mothers who volunteer a lot are not any more satisfied with their lives than those who do not volunteer at all - in fact, they are even slightly less satisfied. Meanwhile, childless women are the subgroup in this thesis that has the biggest difference in life satisfaction between those having no formal SC and those having much of it. Furthermore, there is only a small difference in life satisfaction between mothers and childless women at low levels of civic engagement. Thus, being a female *parent* vs. female *non-parent* has the largest effect on SWB at high levels of formal SC, as illustrated by the large gap in life satisfaction between childless women who volunteer *at least once a week* and mothers who do so.

**Table 17: Unstandardised OLS estimates, correlates of life satisfaction; social capital by gender and parental status**

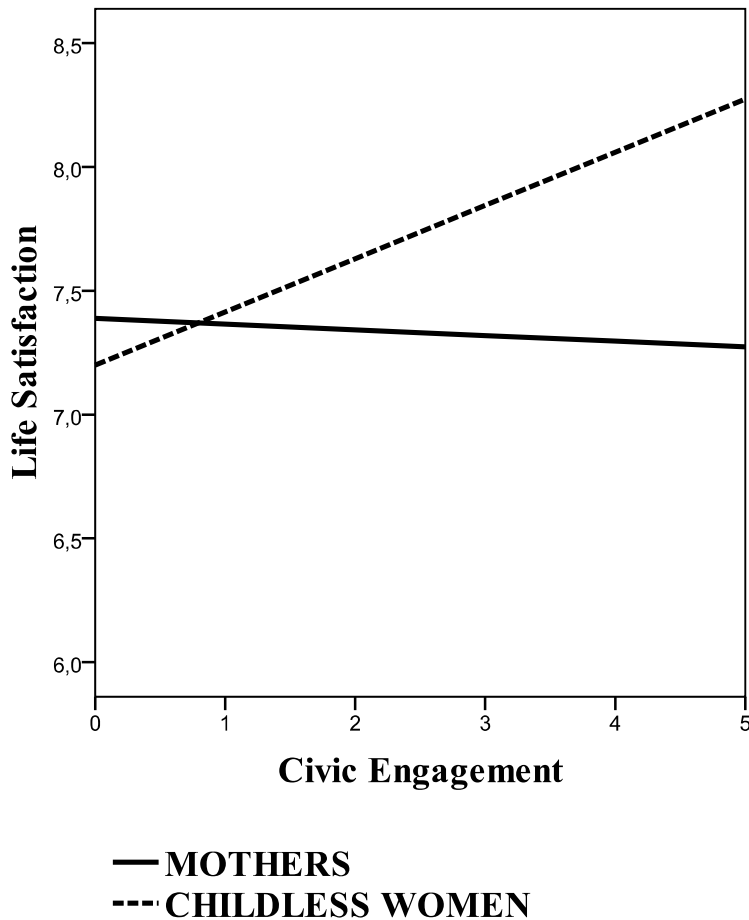
	1	2
constant	4.196***	4.480***
health	0.430***	0.430***
income	0.129**	0.132**
aged 15-29( <i>ref.: 30-64</i> )	0.200	0.203
aged 65+	0.391**	0.378**
single ( <i>ref.: married</i> )	-0.409**	-0.418**
separated	-0.992**	-1.015***
divorced	-0.976***	-0.959***
widowed	-0.592**	-0.582**
unemployed	-0.821**	-0.803**
education in years	-0.020	-0.018
religiosity	0.047**	0.046**
trust	0.206***	0.120
civic engagement	0.065*	0.215*
informal socialising	0.163***	0.153
childless men ( <i>ref.: ch.less women</i> )	-0.252	-0.827
childless men x trust		0.152
ch.less men x civic engem.		-0.116
ch.less men x socialising		-0.020
fathers	-0.051	-0.084
fathers x trust		0.066
fathers x civic eng.		-0.119
fathers x socialising		-0.044
mothers	-0.155	-0.685
mothers x trust		0.096
mothers x civic eng.		-0.238*
mothers x socialising		0.082
Observations	1768	1768
R square	0.188	0.194
Adjusted R square	0.180	0.182

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , and \*  $p < 0.05$ .

**Table 18: Ordered logit, correlates of life satisfaction; social capital by gender and parental status**

	1	2
Life Satisfaction = 0	-2.296***	-2.934***
Life Satisfaction = 1	-1.739***	-2.379***
Life Satisfaction = 2	-1.141**	-1.780**
Life Satisfaction = 3	-0.213	-0.847
Life Satisfaction = 4	0.453	-0.178
Life Satisfaction = 5	1.340***	0.712
Life Satisfaction = 6	1.942***	1.317*
Life Satisfaction = 7	2.883***	2.264***
Life Satisfaction = 8	4.364***	3.753***
Life Satisfaction = 9	5.582***	4.978***
health	0.455***	0.453***
income	0.100*	0.101*
aged 15-29 ( <i>ref.:30-64</i> )	0.148	0.148
aged 65+	0.465***	0.440**
single ( <i>ref.: married</i> )	-0.339*	-0.352*
separated	-0.895**	-0.930**
divorced	-0.902***	-0.893***
widowed	-0.545**	-0.530**
unemployed	-0.770**	-0.747**
education in years	-0.026*	-0.024*
religiosity	0.045**	0.045**
trust	0.212***	0.087
civic engagement	0.082**	0.269**
informal socialising	0.149***	0.106
childless men ( <i>ref.: ch.less women</i> )	-0.232	-1.327
childless men x trust		0.201
ch.less men x civic engagem.		-0.165
ch.less men x socialising		0.048
fathers	-0.075	-0.400
fathers x trust		0.099
fathers x civic eng.		-0.149
fathers x socialising		-0.013
mothers	-0.119	-1.043
mothers x trust		0.155
mothers x civic eng.		-0.293**
mothers x socialising		0.111
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$  and +  $p \leq 0.1$ .

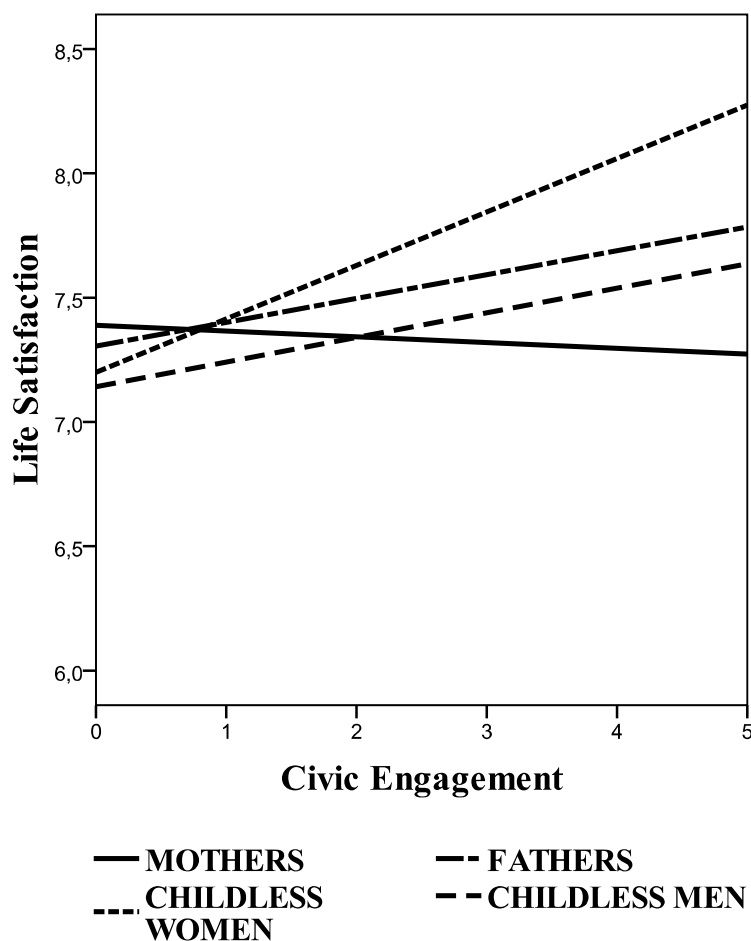


**Figure 28: Fitted values for civic engagement and life satisfaction by gender and parental status - female subgroups only**

How mothers and childless women differ regarding volunteering and SWB can also be demonstrated by calculating income compensating differentials. Based on the regression coefficients and assuming a causal effect of x on y, this method allows estimating which amount of income would be necessary to match an increase in life satisfaction that is associated with a change in SC. It turns out that among childless women, a shift from no civic engagement to volunteering at least once a week is on average associated with an increase in life satisfaction by 1.075 on the 11-point scale. This rise corresponds to an increase in income by £8,144 per month. For mothers, on the other hand, such an intensification of civic engagement would have the same life satisfaction effect as reducing their monthly income by £870 (-0.115 points).

Comparing the effect of parenthood between the sexes, it must be stressed that only the interaction term for mothers is significant in model 2 (of both tables 17 and 18). This result shows that the previously found difference in slopes between parents and non-

parents in chapter 6 is actually mainly due to the difference among female respondents, i.e. between mothers and childless women. There is no significant difference in the rising slopes between childless women, fathers, and childless men,<sup>49</sup> meaning that only the mothers stand out in this analysis. Hence, there is evidence of a “motherhood penalty” regarding the benefits from volunteering. This term was coined in a different context by Correll et al. (2007: 1297) based on the finding that mothers were discriminated against in the workplace compared to childless women, e.g. with respect to their salary. Men, on the other hand, were not penalised for being parents. Earlier research had also revealed that the pay gap between mothers and non-mothers is actually larger than the pay gap between men and women (Crittenden, 2001). Such results translate into the psychological benefits of voluntary work examined here: If we think of increased life satisfaction as a non-monetary reward usually associated with volunteering, then mothers are not getting any of it, while fathers and non-parents do.



**Figure 29: Fitted values for civic engagement and life satisfaction by gender and parental status - all subgroups**

<sup>49</sup> There still is no difference between these subgroups even when altering the reference category (not shown).

The ordered logit regression in model 2 of table 18 confirms this OLS finding. Volunteering increases the chances of reporting higher scores of life satisfaction for 3 out of 4 subgroups. Particularly for childless women, a single category increase on the volunteering variable results in a 30.9% higher chance of reporting higher rather than lower life satisfaction (based on the calculated odds ratios). The effects corresponding to the civic engagement of fathers and childless men are not significantly different from the one for childless women in this regard. For mothers, however, there is no positive effect of such formal SC on SWB, and the coefficient differs significantly from the reference category (childless women). Hence, the motherhood penalty persists even if ordered logit regression is chosen as opposed to OLS. Mothers who volunteer more have a slightly *lower* chance of being in the higher life satisfaction categories. More precisely, a mother's odds of reporting a rather *low life satisfaction* score (i.e.  $y \leq j$  rather than  $y > j$  for any answer category  $j$  of the life satisfaction variable) multiply by 1.024 for every point increase on the volunteering variable.

### **Sensitivity analysis**

At this stage, an additional sensitivity analysis of the results will be conducted. This chapter was chosen for this further analytical step since, in the context of the whole dissertation, this chapter has turned out to contain key findings. Although the (explanatory) SC variables are treated as numerical in this thesis, they could strictly speaking be considered only as ordinal. Hence, a sensitivity analysis may be promising in which the values of the socialising and the civic engagement variables have been recoded so as to reflect the answer categories in a different manner (on a 10 point scale, rather than a 6 and a 7 point scale as before). This procedure serves to counter a potential criticism, that the ordinal nature of the explanatory variables is not properly represented by a numerical 6 or 7 point scale with equal distances between the points.<sup>50</sup>

However, the findings reported in this section remain present even during the additional sensitivity analysis as displayed in table 19. Both OLS and ordered logit regression

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<sup>50</sup> More precisely, in the sensitivity analysis the civic engagement variable was recoded from [0 = never, 1 = less often, 2 = at least once every six months, 3 = at least once every three months, 4 = at least once a month, 5 = at least once a week] into [0 = never, 1 = less often, 2 = at least once every six months, 4 = at least once every three months, 5 = at least once a month, 9 = at least once a week]. Likewise, the socialising variable was recoded from [0 = never, 1 = less than once a month, 2 = once a month, 3 = several times a month, 4 = once a week, 5 = several times a week, 6 = every day] to [0 = never, 1 = less than once a month, 2 = once a month, 3 = several times a month, 5 = once a week, 7 = several times a week, 9 = every day].

coefficients mirror the result regarding the motherhood penalty discussed earlier, with the SC effects and interaction terms simply being smaller due to the coding on a 10-point scale. Finally, it should be noted that no significant subgroup difference was found regarding trust as a measure of SC in any model examined in this section.

**Table 19: Sensitivity analysis with formal and informal social capital variables recoded onto a 10-point scale**

	<u>OLS</u>	<u>Ordered logit</u>
Life Satisfaction = 0		-3.071***
Life Satisfaction = 1		-2.517***
Life Satisfaction = 2		-1.920**
Life Satisfaction = 3		-0.989
Life Satisfaction = 4		-0.322
Life Satisfaction = 5		0.565
Life Satisfaction = 6		1.167
Life Satisfaction = 7		2.110***
Life Satisfaction = 8		3.596***
Life Satisfaction = 9		4.821***
constant	4.643***	
health	0.437***	0.457***
income	0.139*	0.094
aged 15-29 ( <i>ref.: 30-64</i> )	0.207	0.143
aged 65+	0.342**	0.407**
single ( <i>ref.: married</i> )	-0.451**	-0.381**
separated	-1.066***	-0.978**
divorced	-1.022***	-0.941***
widow	-0.629**	-0.566**
unemployed	-0.816**	-0.756**
education in years	-0.014	-0.021
religiosity	0.045**	0.043**
trust	0.118	0.084
civic engagement	0.140*	0.175**
informal socialising	0.099	0.072
childless men ( <i>ref.: childless women</i> )	-0.909	-1.364
childless men x trust	0.156	0.206
childless men x civic engagem.	-0.080	-0.112
childless men x socialising	-0.009	0.030
fathers	-0.075	-0.392
fathers x trust	0.074	0.110
fathers x civic engagement	-0.094	-0.117
fathers x socialising	-0.042	-0.024
mothers	-0.618	-0.996
mothers x trust	0.098	0.159
mothers x civic engagement	-0.144*	-0.176**
mothers x socialising	0.033	0.051
Observations	1768	1768
R square	0.189	
Adjusted R square	0.177	

\*\*\* indicates significance at  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

#### 8.1.4 Conclusions

Differences between parents and childless people were found in chapter 6 with formal SC having a stronger positive effect on non-parents' SWB. That effect, however, was mainly due to the female respondents, as revealed by the analysis in this section combining both the gender and the parental status dimension. While childless women showed the strongest positive relationship between formal SC and SWB, there is a weak and slightly negative association among mothers, despite them having the highest rates of civic engagement. This result supports hypothesis 27 that the relationship between SC in terms of *civic engagement* on SWB varies by gender and parental status. Meanwhile, the analyses in this section do not support hypotheses 26 and 28.

Two interpretations follow the strikingly different well-being effect of civic engagement among women. First, childless women seem to thrive on volunteering. Bearing in mind that the female SC profile is largely based on the areas of care and nurture (Lowndes, 2006), voluntary work seems to provide them with a sense of fulfilment that may be rooted in their gender identity. More precisely, women who do not have children of their own reported in qualitative interviews that they got involved in community life in order to surround themselves with kids (Osborne et al., 2009). This may give them an opportunity - that they do not have to this degree in their families - to reinforce their female gender identity.

Second, mothers do not seem to benefit from civic engagement. This lack of a positive association between civic engagement and SWB for mothers with regard to them having the highest levels of civic engagement seems puzzling at a first glance. Why would mothers volunteer so much if this is not associated with more (but even slightly less) well-being? In fact, these results cast doubts on revealed preferences as a measure of utility for this subgroup and are contrary to what rational choice theory and the homo economicus approach propose. Both assume that human beings act according to their preferences in order to maximise utility.

Instead, this result reinforces the assumptions held by role-identity theory and the homo sociologicus approach (Dahrendorf, 1973 [1958]). According to this model, human action is restricted by societal norms and expectations. Thus, homo sociologicus acts in order to fulfil role obligations which entail positive or negative sanctions by other members of society (ibid.). Therefore, mothers can be assumed to volunteer out of role



obligations rather than to maximise their own utility. After all, in Osborne et al.'s (2009: 221) in-depth interviews, mothers described their widespread engagement in parenting-based groups as “normal and inevitable”. Moreover, they may suffer from feelings of guilt when neglecting their family responsibilities due to civic engagement as they often have to ‘juggle’ several family and work-related responsibilities (ibid.).

The usual comments and disclaimers on causality (which will be outlined again in detail in the Limitations section, chapter 9) apply also to this section, of course. Nonetheless, the analysis was able to show in how far the differences between parents and non-parents in the relationship between SC and SWB reported in chapter 6 vary between men and women, as well as how the gendered patterns in the social context of well-being which were outlined in chapter 4 are different for parents and non-parents.

## **8.2 Differences in the relationship between social capital and subjective well-being by age and gender combined**

### ***8.2.1 Background***

The analyses on gender in chapter 4 and on age in chapter 5 have highlighted that the relationship between socialising and SWB was stronger for women, and there were gender differences in the relationship between formal SC and SWB. Likewise, for people in the (lower) middle age group, socialising was less strongly associated with SWB than for young and old respondents. These results demand a more specific analysis<sup>51</sup> to see whether:

- c. The gendered patterns in the social context of well-being are different for various age groups?
- d. The age-related patterns in the social context of well-being vary between men and women?

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<sup>51</sup> As explained at the end of chapter 5, chapter 8 will be based on 3 age groups (instead of 4 groups as in chapter 5). This is due to the fact that further splitting up these age groups by parental status, gender and marital status, as it is done in this chapter, runs a risk of too small sample sizes and the clarity of the findings may suffer if there are too many subgroups. Also, the theoretically really interesting question is along the distinction of middle age vs. young and old, and not lower middle age vs. upper middle age.

### 8.2.2 *Hypotheses*

- H<sub>29</sub>: The relationship between SC in terms of *trust* and SWB will vary by gender and age.
- H<sub>30</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by gender and age.
- H<sub>31</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by gender and age.

### 8.2.3 *Analysis and results*

The analysis in chapter 4 found that the sexes have fairly similar levels of SC and SWB, but that civic engagement rates are higher among women. Table 20 reveals that the latter difference is actually due to men and women in the middle age group, while levels of formal SC are quite similar for both sexes in young and old age. Trust and life satisfaction levels do not vary much between the sexes across age groups. With regard to informal SC, however, it can be noted that men socialise slightly more than women in young age, while women take a narrow lead on this in middle and old age.

The descriptive statistics in chapter 5 have shown that SWB is u-shaped over the life cycle. Table 20 confirms that this pattern is roughly identical for both sexes. Trust also increases with age for both men and women (although the peak in old age is slightly higher for women). The interesting switch, noted in chapter 5, from accumulating informal to formal SC when entering middle age, actually plays out differently for men and women. More precisely, the reduction in socialising during middle age is stronger for men, while the increase in civic engagement is smaller for them; a finding that may be due to less free time during middle age given men's widespread role as primary breadwinner. In fact, socialising rates are highest among young men and lowest among middle aged men, making for a drastic reduction of informal SC for men on the border between young and middle age.

Overall, old men have the highest life satisfaction, while middle aged women have the lowest. The fluctuations in SWB are higher by age than by gender, meaning that the discriminatory power of age is larger than that of gender in this regard.

**Table 20: Descriptive statistics, life satisfaction and social capital by gender and age**

Mean (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
aged 15-29 female	7.24 (1.60)	5.37* (1.43)	1.04** (1.31)	4.73*** (1.37)	250
aged 15-29 male	7.28 (1.70)	5.35** (1.57)	1.00*** (1.32)	4.83*** (1.36)	264
aged 30-64 female	7.14 (2.05)	5.59 (1.60)	1.50*** (1.51)	3.85*** (1.53)	730
aged 30-64 male	7.15 (1.94)	5.58 (1.60)	1.30 (1.44)	3.78*** (1.54)	642
aged 65plus female	7.40 (2.13)	5.95*** (1.74)	1.33 (1.68)	4.18 (1.57)	255
aged 65plus male	7.44 (2.01)	5.85* (1.79)	1.36 (1.64)	4.08 (1.61)	219
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. When there are subgroups of more than two categories, the t-test reflects the distinction dummy variable (e.g. aged 15-29 male) vs. rest of the sample.

We know from chapter 4 that civic engagement and socialising are correlated in different ways with SWB for men and women. Table 21 (OLS) and table 22 (ordered logit) examine whether these gender differences can be observed across age groups. Similarly, chapter 5 has revealed that informal SC is less strongly associated with SWB for people in the (lower) middle age group. The regression analyses in this section also investigate if this is true for both sexes in the same manner.

First of all, it can be seen from model 1 in both tables that, *ceteris paribus*, old women are more satisfied with their lives than the reference category (middle aged men). Hence, a certain gender difference can be observed once age is factored in. Focusing on the interaction terms in model 2 (of table 21), it turns out that informal SC is significantly more strongly associated with life satisfaction for all subgroups compared

to the reference category middle aged men, except for young women for whom the interaction term is not significant.<sup>52</sup>

These results mean that the gender difference in the relationship between socialising and SWB observed in chapter 4 is actually due to the middle age group. During younger and older age, the sexes do not differ as much in their relationship between informal SC and SWB. Moreover, the weaker association found in chapter 5 regarding informal SC and SWB for people in the (lower) middle age group is actually only due to the men of that age. Women during middle age do not differ markedly from young and old people in terms of the importance of socialising for life satisfaction.

It is indeed remarkable to see in figure 30 how much middle aged men stand out. There is almost no difference in life satisfaction between middle aged men who socialise a lot and those who do not socialise at all. This is especially noteworthy given the fact that *young* men have the steepest slope. Something happens to men as they reach middle age, in a way that they not only reduce the frequency of their socialising (see descriptive statistics in table 20), but also the intensity of their socialising ceases to matter for their life satisfaction. It is only in old age that men return to a positive relationship between socialising and SWB. For women, there are no great slope differences throughout the life course.

The gender difference regarding formal SC and SWB observed in chapter 4 does not reappear in this analysis.<sup>53</sup> Due the combination of the two middle age groups from chapter 5 into one single category, the previously observed difference in the relationship between formal SC and SWB is not examined any further in this section. Finally, it does appear that a smaller coefficient for socialising is accompanied by a larger coefficient for civic engagement when men reach middle age, which would fit into the outlined narrative of a switch in priorities at the transition to midlife. None of the interaction coefficients for civic engagement in Table 21 are significant, though, so this particular finding will not be interpreted as valid.

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<sup>52</sup> The latter finding does not seem to be due to sample size, as there are only a few less young women than young men in the sample.

<sup>53</sup> Again, an additional analysis featuring squared terms in order to examine curvilinearity did not yield any significant results.

**Table 21: Unstandardised OLS estimates, correlates of life satisfaction; social capital by gender and age**

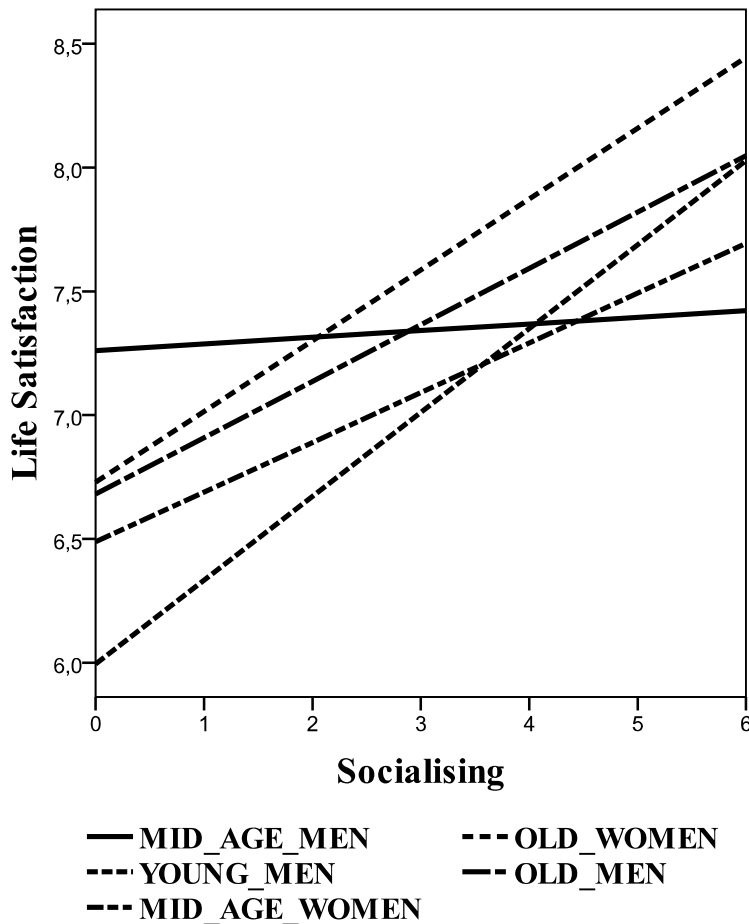
	1	2
constant	4.110***	4.674***
health	0.428***	0.422***
income	0.129**	0.126**
single ( <i>ref.: married</i> )	-0.421**	-0.433**
separated	-1.005**	-0.959**
divorced	-0.980***	-0.951***
widowed	-0.666**	-0.689***
unemployed	-0.822**	-0.834**
education in years	-0.018	-0.019
parent	0.040	0.044
religiosity	0.047**	0.045**
age15-29 female ( <i>ref.: age 30-64 male</i> )	0.189	0.034
age15-29 male	0.107	-1.254
age30-64 female	-0.120	-0.798
age65plus female	0.489**	-0.214
age65plus male	0.227	-1.169
trust	0.203***	0.186***
civic engagement	0.068*	0.135*
informal socialising	0.161***	0.027
aged 15-29 female x trust		-0.120
aged 15-29 male x trust		0.044
aged 30-64 female x trust		0.031
aged 65plus female x trust		-0.017
aged 65plus male x trust		0.108
aged 15-29 female x civic engagement		0.105
aged 15-29 male x civic engagement		-0.199
aged 30-64 female x civic engagement		-0.114
aged 65plus female x civic engagement		-0.171
aged 65plus male x civic engagement		-0.012
aged 15-29 female x socialising		0.179
aged 15-29 male x socialising		0.312**
aged 30-64 female x socialising		0.174*
aged 65plus female x socialising		0.259*
aged 65plus male x socialising		0.201*
Observations	1768	1768
R square	0.188	0.199
Adjusted R square	0.179	0.184

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

**Table 22: Ordered logit, correlates of life satisfaction; social capital by gender and age**

	1	2
Life Satisfaction = 0	-2.185***	-2.676***
Life Satisfaction = 1	-1.627***	-2.112***
Life Satisfaction = 2	-1.029**	-1.511***
Life Satisfaction = 3	-0.100	-0.579
Life Satisfaction = 4	0.566	0.092
Life Satisfaction = 5	1.454***	0.987*
Life Satisfaction = 6	2.057***	1.595***
Life Satisfaction = 7	2.999***	2.549***
Life Satisfaction = 8	4.480***	4.049***
Life Satisfaction = 9	5.699***	5.276***
health	0.456***	0.459***
income	0.102*	0.099*
single ( <i>ref.: married</i> )	-0.356*	-0.374**
separated	-0.908**	-0.829**
divorced	-0.907***	-0.876***
widowed	-0.641**	-0.653**
unemployed	-0.770**	-0.816**
education in years	-0.025*	-0.026*
parent	0.035	0.047
religiosity	0.045**	0.044**
age15-29 female ( <i>ref.: age 30-64 male</i> )	0.132	0.068
age15-29 male	0.120	-1.100
age30-64 female	-0.069	-0.561
age65plus female	0.649***	-0.295
age65plus male	0.271	-1.166
trust	0.211***	0.204***
civic engagement	0.084**	0.141**
informal socialising	0.148***	0.021
aged 15-29 female x trust		-0.108
aged 15-29 male x trust		0.015
aged 30-64 female x trust		0.002
aged 65plus female x trust		0.041
aged 65plus male x trust		0.095
aged 15-29 female x civic engagement		0.211
aged 15-29 male x civic engagement		-0.212
aged 30-64 female x civic engagement		-0.121
aged 65plus female x civic engagement		-0.189
aged 65plus male x civic engagement		0.074
aged 15-29 female x socialising		0.121
aged 15-29 male x socialising		0.318**
aged 30-64 female x socialising		0.172*
aged 65plus female x socialising		0.238*
aged 65plus male x socialising		0.197
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .



**Figure 30: Fitted values for socialising and life satisfaction by gender and age**

The ordered logit coefficients in table 22 confirm the results, with the exception that the interaction term for old men and socialising is no longer significant. This means that when ordered logit is used, there is no significant slope difference for informal SC and SWB between middle aged and old men.

### 8.2.4 Conclusions

The results from chapters 4 and 5 received a further specification in this section in that, with regard to informal SC, the gendered patterns in the social context of well-being are different for various age groups. The previously described gender differences with regard to socialising and SWB are actually due to the subgroup of middle aged men, for whom there is only a very slightly positive association. For all other subgroups, the slope is markedly positive (with the exception being an insignificant interaction term for young women, as well as – when ordered logit is used – old men). Furthermore, this means that the age-related patterns in the social context of well-being vary between men and women, given that there is almost no age difference in the slope for women, while

as described earlier middle aged men do stand out from their younger and older fellows. Thus, hypothesis 31 receives some support by this data, while hypotheses 29 and 30 do not since the interaction terms for trust and formal SC were not significant.

These results also indicate that the life course approach taken in chapter 5 may further be qualified by a gender dimension. For men, it really seems as if the roles they occupy during their middle life years do have a rather distinguishing effect on their social context of well-being. Socialising matters less for their life satisfaction, which could mean that either the nature of the informal SC that they acquire is of inferior quality, or that the typical utility function for a member of this group does not include socialising – at least not to the extent of the other groups examined here.

Finally, the gender approach as developed in chapter 4 can be modified by the observation that the gender differences play out most significantly during middle age. This finding makes sense given that societal roles are likely to be at their most different for men and women during those years, and specialisation may reach its peak (Becker 1981). The idea that such differences and specialisation simply increase as people age in a linear fashion cannot be supported by this data on SC and SWB.

The assumption stated in chapter 5 that for the middle age group the marginal utility of SC will be smaller given their integration in the work and family sphere seems to be especially valid for the men of that subgroup. It makes intuitive sense, as they are more commonly the breadwinners, although this larger question can only conclusively be disentangled if further distinctions by employment status, time-budget, and the like are taken into account (see chapter 9 on Future Research). Nonetheless, the analysis in this section has highlighted an interesting pattern that is worth noting and promises fruitful further exploration in the future.

Finally, a reverse causality perspective on these findings would suppose that middle aged men do not need to be satisfied with their lives in order to socialise a lot. However, the focus of interpretation here - as stated elsewhere - is on the effects of SC on SWB.



## 8.3 Differences in the relationship between social capital and subjective well-being by age and parental status combined

### 8.3.1 *Background*

Chapter 5 has shown variations across age groups both in the levels of SC and SWB, as well as regarding the association between the two concepts. For instance, among people in the (lower) middle age group, socialising was less strongly associated with SWB than for young and old respondents. Likewise, parents and non-parents differ in their social context of well-being, as revealed in chapter 6. More precisely, the relationship between formal SC and SWB was positive for non-parents, while for parents no such relationship could be found (at most a very weak positive one).

Moreover, an interesting shift was observed in the descriptive statistics of chapter 5 and 6 from informal to formal SC at the intersection between young and middle age, as well as for parents compared to non-parents. These patterns of elevated civic engagement and reduced socialising during middle age and among parents (especially of younger children) call for an examination to see whether they are due to an age effect or a parenthood effect. The more nuanced analysis in this chapter will be able to provide clues in this regard. Hence, this section will provide a more insightful analysis in order to examine whether:

- e. The age-related patterns in the social context of well-being are different for parents and non-parents?
- f. The differences between parents and non-parents in the social context of well-being are identical for all age groups?

### 8.3.2 *Hypotheses*

H<sub>32</sub>: The relationship between SC in terms of *trust* and SWB will vary by age and parental status.

H<sub>33</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by age and parental status.

H<sub>34</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by age and parental status.

### 8.3.3 Analysis and results

**Table 23: Descriptive statistics, life satisfaction and social capital by age and parental status**

Mean (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
aged 15-29 parent	6.95 (1.98)	5.14** (1.65)	0.75*** (1.24)	4.15 (1.78)	89
aged 15-29 childless	7.33 (1.57)	5.41** (1.47)	1.08*** (1.32)	4.91*** (1.22)	425
aged 30-64 parent	7.21 (1.98)	5.58 (1.60)	1.45*** (1.49)	3.80*** (1.56)	1112
aged 30-64 childless	6.88** (2.04)	5.59 (1.59)	1.24 (1.45)	3.86* (1.43)	259
aged 65plus parent	7.36 (2.10)	5.89*** (1.75)	1.34 (1.67)	4.15 (1.55)	411
aged 65plus childless	7.79* (1.90)	6.00 (1.81)	1.35 (1.65)	4.01 (1.80)	63
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , p \*\*  $\leq 0.01$ , p \*  $\leq 0.05$ .

N.B. When there are subgroups of more than two categories, the t-test reflects the distinction dummy variable (e.g. aged 15-29 parent) vs. rest of the sample.

The descriptive statistics in table 23 reveal a range of noteworthy results. First of all (and again without controlling for other factors), childless people in the middle age group have the lowest life satisfaction, while old childless people report the highest. Trust increases by age regardless of parental status, although young and old childless people report higher trust rates than parents in their same respective age group. Civic engagement is lowest among young people who have children and highest among middle aged people who have children. Thus, among parents the increase in civic engagement at the transition between youth and middle age is particularly strong. In terms of socialising, there is a remarkable discrepancy between young parents and the young childless, with the latter having the highest rates of socialising of all groups. This discrepancy between parents and non-parents shrinks drastically during middle age where parents and non-parents have almost equal levels, whereby middle aged parents have the lowest rates of socialising of any group in this table.

Chapter 5 illustrated that SWB is u-shaped over the life cycle. As can be seen from table 23, this pattern can actually only be found among childless people, while for parents SWB increases over the life cycle. Likewise, chapter 6 indicated that there are no differences in life satisfaction between parents and non-parents. However, this section demonstrates that there is considerable fluctuation in this comparison over the life cycle. In other words, parents are more satisfied than non-parents during middle age, but less satisfied during young and old age. Interestingly, while parents had higher levels of trust than non-parents overall (as shown in chapter 6), the reverse is true if the comparison is made between parents and non-parents for each of the three age groups respectively. The advantage in trust levels for parents in total observed earlier seems to be due to the large size of the middle aged parents group with their relatively high levels of trust. By contrast, the biggest group of childless people in the sample is among young people, where trust levels are generally lower.

### **Social capital over the life course: age or parenthood effect?**

The findings in the descriptive statistics of chapter 5 and 6 provoked the question whether the patterns of elevated civic engagement and reduced socialising during middle age and among parents were due to an age effect or a parenthood effect. The more nuanced analysis in this chapter is able to provide clues in this regard. It can be seen that formal SC rates peak in middle age for parents, while they increase gradually over the life course for non-parents. Also, these rates are significantly higher among middle aged parents compared to non-parents of that same age. Thus, the peak in civic engagement among middle aged parents does indeed seem to be due to parenthood and we can assume that voluntary work in this life stage is most likely to be related to people's children. As for socialising, there is quite an analogous u-shaped development over the life course for both parents and non-parents, although it is more drastic for the former given the lower rates among young parents. However, all in all the similarity between parents and non-parents, especially regarding the reduction of socialising during middle age, indicates that the development of informal SC over the life course is mainly due to an age effect (or other age-related processes except parenthood) rather than down to parenthood.

**Table 24: Unstandardised OLS estimates, correlates of life satisfaction; social capital by age and parental status**

	1	2
constant	4.145***	4.305***
health	0.421***	0.427***
income	0.138**	0.141**
female	-0.005	-0.018
single ( <i>ref.: married</i> )	-0.418**	-0.427**
separated	-1.009**	-1.019***
divorced	-0.978***	-0.977***
widowed	-0.597**	-0.634**
aged 15-29 parent ( <i>ref.: aged 30-64 parent</i> )	-0.051	0.258
aged 15-29 childless	0.195	-0.669
aged 30-64 childless	-0.239	-0.302
aged 65plus parent	0.309*	-0.818
aged 65plus childless	0.698*	2.345
unemployed	-0.805**	-0.772**
education in years	-0.019	-0.018
religiosity	0.046**	0.043**
trust	0.204***	0.197***
civic engagement	0.064*	0.021
informal socialising	0.162***	0.143***
aged 15-29 parent x trust		-0.151
aged 15-29 childless x trust		0.008
aged 30-64 childless x trust		0.080
aged 65plus parent x trust		0.077
aged 65plus childless x trust		-0.171
aged 15-29 parent x civic engagement		0.061
aged 15-29 childless x civic engagement		0.030
aged 30-64 childless x civic engagement		0.275**
aged 65plus parent x civic engagement		0.006
aged 65plus childless x civic engagement		0.045
aged 15-29 parent x socialising		0.093
aged 15-29 childless x socialising		0.164
aged 30-64 childless x socialising		-0.185
aged 65plus parent x socialising		0.163*
aged 65plus childless x socialising		-0.151
Observations	1768	1768
R square	0.189	0.202
Adjusted R square	0.181	0.186

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

**Table 25: Ordered logit, correlates of life satisfaction; social capital by age and parental status**

	1	2
Life Satisfaction = 0	-2.222***	-2.414***
Life Satisfaction = 1	-1.665***	-1.853***
Life Satisfaction = 2	-1.066***	-1.250***
Life Satisfaction = 3	-0.136	-0.310
Life Satisfaction = 4	0.530*	0.368
Life Satisfaction = 5	1.419***	1.266***
Life Satisfaction = 6	2.021***	1.871***
Life Satisfaction = 7	2.963***	2.820***
Life Satisfaction = 8	4.446***	4.316***
Life Satisfaction = 9	5.664***	5.542***
health	0.449***	0.462***
income	0.108*	0.113*
female	0.039	0.032
single ( <i>ref.: married</i> )	-0.354*	-0.362*
separated	-0.907**	-0.914**
divorced	-0.904***	-0.924***
widowed	-0.550**	-0.590**
aged 15-29 parent ( <i>ref.: aged 30-64 parent</i> )	-0.137	0.738
aged 15-29 childless	0.157	-0.806
aged 30-64 childless	-0.212	-0.124
aged 65plus parent	0.397**	-1.010
aged 65plus childless	0.650*	1.900
unemployed	-0.765**	-0.752**
education in years	-0.025*	-0.024*
religiosity	0.044**	0.044**
trust	0.211***	0.203***
civic engagement	0.079*	0.027
informal socialising	0.148***	0.131**
aged 15-29 parent x trust		-0.201
aged 15-29 childless x trust		0.011
aged 30-64 childless x trust		0.042
aged 65plus parent x trust		0.109
aged 65plus childless x trust		-0.135
aged 15-29 parent x civic engagement		0.057
aged 15-29 childless x civic engagement		0.066
aged 30-64 childless x civic engagement		0.277**
aged 65plus parent x civic engagement		0.030
aged 65plus childless x civic engagement		0.052
aged 15-29 parent x socialising		0.020
aged 15-29 childless x socialising		0.171
aged 30-64 childless x socialising		-0.170
aged 65plus parent x socialising		0.176*
aged 65plus childless x socialising		-0.115
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

Chapter 5 has shown that socialising was less strongly associated with SWB among people in the (lower) middle age group compared to young and old respondents. This section will analyse if such a result concerns parents and non-parents in the same manner. Similarly, chapter 6 has revealed that the relationship between formal SC and SWB was positive for non-parents but not for parents. This section will provide a clearer picture by examining whether these parental status differences in the social context of well-being vary across age groups.

Model 1 in table 24 (OLS) and table 25 (ordered logit) examines only the main effects in this regard. *Ceteris paribus*, old parents and even more so old non-parents are more satisfied with their lives than the reference category (middle aged parents). Hence, the corresponding finding from the descriptive statistics earlier in this section is confirmed even after controlling for a range of other factors.

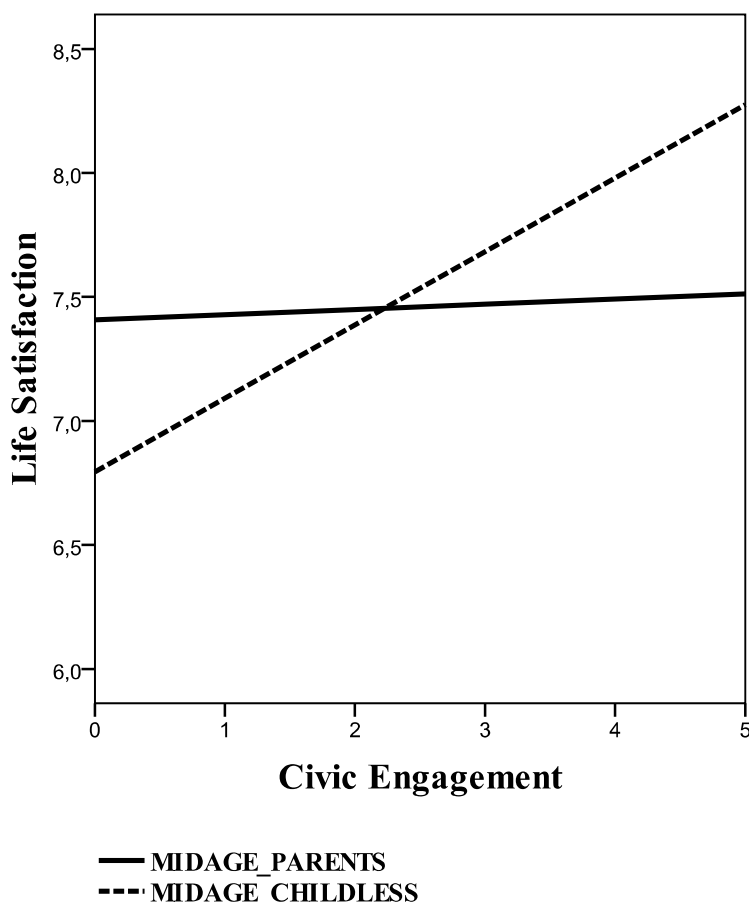


Figure 31: Fitted values for civic engagement and life satisfaction by age and parental status

Model 2 examines differences in the association between SC and SWB by age groups and parental status combined. It turns out that the association between formal SC and SWB is stronger for middle aged non-parents than for parents of that same age group. In fact, for the latter there is rather a non-association between the two concepts studied here, as further illustrated by figure 31. The graph shows that among middle aged childless people civic engagement really does make a difference to life satisfaction, as those middle aged non-parents who are highly engaged are on average approx. 1.5 points more satisfied with their lives than those who have no formal SC. On the other hand, middle aged parents who volunteer a lot are almost not any more satisfied with their lives than those who do not volunteer at all. This finding comes despite the fact that middle aged parents have the highest rates of SC. Thus, it is contrary to the revealed preferences approach. Also, the other groups' interaction terms were not significant.

This result indicates that the previously found difference between parents and non-parents in this regard (see chapter 6) is mainly due to discrepancies within the middle age group. Finally, among middle aged people who have no or little formal SC, the parents are more satisfied with their lives, while among the highly civically engaged in this age group it is the non-parents who have more SWB.

The second main finding to emerge from model 2 is that informal SC is more strongly related to SWB for old parents than for middle aged parents. Figure 32 illustrates that while old parents who do not socialise are less satisfied with their lives than middle aged parents, the reverse is true for those who socialise a lot. No significant differences were found regarding the other subgroups. Thus, the previous result that socialising is more strongly related to SWB for older people than for respondents in the middle age group (chapter 5) seems to be mainly due to the parents in both age groups.

The ordered logit coefficients of the interaction terms in table 25 are identical to the OLS coefficients with regard to direction and significance, and therefore confirm the aforementioned results.

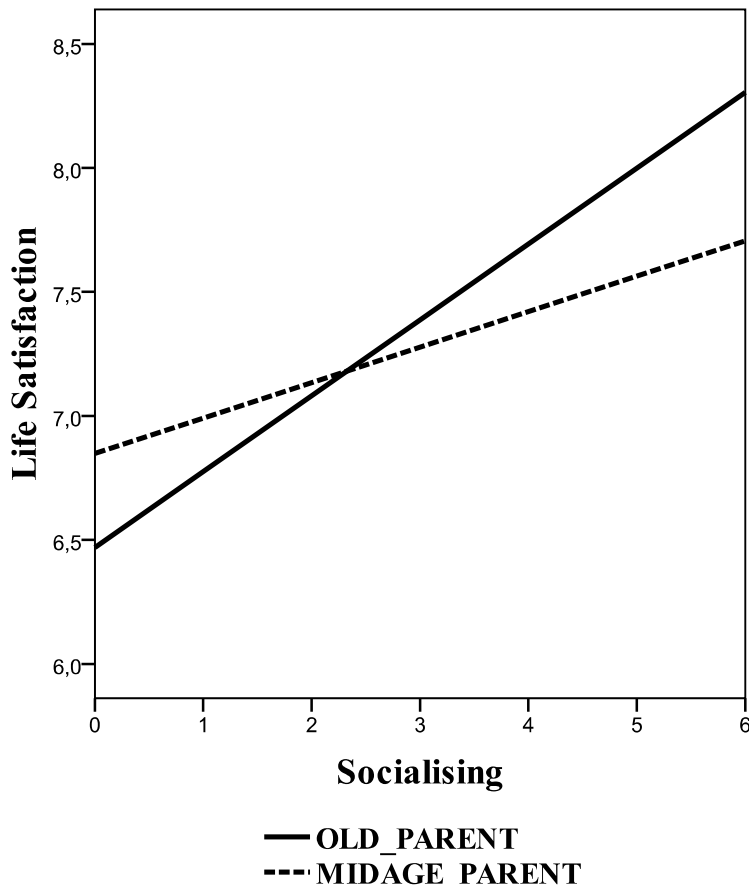


Figure 32: Fitted values for socialising and life satisfaction by age and parental status

### 8.3.4 Conclusions

This section has shed more light on previous findings from chapter 5 and 6. It has revealed that there is a positive relationship between formal SC and SWB for middle aged childless respondents but a non-relationship for middle aged parents. Furthermore, socialising was more strongly related to SWB for old parents compared to middle aged parents. In conclusion, this means that the age-related patterns in the social context of well-being reported in chapter 5 are different for parents and non-parents: While the age-related patterns in the social context of well-being do exist for parents in the two ways reported in this chapter, non-parents are not subject to those strong life cycle variations.

Similarly, this section has found that the differences between parents and non-parents in the social context of well-being are not identical for all age groups. Such differences play out mostly during middle age when societal roles can be most demanding, especially for parents, and are likely to have their strongest effect on the individual. All



in all, the results support hypotheses 33 and 34 to some extent, while no variations in trust were observed (which is what hypothesis 32 would have predicted).

It is particularly noteworthy that for middle aged parents, civic engagement is not related to greater life satisfaction, compared to a strong positive association for middle aged non-parents. This finding supports the point made by role-identity theory that during middle age, civic engagement may be an outcome of one's role as a parent and less related to one's own interests, leading to lower beneficial returns in terms of SWB. Role strain may also have an effect here. As noted earlier, the usual disclaimer about causality of course applies here, too, in a sense that parents during middle age may be more likely to 'have to get involved' regardless of a happy or unhappy personality. In line with the rest of the thesis, though, the focus of interpretation here shall be on a perspective on the returns from SC in terms of SWB.

Last but not least, the shift observed in the descriptive statistics of chapter 5 and 6 from informal to formal SC at the intersection between young and middle age, as well as for parents compared to non-parents, could be illuminated further in this section. This section was able to clarify whether these patterns reflect an age or a parenthood effect. In sum, while the progression of informal SC over the life course seems to be mainly an age effect, the peak in civic engagement during middle age for parents does indeed seem to be due to parenthood. This observation further strengthens the theoretical point that voluntary work in this life stage is most likely to be related to people's children with all the implications of the associated SWB with such activities described earlier. For middle aged non-parents, it seems that civic engagement is more beneficial to SWB than for middle aged parents, possibly because it is more discretionary.

## **8.4 Differences in the relationship between social capital and subjective well-being by marital status and parental status combined**

### **8.4.1 Background**

Chapters 6 and 7 have revealed results regarding parental status groups and marital status, respectively, which are worth following up. As mentioned earlier, the association between civic engagement and SWB was quite strong and positive for non-parents,

while for parents at most a very weak positive one exists. Moreover, parents had higher rates of formal but lower rates of informal SC. Similarly, married respondents were reported to have lower rates of informal SC but higher levels of formal SC than the non-married. Finally, the association between socialising and SWB was stronger for the latter group compared to the former. This section will therefore establish whether:

- g. The patterns in the social context of well-being depending on the respondents' marital status are affected by whether people are parents or non-parents?
- h. The differences between parents and non-parents in the social context of well-being vary depending on whether people are married or non-married?

#### **8.4.2 Hypotheses**

- H<sub>35</sub>: The relationship between SC in terms of *trust* and SWB will vary by marital status and parental status.
- H<sub>36</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by marital status and parental status.
- H<sub>37</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by marital status and parental status.

#### **8.4.3 Analysis and results**

Chapter 6 highlighted that parents' levels of trust and formal SC were higher, while they had less informal SC and approximately equal SWB levels when compared with non-parents. Table 26 reveals some noteworthy additions in this regard. Life satisfaction levels are actually lower among parents if distinguished by marital status than compared to their respective childless married / non-married group. Overall, parents were not much less satisfied with their lives than non-parents in chapter 6. This finding is most probably due to the relatively large group of married parents, who seemed to somewhat outweigh the low SWB levels of non-married parents.

The finding that parents have more trust is also given a further correction here in that it is indeed higher among married parents, but not among non-married parents. Similarly,

the result regarding parents' formal SC is put in perspective here given that a hierarchy of formal SC emerges with married parents having the most, followed by the married childless, non-married parents and non-married childless people. Finally, socialising rates are indeed high among the non-married childless (confirming the findings from chapter 6), but not so much among the married childless, who are overtaken in this regard by non-married parents. Thus, marital status appears to be slightly more powerful in predicting the levels of socialising compared to parental status.

**Table 26: Descriptive statistics, life satisfaction and social capital by marital status and parental status**

Means (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
married parents	7.43*** (1.85)	5.70** (1.56)	1.44*** (1.53)	3.84*** (1.57)	1208
non-married parents	6.66*** (2.32)	5.46 (1.86)	1.18* (1.49)	4.12 (1.60)	429
married childless	7.52* (1.67)	5.72 (1.37)	1.29 (1.38)	3.98 (1.37)	180
non-married childless	7.11 (1.83)	5.46* (1.61)	1.14** (1.41)	4.65*** (1.43)	562
total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. The t-test reflects the distinction dummy variable (e.g. married parents) vs. rest of the sample.

Chapter 7 has found the married to be more satisfied with their lives, have more trust and formal SC, but less informal SC than the non-married. Indeed, life satisfaction and trust levels are higher for the two married subgroups in table 26. This finding confirms the results from chapter 7 and shows that marriage affects these variables regardless of parental status. The same is true for civic engagement, although it is even higher among married parents than among married childless. Finally, the non-married in both parental status categories have more informal SC than the married with non-married childless being the heaviest socialisers. Altogether, without controlling for other factors, non-married parents are by quite some margin the least satisfied with their lives, while SWB is highest among married non-parents.

Tables 27 and 28 display the regression coefficients (OLS in table 27 and ordered logit in table 28) for the dependent variable life satisfaction. As can be seen from model 1 in both tables, *ceteris paribus*, (the reference category) non-married parents are less satisfied with their lives than married parents and married childless (but not non-married childless). Contrary to the findings from the descriptive statistics in table 26, married parents are most satisfied when other factors are controlled for. This finding again shows that marriage affects SWB more than parental status.

Finally, model 2 and figure 33 examine slope heterogeneity in the SC SWB relationship by marital status and parental status. Chapter 6 and 7 have shown that the association between civic engagement and SWB was stronger for non-parents than for parents, and that the relationship between socialising and SWB was stronger for the non-married compared to the married. Combining these two dimensions, model 2 in this chapter illustrates that there are differences for the effect of socialising on SWB. For non-married parents, informal SC has a stronger effect than for married parents and for married childless people. In fact, the SWB of the married childless seems indifferent to socialising, while the slope for non-married parents is very steep. Fixing all control variables at the mean, figure 33 illustrates that a non-married parent who does not socialise reports an average life satisfaction score of only approx. 5.4, while those non-married parents who do socialise daily reach the average life satisfaction levels of married parents (approx. 7.2 which means a remarkable difference of almost 2 points between no socialising and daily socialising). Thus, for this particular group of non-married parents the potential benefits of informal SC are huge. Moreover, the results indicate that the previously reported differences in the association between informal SC and SWB between married and non-married people are mainly due to the parents in both categories.

By contrast to the OLS findings, the ordered logit coefficients in model 2 of table 28 demonstrate no significant differences in slopes regarding informal SC. However, the association between civic engagement and SWB according to this analysis is stronger for the married childless compared to non-married parents. In fact, the same result can be found in the OLS table whereby the p-value was 0.051 and thus not significant according to the 95% confidence level applied throughout this thesis. The finding would mean, however, that for non-married parents formal SC is not positively associated with SWB, while there is a strong positive correlation for married childless people.

**Table 27: Unstandardised OLS estimates, correlates of life satisfaction; social capital by marital status and parental status**

	1	2
constant	3.297***	2.710***
health	0.420***	0.418***
income	0.135**	0.135**
female	-0.005	-0.012
aged 15-29 ( <i>ref.: 30-64</i> )	0.307*	0.311*
aged 65plus	0.432***	0.419***
unemployed	-0.794**	-0.781**
married parents ( <i>ref.: non-married parents</i> )	0.793***	1.626***
married childless	0.629**	1.768*
non-married childless	0.236	0.548
education	-0.019	-0.018
religiosity	0.045**	0.045**
trust	0.209***	0.231***
civic engagement	0.067*	-0.003
socialising	0.164***	0.298***
married parent x trust		-0.037
married childless x trust		-0.041
non-married childless x trust		-0.003
married parent x civic engagement		0.045
married childless x civic engagement		0.246
non-married childless x civic engagement		0.158
married parent x socialising		-0.166*
married childless x socialising		-0.301*
non-married childless x socialising		-0.119
Observations	1768	1768
R square	0.183	0.189
Adjusted R square	0.177	0.179

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

**Table 28: Ordered logit, correlates of life satisfaction; social capital by marital status and parental status**

	1	2
Life Satisfaction = 0	-1.449***	-1.001*
Life Satisfaction = 1	-0.892**	-0.441
Life Satisfaction = 2	-0.295	0.160
Life Satisfaction = 3	0.629*	1.093**
Life Satisfaction = 4	1.289***	1.760***
Life Satisfaction = 5	2.172***	2.649***
Life Satisfaction = 6	2.772***	3.251***
Life Satisfaction = 7	3.710***	4.192***
Life Satisfaction = 8	5.189***	5.673***
Life Satisfaction = 9	6.406***	6.893***
health	0.444***	0.444***
income	0.105*	0.104*
female	0.035	0.034
aged 15-29 ( <i>ref.: 30-64</i> )	0.248	0.256
aged 65plus	0.491***	0.481***
unemployed	-0.739**	-0.715**
married parents ( <i>ref.: non-married parents</i> )	0.718***	1.371**
married childless	0.580**	1.625*
non-married childless	0.237	0.425
education	-0.026*	-0.025*
religiosity	0.043**	0.041**
trust	0.216***	0.241***
civic engagement	0.083**	0.022
socialising	0.151***	0.250***
married parent x trust		-0.033
married childless x trust		-0.075
non-married childless x trust		-0.011
married parent x civic engagement		0.032
married childless x civic engagement		0.272*
non-married childless x civic engagement		0.136
married parent x socialising		-0.122
married childless x socialising		-0.238
non-married childless x socialising		-0.073
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

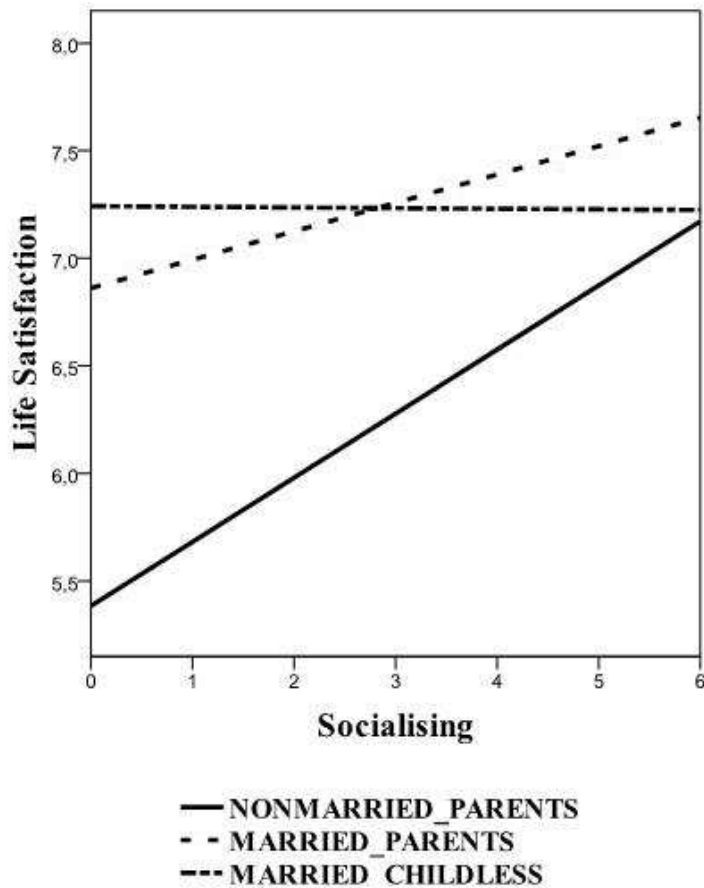


Figure 33: Fitted values for socialising and life satisfaction by marital status and parental status

#### 8.4.4 Conclusions

This section took as its starting point the findings from chapter 6 and 7 on differences in the social context of well-being by parental status groups and marital status, respectively. It was reported earlier that formal SC and SWB were strongly related for non-parents but not for parents. At the same time, informal SC was more strongly related to SWB for non-married than for married people. Consequently, this section shed more light on the latter patterns regarding marital status, investigating if they are affected by whether people are parents or non-parents, while also examining if the differences between parents and non-parents vary depending on whether people are married or non-married.

As a result, further differences in the relationship between socialising and SWB can be noted – thus supporting hypothesis 37. In particular, non-married parents were found to have a very strong positive association in this regard, while no such relationship exists for married childless people. That is to say that the earlier finding about the social context of non-married people can be elaborated by saying that, especially if non-

married people have children, then the importance of socialising for SWB is high. In fact, the difference between a non-socialising, non-married parent and one who socialises daily was found to be almost 2 points on the 11-point life satisfaction scale. In other words, the former are quite miserable when not having any informal SC. By contrast, the life satisfaction of married people without children does not seem to be affected at all by whether they socialise or not. Other SC variables tested were not found to be significant.

These findings seem puzzling to a certain extent and they go against the stereotype of a married but childless couple which seeks to socialise a lot given their freedom to do so without having to find babysitters etc. In fact, the descriptive statistics have shown that this group has the second lowest levels of socialising in the comparison of this section. Thus, the married socialise less regardless of whether they have children, although the gap to the non-married is larger if they do.

The other remarkable result concerns the strong slope for non-married parents, although this result is more in line with theoretical reasoning and intuition. Informal SC can be viewed as a good indicator for the strength of someone's social support network. These networks are the more important for non-married parents, who are likely to benefit more from outside support with regard to child-rearing. Sundeen (1990: 483) noted in this context that "single parents with preschool children have neither the social supports of married parents to share roles, nor the relative freedom enjoyed by single persons with no children". Hence, those without such support are much less satisfied with their lives than those with. Of course, for this conclusion to be fully robust more in-depth research into this phenomenon is necessary, such as targeted surveys about people's interaction partners, child-rearing arrangements, etc. Such investigations are beyond the scope of this more comparatively oriented thesis. Nonetheless, the potential for this interesting phenomenon to be examined further shall be emphasised.



## **8.5 Differences in the relationship between social capital and subjective well-being by age and marital status combined**

### **8.5.1 Background**

As stated earlier, some promising differences in the social context of well-being were highlighted in the data analyses on age in chapter 5 and on marital status in chapter 7. For example, socialising was less strongly associated with SWB for people in the (lower) middle age group than for young and old respondents. Similarly, such informal SC was more strongly correlated with SWB for non-married compared to married people. These results demand a more precise analysis of both dimensions combined in order to investigate whether:

- i. The patterns in the social context of well-being by marital status are different for various age groups?
- j. The age-related patterns in the social context of well-being vary between married and non-married people?

### **8.5.2 Hypotheses**

H<sub>38</sub>: The relationship between SC in terms of *trust* and SWB will vary by marital status and age.

H<sub>39</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by marital status and age.

H<sub>40</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by marital status and age.

### **8.5.3 Analysis and results**

Table 29 contains information of the descriptive levels of SC and SWB by age and marital status. It was revealed in the descriptive statistics of chapter 5 that - without controlling for other factors - life satisfaction was lowest during middle age, that trust increases with age, and that there is a sizeable switch from informal to formal SC at the intersection of young and middle age. Table 29 shows that the u-shaped bivariate relationship between age and life satisfaction is actually only to be found among non-married people. While for married people SWB increases throughout the life course,

reaching similar levels in middle as well as in old age, the non-married experience quite low SWB during middle age.

**Table 29: Descriptive statistics, life satisfaction and social capital by age and marital status**

Mean (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
aged 15-29 married	7.29 (1.55)	5.48 (1.57)	0.90** (1.33)	4.04 (1.61)	92
aged 15-29 non-married	7.24 (1.68)	5.34*** (1.50)	1.06*** (1.31)	4.95*** (1.25)	416
age 30-64 married	7.44*** (1.78)	5.66 (1.51)	1.49*** (1.48)	3.77*** (1.51)	992
aged 30-64 non-married	6.34*** (2.31)	5.36** (1.82)	1.19 (1.46)	3.93* (1.61)	372
aged 65plus married	7.46* (2.07)	5.92** (1.65)	1.39 (1.66)	4.07 (1.60)	278
aged 65plus non-married	7.35 (2.08)	5.89* (1.90)	1.27 (1.67)	4.22 (1.57)	196
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. The t-test reflects the distinction dummy variable (e.g. old married) vs. rest of the sample.

Trust increases with age for married and non-married people, albeit from a higher baseline level for the former. The previously observed increase in civic engagement from young to middle age is quite sizeable for the married (who start from very low levels in young age and reach very high levels in middle age) and smaller for the non-married. In fact, civic engagement actually increases throughout the life course for the non-married, while for the married it peaks during middle age. The bivariate relationship between socialising and age is u-shaped for both married and non-married, although the differences between age groups are bigger for the latter who start from very high levels in young age.

In a similar fashion, the analysis in chapter 7 found that the married are more satisfied with their lives, have more trust and formal SC, but socialise less than the non-married.

Table 29 allows for an investigation of whether these findings hold across all age groups. Interestingly, the differences in life satisfaction by marital status are actually smallest in young age and biggest during middle age. Differences in trust levels between married and non-married people are more pronounced during young and middle age, while they almost disappear in old age. The previously found advantage in terms of formal SC for the married is actually due to a large gap during middle age, followed by old age. Among young people, by contrast, it is the non-married who have more formal SC. Finally, the married socialise less than the non-married consistently throughout all age groups. However, the gap between them is by far at its largest during young age, while it narrows considerably especially during middle but also during old age. Overall, life satisfaction is highest among old married people and lowest among middle aged non-married people, without controlling for other variables.

Chapters 5 and 7 have shown that socialising is less strongly associated with SWB among the middle age group and the married. This section combines both dimensions, and tables 30 and 31 contain the relevant regression coefficients (OLS in table 30 and ordered logit in table 31). *Ceteris paribus*, middle aged married people (the reference category) are more satisfied with their lives than middle aged non-married as shown by model 1 of both tables. While this confirms the general pattern of higher life satisfaction among the married and the lower SWB scores reported in the descriptive statistics in this section, no other significant age and marital status subgroup differences in this regard were found.

Model 2 examines slope heterogeneity in the SC SWB relationship across the relevant subgroups studied in this section. Table 30 indicates that the relationship between informal SC and SWB is stronger for young non-married and old married people compared to middle aged married people. Fixing all control variables at their mean, as figure 34 illustrates, young non-married people who do not socialise report the lowest life satisfaction score in all plots examined in this thesis (5.44). However, socialising is so strongly related to their SWB that they reach the average life satisfaction levels of middle aged married people at increased levels of informal SC.

**Table 30: Unstandardised OLS estimates, correlates of life satisfaction; social capital by age and marital status**

	1	2
constant	4.220***	4.704***
health	0.416***	0.415***
income	0.126**	0.120**
female	-0.030	-0.032
aged 15-29 married ( <i>ref.: age 30-64 married</i> )	-0.118	0.808
aged 15-29 non-married	-0.288	-1.764**
aged 30-64 non-married	-0.990***	-1.792***
aged 65plus married	0.126	-1.567*
aged 65plus non-married	-0.027	-0.113
unemployed	-0.759**	-0.759**
education in years	-0.016	-0.017
parent	-0.056	-0.057
religiosity	0.043**	0.045**
trust	0.208***	0.171***
civic engagement	0.067*	0.042
informal socialising	0.161***	0.101*
aged 15-29 married x trust		-0.085
aged 15-29 non-married x trust		0.024
aged 30-64 non-married x trust		0.092
aged 65plus married x trust		0.161
aged 65plus non-married x trust		-0.018
aged 15-29 married x civic engagement		0.136
aged 15-29 non-married x civic engagement		-0.014
aged 30-64 non-married x civic engagement		0.113
aged 65plus married x civic engagement		0.019
aged 65plus non-married x civic engagement		-0.022
aged 15-29 married x socialising		-0.137
aged 15-29 non-married x socialising		0.287**
aged 30-64 non-married x socialising		0.041
aged 65plus married x socialising		0.178*
aged 65plus non-married x socialising		0.058
Observations	1768	1768
R square	0.190	0.201
Adjusted R square	0.183	0.187

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

**Table 31: Ordered logit, correlates of life satisfaction; social capital by age and marital status**

	1	2
Life Satisfaction = 0	-2.285***	-2.771***
Life Satisfaction = 1	-1.728***	-2.205***
Life Satisfaction = 2	-1.128**	-1.599***
Life Satisfaction = 3	-0.197	-0.659
Life Satisfaction = 4	0.469	0.014
Life Satisfaction = 5	1.358***	0.909*
Life Satisfaction = 6	1.961***	1.517***
Life Satisfaction = 7	2.904***	2.469***
Life Satisfaction = 8	4.385***	3.960***
Life Satisfaction = 9	5.604***	5.182***
health	0.443***	0.450***
income	0.099*	0.096*
female	0.014	0.011
aged 15-29 married ( <i>ref.: age 30-64 married</i> )	-0.215	0.722
aged 15-29 non-married	-0.235	-1.642*
aged 30-64 non-married	-0.889***	-1.577**
aged 65plus married	0.255	-1.618*
aged 65plus non-married	0.028	-0.248
unemployed	-0.719**	-0.710**
education in years	-0.023	-0.024*
parent	-0.052	-0.049
religiosity	0.043**	0.046**
trust	0.215***	0.176***
civic engagement	0.082**	0.049
informal socialising	0.148***	0.102*
aged 15-29 married x trust		-0.081
aged 15-29 non-married x trust		0.024
aged 30-64 non-married x trust		0.092
aged 65plus married x trust		0.182*
aged 65plus non-married x trust		0.018
aged 15-29 married x civic engagement		0.201
aged 15-29 non-married x civic engagement		0.000
aged 30-64 non-married x civic engagement		0.113
aged 65plus married x civic engagement		0.057
aged 65plus non-married x civic engagement		-0.021
aged 15-29 married x socialising		-0.165
aged 15-29 non-married x socialising		0.264**
aged 30-64 non-married x socialising		0.009
aged 65plus married x socialising		0.175
aged 65plus non-married x socialising		0.052
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

These results mean that the difference reported in chapter 5 regarding the relationship between informal SC and SWB by age groups (with the middle age category showing the weakest association) is actually mainly due to a stronger relationship between the independent and dependent variable among young non-married and old married people versus the weaker association for middle aged married people. Similarly, the weaker relationship between socialising and SWB for the married group observed in chapter 7 is mainly due to a discrepancy between middle aged married vs. young non-married.

Moreover, it can be seen from these results that under conditions of heavy socialising, being married or not makes almost no difference to life satisfaction among these three subgroups. Under conditions of no socialising, however, there are huge discrepancies with the middle aged married being most satisfied with life, followed by the old married and finally the young non-married being rather dissatisfied with life.

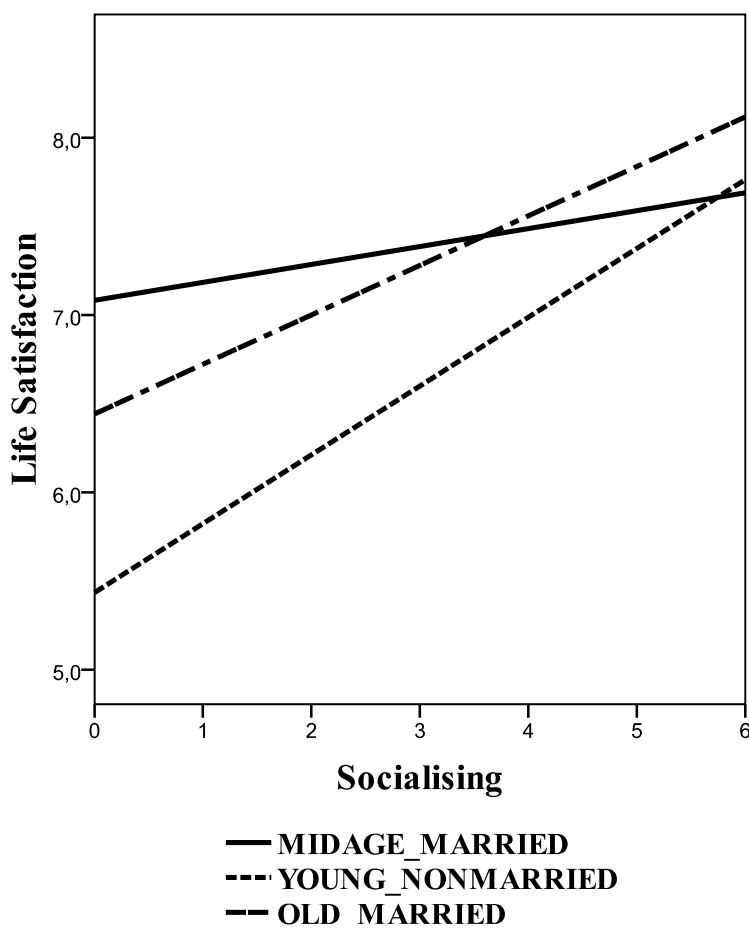


Figure 34: Fitted values for socialising and life satisfaction by age and marital status

The corresponding model 2 for the ordered logit analysis in table 31 confirms the significant slope difference for socialising and SWB between the middle aged married and young non-married. However, the coefficient for socialising and old married people is not significant in this table, while the model does indicate that trust is more strongly associated with SWB for this subgroup compared to the reference category middle aged married.

#### **8.5.4 Conclusions**

The aim of this section was to provide more detail on two previous results from chapters 5 and 7. People in the (lower) middle age group showed a weaker association between informal SC and SWB than for young and old respondents. Similarly, socialising was more strongly related to SWB for non-married compared to married people. Hence, it was interesting to examine if the findings on marital status are affected by an age distinction, and if the life cycle patterns on the social context of well-being were at all different for married and non-married people.

It turns out that the more nuanced analysis in this section does lend support to hypothesis 40. Young non-married people show in fact the steepest slope in the relationship between informal SC and SWB. This amplifies both findings in this regard from chapters 5 and 7 where young people and non-married people, respectively, showed steep slopes. By contrast, young *married*, as well as *old* and *middle aged* non-married people do not differ significantly from the reference category, middle aged married, which has the weakest association between SC and SWB. Thus, the life cycle variations observed earlier in this thesis are more pronounced for non-married respondents, in the sense that the young non-married stand out in particular from the rest. Similarly, the marital status differences noted in chapter 7 are at their most pronounced at a young age.

The findings provoke the question of how far the socialising experiences themselves differ between, for example, young non-married and middle aged married people. Surely, they take place in a different life course context which affects the role they play for people's SWB. Further research could look at who people in these situations socialise with in particular, in order to assess the precise mechanism by which informal SC for young non-married people is perhaps of a superior quality in terms of SWB, or

simply of more paramount importance in those formative years, especially if one is not married.

No differences were noted with regard to trust and civic engagement when sub-distinctions by marital status and age were examined, with the exception of a significant interaction term for trust among older, married people in the ordered logit regression. Otherwise, trust seems once more to be of similar importance for all subgroups analysed in this section. Finally, the previously found distinctions in the case of formal SC do not show different patterns when these second stage subgroup distinctions are introduced.

## **8.6 Differences in the relationship between social capital and subjective well-being by gender and marital status combined**

### **8.6.1 Background**

As outlined earlier, chapter 4 (on gender) and chapter 7 (on marital status) have produced some noteworthy results regarding slope heterogeneity in the SC SWB relationship. The association between informal SC and SWB was stronger for women, as well as for non-married people. Also, there were gender differences in the relationship between formal SC and SWB. To take these findings further, the following section will for one last time combine two subgroups, notably distinguished by marital status and gender, in order to examine whether:

- k. The gendered patterns in the social context of well-being are different for married and non-married people?
- l. The differences in the social context of well-being by marital status vary between men and women?

### **8.6.2 Hypotheses**

- H<sub>41</sub>: The relationship between SC in terms of *trust* and SWB will vary by marital status and gender.
- H<sub>42</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary by marital status and gender.
- H<sub>43</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary by marital status and gender.



### 8.6.3 Analysis and results

The descriptive statistics in chapter 7 pointed out that the married are more satisfied with their lives, have more trust and formal SC, but less informal SC than the non-married. Table 32 in this section indicates that the SWB difference holds for both genders with a larger gap between married vs. non-married among men. Likewise, for both genders the married have more trust and formal SC, whereas the non-married men have the least in both cases. Also, informal SC is higher among the non-married of both genders, and it is the non-married men who socialise the most.

**Table 32: Descriptive statistics, life satisfaction and social capital by gender and marital status**

Means (Std. dev.)	Life Satisfaction	Trust	Civic Engagement	Socialising	N
married male	7.45*** (1.79)	5.69 (1.56)	1.41* (1.51)	3.83*** (1.54)	682
married female	7.43** (1.87)	5.72* (1.52)	1.44** (1.52)	3.88*** (1.55)	708
non-married male	6.88*** (2.03)	5.41* (1.74)	0.98*** (1.32)	4.46*** (1.56)	449
non-married female	6.94*** (2.10)	5.49 (1.71)	1.30*** (1.53)	4.38 (1.51)	542
Total	7.23 (1.95)	5.60 (1.62)	1.31 (1.49)	4.09 (1.56)	2394

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. The t-test reflects the distinction dummy variable (e.g. married male) vs. rest of the sample.

Similarly, the descriptive statistics in chapter 4 revealed that men's and women's levels of SC and SWB are fairly similar, with the exception of higher civic engagement rates among women. Table 32 is able to highlight some interesting gender differences though, once marital status is factored in. For instance, while life satisfaction is similar among men and women in the 'married' category, non-married men seem to be slightly less satisfied than non-married women. The same pattern can be found for trust and especially civic engagement. Indeed, the remarkably low levels of formal SC among non-married men must be responsible for the gender difference in civic engagement that was observed in chapter 4. Among the married, hardly any gender difference is to be found as married men are almost equally involved as married women. Finally, non-

married men have the highest rates of informal SC and socialise slightly more than non-married women, while there are almost no gender differences among the married in this respect. Thus, non-married men seem to have a remarkable preference for informal over formal SC.

**Table 33: Unstandardised OLS estimates, correlates of life satisfaction; social capital by gender and marital status**

	1	2
constant	4.336***	4.799***
health	0.416***	0.413***
income	0.104*	0.103*
married female ( <i>ref.: married male</i> )	-0.097	-0.422
non-married male	-0.715***	-1.619**
non-married female	-0.626***	-1.624**
unemployed	-0.879***	-0.898***
education	-0.025*	-0.024*
parent	-0.138	-0.129
religiosity	0.051**	0.054***
trust	0.216***	0.190***
civic engagement	0.063*	0.121*
socialising	0.182***	0.074
married female x trust		0.007
non-married male x trust		0.071
non-married female x trust		0.016
married female x civic engagement		-0.125
non-married male x civic engagement		-0.063
non-married female x civic engagement		-0.056
married female x socialising		0.121
non-married male x socialising		0.153
non-married female x socialising		0.241*
Observations	1768	1768
R square	0.175	0.181
Adjusted R square	0.169	0.171

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

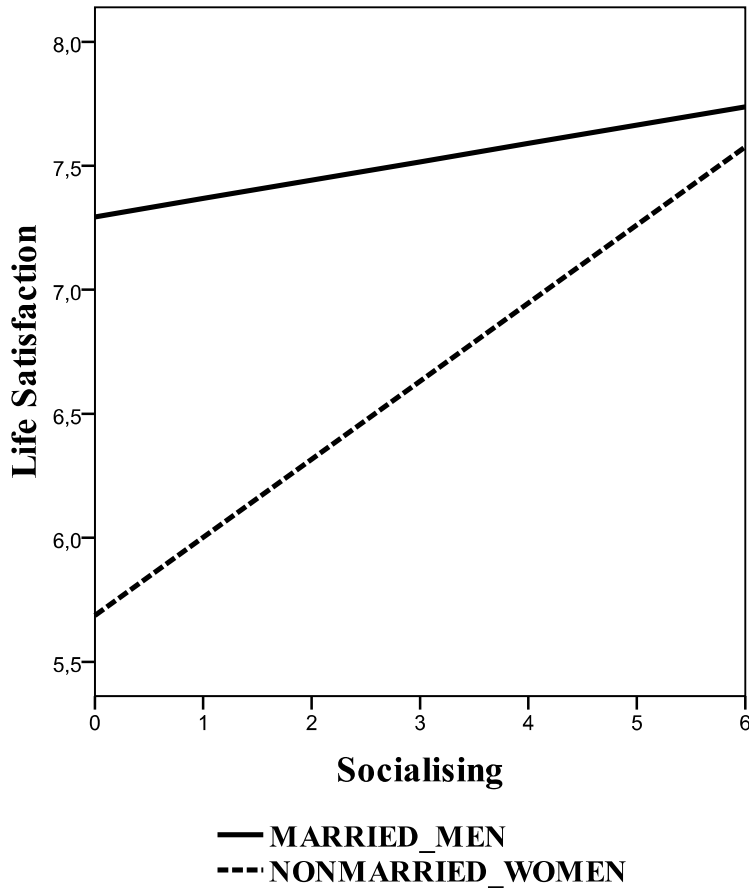
**Table 34: Ordered logit, correlates of life satisfaction; social capital by gender and marital status**

	1	2
Life Satisfaction = 0	-2.407***	-2.767***
Life Satisfaction = 1	-1.849***	-2.206***
Life Satisfaction = 2	-1.254***	-1.608***
Life Satisfaction = 3	-0.338	-0.686
Life Satisfaction = 4	0.315	-0.028
Life Satisfaction = 5	1.190***	0.854*
Life Satisfaction = 6	1.784***	1.454***
Life Satisfaction = 7	2.713***	2.389***
Life Satisfaction = 8	4.181***	3.857***
Life Satisfaction = 9	5.398***	5.072***
health	0.423***	0.424***
income	0.069	0.070
married female ( <i>ref.: married male</i> )	-0.047	-0.262
non-married male	-0.622***	-1.365*
non-married female	-0.518***	-1.311**
unemployed	-0.829**	-0.836**
education	-0.031**	-0.031**
parent	-0.123	-0.111
religiosity	0.052**	0.055***
trust	0.223***	0.204***
civic engagement	0.080*	0.141**
socialising	0.169***	0.078
married female x trust		-0.001
non-married male x trust		0.056
non-married female x trust		0.014
married female x civic engagement		-0.132
non-married male x civic engagement		-0.070
non-married female x civic engagement		-0.058
married female x socialising		0.110
non-married male x socialising		0.136
non-married female x socialising		0.196*
Observations	1768	1768

\*\*\* indicates significance at  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

Tables 33 (OLS) and 34 (ordered logit) display coefficients in order to examine slope heterogeneity in the relationship between SC and SWB across the four subgroups studied here. Earlier in this thesis it was reported that informal SC and SWB were more strongly correlated for women (chapter 4), as well as for non-married people (chapter 7). Also, the association between formal SC and SWB differed between the sexes. Model 1 in both tables 33 and 34 illustrates how a combination of marital status and gender subgroups affects SWB while controlling for other factors. *Ceteris paribus*, the

reference category married men are more satisfied with their lives than non-married men and non-married women, but not more than married women. Thus, the lower levels of life satisfaction for the non-married can be found for both genders here.



**Figure 35: Fitted values for socialising and life satisfaction by gender and marital status**

Furthermore, model 2 shows that the relationship between informal SC and SWB is stronger for non-married women (but not significantly so for non-married men or married women) compared to the reference category married men. The difference in SWB between those married men who socialise a lot and those who do not is not large. By contrast, non-married women who do not socialise much are quite dissatisfied with their lives. But those who have a lot of such informal SC reach almost the relatively higher SWB levels of married men. In other words, among heavy socialisers, there are only small differences between non-married women and married men. But among those who never socialise, married men are approx. 1.5 points more satisfied with their lives than non-married women.

It shall be underlined that there are no significant slope differences between the reference category married men and either married women and non-married men. It is only when both categories (marital status and gender) differ in combination from the reference category that a significant interaction term can be found here. Thus, the previously found differences in the informal SC SWB relationship between married vs. non-married (chapter 7) are likely to be mainly due to the larger differences in this respect between married *men* and non-married *women*. Similarly, the gender difference found in chapter 4 regarding informal SC and SWB is most probably based on larger differences between *married* men and *non-married* women. Finally, the gender differences regarding formal SC were not found again here.<sup>54</sup> The ordered logit results are in line with the OLS findings in terms of significance and direction of the coefficients.

#### **8.6.4 Conclusions**

Earlier findings in chapter 4 and 7 highlighted noteworthy patterns with regard to gender differences and marital status differences in the relationship between SC and SWB. Combining both these dimensions, this section investigated how far variations between men and women are affected by marital status, as well as how the marital status distinction plays out differently for men and women.

While finding no evidence regarding trust and formal SC differences (as hypotheses 41 and 42 had proposed), the analyses in this section support hypothesis 43 on informal SC. A significant difference between married men (who show a rather weak association) and non-married women (whose slope is rather steep) reveals some interesting additions to earlier findings. In fact, combining the subgroup dimensions supports previously found gender differences in so far as the gender dimension turns out to amplify marital status differences and vice versa. For non-married women, socialising seems to be of particular importance, while this is not so much the case for non-married men and married women, whose slope was not significantly different from the reference category, married men. The latter turned out to be the group with the smallest delta in life satisfaction between heavy socialisers and no-socialisers.

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<sup>54</sup> Also, an additional analysis featuring squared terms in order to examine curvilinearity did not yield any significant results.

The follow-up question would of course be why the relationship is so strong for non-married women. It seems that theoretical mechanisms outlined in chapter 4 and 7 come together in this case, resulting in the finding of a remarkably steep slope. More precisely, socialisation differences with women emphasising relationships more than men go together with the greater marginal utility of external SC for people who do not have a spouse.

## **9. Conclusions**

### **9.1 Revisiting the objectives of this dissertation**

This dissertation hopes to make a distinct contribution to the knowledge on the social context of SWB. It aims to do so by addressing important challenges in the very timely research on SC and SWB (see introduction chapter). The key objectives resulting from present shortcomings in the research literature are: 1) to examine slope heterogeneity and thus perform a more nuanced analysis of the social context of well-being that overcomes the widespread homogenisation of entire national populations; 2) to integrate existing and develop new, much-needed theoretical frameworks in the empirically-oriented study of happiness; 3) to advance the debate on the positive or negative nature and outcomes of SC; 4) to generate new insights into the somewhat unclear relationships between gender and parenthood with SWB; 5) and as a result to contribute to the on-going development of a Sociology of Happiness.

To achieve those aims, this dissertation first of all gave a comprehensive and critical assessment of the research literature (chapter 2). Out of the identified shortcomings, the particular approach of this thesis was developed and outlined (chapter 2.4 and 3). A range of original findings were consequently discovered in the empirical part using data from the UK (chapters 4-8).

The following chapter will review the findings with a particular focus on how they a) have achieved the aforementioned five objectives of this dissertation, b) have thus contributed to meeting the key challenges in current research that were linked to these objectives, and c) have therefore advanced the study of the relationship between SC and SWB.

#### **9.1.1 *Examining slope heterogeneity***

The main objective of this dissertation was to perform a more nuanced analysis of the social context of well-being that overcomes the homogenisation of entire national populations, which was identified as common in the literature. The review of existing studies revisited a range of correlates of SWB that many years of important research have brought to light. In particular, chapter 2 provided an overview of the current state-

of-the-art in research on SC and SWB. Various theoretical approaches, from stress buffering models to Durkheim's concept of anomie, that exist in parallel were drawn together and discussed to show that this research field has indeed a solid foundation and a rich past.

Crucially, that literature review also highlighted the challenges that this research area faces at present. Having established 1) What is SWB and what influences it?, 2) What is SC?, and 3) How is SC associated with SWB?, the dissertation consequently turned towards the future of this field of study by outlining 4) What are the gaps in the existing literature and why do they need to be filled? It became apparent that almost all studies have strived to find a unitary 'happiness formula' consisting of a number of variables for entire national, sometimes even international samples. As important as these studies are, especially since they were ground-breaking for their time, chapter 2.4 highlighted the increasing demand for more detailed analyses in the years to come. In particular, a number of scholars have emphasised the importance of looking at different societal subgroups when searching for the correlates of happiness.

This dissertation therefore strives to go beyond the average case in examining the effect of an explanatory variable on a response variable. Following an extensive literature review and a consultation process that involved presentations and feedback at academic conferences, as well as talking to experts from a number of disciplines, it was decided that this dissertation should look at gender, age, parental status, and marital status in this regard. Rooted in sociological theory, a range of hypotheses were developed to analyse slope heterogeneity in the association between SC and SWB. During the empirical analyses the following hypotheses did / did not receive empirical support.

**The following hypotheses *did* receive some empirical support:**

- H<sub>1</sub>: SWB is higher in young and old age, while it is lower in the middle age groups.  
[N.B.: The coefficient for young people was not significant.]
- H<sub>2</sub>: The higher someone's income the more satisfied with life he / she will be.
- H<sub>4</sub>: The healthier someone is the higher his / her SWB will be.
- H<sub>5</sub>: SWB levels are higher for those who are married compared to those who are divorced, widowed or separated.
- H<sub>6</sub>: People who are unemployed will have a lower SWB.
- H<sub>7</sub>: The more religious someone is the more satisfied with life he / she will be.



- H<sub>8</sub>: The more someone trusts other people, the higher his / her SWB will be.
- H<sub>9</sub>: The more someone is involved in associations the higher his / her SWB will be.
- H<sub>10</sub>: The more someone socialises, the higher his / her SWB will be.
- H<sub>12</sub>: The relationship between SC in terms of civic engagement and SWB will vary between men and women.
- H<sub>13</sub>: The relationship between SC in terms of informal socialising and SWB will vary between men and women. [N.B.: Only OLS.]
- H<sub>14</sub>: The relationship between SC in terms of trust and SWB will vary by age (with a smaller effect among the middle age groups). [N.B.: Only ordered logit.]
- H<sub>15</sub>: The relationship between SC in terms of civic engagement and SWB will vary by age (with a smaller effect among the middle age groups).
- H<sub>16</sub>: The relationship between SC in terms of informal socialising and SWB will vary by age (with a smaller effect among the middle age groups).
- H<sub>18</sub>: The relationship between SC in terms of civic engagement and SWB will vary between parents and childless people.
- H<sub>20</sub>: The relationship between SC in terms of *trust* and SWB will vary between parents of under 16s, parents of 16s and older, and childless people.
- H<sub>25</sub>: The relationship between SC in terms of informal socialising and SWB will vary by marital status. [N.B.: Only OLS.]
- H<sub>27</sub>: The relationship between SC in terms of civic engagement and SWB will vary by gender and parental status (i.e. between mothers, fathers, childless women and childless men).
- H<sub>31</sub>: The relationship between SC in terms of informal socialising and SWB will vary by gender and age.
- H<sub>33</sub>: The relationship between SC in terms of civic engagement and SWB will vary by age and parental status.
- H<sub>34</sub>: The relationship between SC in terms of informal socialising and SWB will vary by age and parental status.
- H<sub>36</sub>: The relationship between SC in terms of civic engagement and SWB will vary by marital status and parental status. [N.B.: Only ordered logit.]
- H<sub>37</sub>: The relationship between SC in terms of informal socialising and SWB will vary by marital status and parental status. [N.B.: OLS.]
- H<sub>38</sub>: The relationship between SC in terms of trust and SWB will vary by marital status and age. [N.B.: Only ordered logit.]

- H<sub>40</sub>: The relationship between SC in terms of informal socialising and SWB will vary by marital status and age.
- H<sub>43</sub>: The relationship between SC in terms of informal socialising and SWB will vary by marital status and gender.

**The following hypotheses did *not* receive empirical support:**

- H<sub>3</sub>: The SWB scores of women will be higher than those of men.
- H<sub>11</sub>: The relationship between SC in terms of trust and SWB will vary between men and women.
- H<sub>17</sub>: The relationship between SC in terms of trust and SWB will vary between parents and childless people.
- H<sub>19</sub>: The relationship between SC in terms of informal socialising and SWB will vary between parents and childless people.
- H<sub>21</sub>: The relationship between SC in terms of *civic engagement* and SWB will vary between parents of under 16s, parents of 16s and older, and childless people.
- H<sub>22</sub>: The relationship between SC in terms of *informal socialising* and SWB will vary between parents of under 16s, parents of 16s and older, and childless people.
- H<sub>23</sub>: The relationship between SC in terms of trust and SWB will vary by marital status.
- H<sub>24</sub>: The relationship between SC in terms of civic engagement and SWB will vary by marital status.
- H<sub>26</sub>: The relationship between SC in terms of trust and SWB will vary by gender and parental status (i.e. between mothers, fathers, childless women and childless men).
- H<sub>28</sub>: The relationship between SC in terms of informal socialising and SWB will vary by gender and parental status (i.e. between mothers, fathers, childless women and childless men).
- H<sub>29</sub>: The relationship between SC in terms of trust and SWB will vary by gender and age.
- H<sub>30</sub>: The relationship between SC in terms of civic engagement and SWB will vary by gender and age.
- H<sub>32</sub>: The relationship between SC in terms of trust and SWB will vary by age and parental status.

- H<sub>35</sub>: The relationship between SC in terms of trust and SWB will vary by marital status and parental status.
- H<sub>39</sub>: The relationship between SC in terms of civic engagement and SWB will vary by marital status and age.
- H<sub>41</sub>: The relationship between SC in terms of trust and SWB will vary by marital status and gender.
- H<sub>42</sub>: The relationship between SC in terms of civic engagement and SWB will vary by marital status and gender.

It can be seen from the hypotheses that considerable slope heterogeneity was identified during the regression analyses using UK data. An even more detailed picture emerges when looking at the b (slope) coefficients for SC and SWB across the various subgroups studied in the empirical chapters. Tables 35 to 37 provide such a concise overview for trust, civic engagement, and socialising.

For example, chapter 8.5 was able to show that there is a particularly strong association between socialising and SWB for young, non-married people. In fact, the difference between someone from that group who does not socialise at all and someone who does so on a daily basis with regard to their life satisfaction level is, *ceteris paribus*, 2.33 on the 11 point scale. The income compensating differential, i.e. the amount of income necessary to match that figure based on the corresponding income coefficient, would be £19,400 per month. By contrast, according to the same regression analysis, the respective values for a respondent from the middle age group who is married would be only 0.606 points difference between a no-socialiser and a heavy socialiser, and an income compensating differential of £5,050.

Similarly, chapter 8.1 demonstrated stark contrasts with regard to civic engagement between childless women and mothers. While there was a very strong positive association with SWB for the first group, for the latter there was even a negative one. In other words, the difference between a childless woman who never volunteers and one who does so at least weekly equals, *ceteris paribus*, an increase of 1.075 points on the life satisfaction scale – equivalent to £8,144 monthly. For mothers, the respective figures would mean a *decrease* in life satisfaction by 0.115, which corresponds to an amount of £870 per month *less*.

**Table 35: List of b coefficients for trust (OLS)**

Strongest positive relationship between trust and SWB  ↑ . . . medium . . . ↓ Weakest positive relationship between trust and SWB	aged 65plus married	0.332
	aged 65plus male	0.294
	aged 30-64 childless	0.277
	aged 65plus parent	0.274
	childless men	0.272
	aged 30-64 non-married	0.263
	parent of 16s and older	0.262
	non-married male	0.261
	aged 45-64	0.257
	aged 65plus	0.244
	non-married parents	0.231***
	aged 15-29 male	0.23
	non-married childless	0.228
	non-married	0.227***
	aged 30-64 female	0.217
	non-married female	0.206
	aged 15-29 childless	0.205
	mothers	0.216
	childless	0.213***
	men	0.213***
	whole sample	0.205***
	parent	0.205
	aged 30-64 parent	0.197***
	married female	0.197
	aged 15-29 non-married	0.195
	women	0.191
	married childless	0.19
married male	0.19***	
married	0.189	
fathers	0.186	
aged 30-64 male	0.186***	
age 30-64 married	0.171***	
aged 65plus female	0.169	
aged 15-29	0.155	
aged 65plus non-married	0.153	
aged 30-44	0.129*	
childless women	0.120	
aged 15-29 married	0.086	
aged 15-29 female	0.066	
parent of under 16s	0.047	
aged 15-29 parent	0.046	
married parents	0.037	
aged 65plus childless	0.026	

\*\*\* indicates significance of the respective interaction / main effect at  $p < 0.001$ , \*\*  $p < 0.01$ , and \*  $p < 0.05$ .

**Table 36: List of b coefficients for civic engagement (OLS)**

Strongest positive relationship between civic engagement and SWB		aged 30-64 childless	0.296**	
		married childless	0.243	
		aged 15-29 female	0.24	
		childless women	0.215*	
		aged 15-29 married	0.178	
		childless	0.171**	
		aged 30-44	0.157**	
		non-married childless	0.155	
		aged 30-64 male	0.135*	
		aged 65plus male	0.123	
		married male	0.121*	
		parent of under 16s	0.116	
		aged 30-64 non-married	0.115	
		men	0.102*	
		childless men	0.099	
		fathers	0.096	
		aged 15-29 parent	0.082	
		aged 15-29	0.076	
		non-married	0.074	
		whole sample	0.067*	
		married	0.067	
	medium		aged 65plus childless	0.066
			non-married female	0.065
			aged 65plus married	0.061
			non-married male	0.058
			aged 15-29 childless	0.051
			married parents	0.042
		age 30-64 married	0.042	
		aged 65plus	0.04	
		parent	0.035*	
		women	0.033	
		aged 65plus parent	0.027	
		aged 15-29 non-married	0.024	
		aged 30-64 female	0.021	
		aged 30-64 parent	0.021	
		aged 65plus non-married	0.02	
		aged 45-64	0.008*	
		parent of 16s and older	-0.002	
		non-married parents	-0.003	
		married female	-0.004	
		mothers	-0.023*	
		aged 65plus female	-0.036	
		aged 15-29 male	-0.064	
Strongest negative relationship between civic engagement and SWB				

\*\*\* indicates significance of the respective interaction / main effect at  $p < 0.001$ , \*\*  $p < 0.01$ , and \*  $p < 0.05$ .

**Table 37: List of b coefficients for socialising (OLS)**

Strongest positive relationship between socialising and SWB	aged 15-29 non-married	0.388**
	aged 15-29 male	0.339**
↑	non-married female	0.315*
	aged 15-29 childless	0.307
.	aged 65plus parent	0.306*
	non-married parents	0.298***
.	aged 15-29	0.286*
	aged 65plus female	0.286*
.	aged 65plus married	0.279*
	aged 65plus	0.252*
.	non-married	0.247***
	aged 15-29 parent	0.236
.	mothers	0.235
	aged 65plus male	0.228*
.	non-married male	0.227
	women	0.220*
.	aged 15-29 female	0.206
	aged 30-64 female	0.201*
.	married female	0.195
	parent of 16s and older	0.188
.	non-married childless	0.179
	whole sample	0.162***
medium	aged 65plus non-married	0.159
	childless women	0.153
.	parent of under 16s	0.149**
	aged 45-64	0.144
.	aged 30-64 parent	0.143***
	aged 30-64 non-married	0.142
.	childless	0.133*
	childless men	0.133
.	married parents	0.132*
	married	0.117*
.	men	0.110**
	fathers	0.109
.	age 30-64 married	0.101*
	parent	0.094
.	aged 30-44	0.077
	married male	0.074
↓	aged 30-64 male	0.027
	married childless	0.003*
Strongest negative relationship between socialising and SWB	aged 65plus childless	-0.008
	aged 15-29 married	-0.036
	aged 30-64 childless	-0.042

\*\*\* indicates significance of the respective interaction / main effect at  $p < 0.001$ , \*\*  $p < 0.01$ , and \*  $p < 0.05$ .

It is noteworthy that there are very few significant interaction terms of the specific SC facet trust resulting in little empirical support of the respective hypotheses. Only hypothesis 14, 20, and 38 could be supported with the data, and only one of three did sustain its significant finding through both OLS and ordered logit analyses. The particular interpretation of the stronger relationship between trust and SWB for parents of under 16 year olds which this hypothesis deals with was given in chapter 6. On a broader scale, however, the lack of significant results with regard to slope heterogeneity concerning trust means that this particular facet of SC – unlike socialising and civic engagement – seems to matter to a very similar and indeed positive extent for all subgroups in society. Almost everyone is equally more satisfied with their life the more they trust other people. The divergence of the trust measure in this respect from the other two kinds of SC in this study furthermore indicates that the SC concept is indeed multifaceted with distinct features. Consequently, the role of generalised trust as the default “rough-and-ready indicator” of SC (Halpern, 2005: 34) may need to be re-examined.

Nonetheless, the many significant findings especially for socialising and civic engagement provoke the follow-up question of how far the nature of SC, e.g. the socialising experience itself, differs between subgroups, e.g. young non-married and middle aged married people. Surely, these exchanges take place in a different life course context which affects the role they play for people’s SWB. Thus, informal SC for young non-married people is perhaps of a superior quality in terms of its effect on SWB. An alternative explanation would be that SC is simply of more paramount importance for people in certain life situations, e.g. socialising in one’s formative years, especially if one is not married. The section on future research below will make appropriate suggestions to explore these issues further. First, however, the theoretical framework that was developed as the basis of the aforementioned analyses will be revisited in more detail in the following section (9.1.2), as it provides important clues to explain the cited phenomena.

In sum, the empirical chapters revealed interesting findings with regard to slope heterogeneity in the social context of SWB across the subgroups studied here. At opposite ends of the scale, some subgroups show very strong positive relationships, while others show non-associations or even negative ones. What both extremes have in common, though, is their crucial deviation from the sample mean, which makes such an

analysis valuable and casts doubt on the simplification which the sample averages entail. Given such promising initial results, this dissertation may hopefully spark a wave of research on SWB which provides more nuanced insights into its specific correlates for societal subgroups in a variety of different contexts. In the end, we should be able to flesh out which factors in relation to SWB are anthropological constants, and which ones are culturally and sub-culturally relative.

### ***9.1.2 Developing theoretical frameworks***

Perhaps as a consequence of a more applied interest in the correlates of happiness, combined with the often interdisciplinary nature of investigations, theoretical foundations have played only a subordinate role in past SWB research. Besides the main objective of the dissertation as outlined in the preceding section, the diagnosed preference of existing studies to emphasise empirical findings rather than theory therefore forms the basis of the second aim of this thesis. Given the under-theorisation of the SWB research field, which some have criticised, it appears crucial for future research in this area to do a better job at connecting existing findings in order to formulate broader narratives. A stronger emphasis must be laid on the development of theoretical frameworks that guide the development of hypotheses and the empirical analyses.

To overcome such weaknesses, the first step in this dissertation in chapter 2 was to review a number of diverse theoretical approaches that can be usefully applied to the study of the social context of SWB. The approaches range from Durkheim's early assertion that social connectedness is beneficial for human beings to more recent and comprehensive theories from sociology and psychology. The stress-buffering model and the main-effect model by Cohen & Wills, for instance, outline ways in which SC may lead to higher SWB. Similarly, the Social Production Function theory discusses how SC brings confirmation and affection which may improve life satisfaction. Such approaches are complemented by other scholars' attempts to focus on the extrinsic value of SC, such as Lin's network theory of SC. Crucially, the chapter also elaborated on a strand of literature on bad SC, to which this dissertation can also make a significant contribution (see section 9.1.3).



In the light of the findings of slope heterogeneity in the relationship between SC and SWB, the aforementioned theoretical mechanisms can be reaffirmed while at the same time some of them can be qualified. More precisely, it was postulated that having social relationships was a basic human need. While this in general is supported by the subgroup analyses in this dissertation, the theory must be qualified in the sense that not all kinds of social relationships seem to be in a positive relationship with well-being for all groups of society. For instance, middle aged men who socialise much are hardly any more satisfied with their lives than those who never socialise. This casts new light on general postulates such as the one about SC being a basic human need. At the very least, it can be assumed that perhaps different kinds of SC can be substituted for each other, which would be an interesting avenue for further research. Similarly, while most subgroups may well benefit from SC as a buffer against the side effects of increasing modernisation (e.g. individualisation and its negative components such as loneliness), for the subgroup of middle aged men this buffer seems unnecessary or at least ineffective. For a more detailed assessment of the aforementioned theoretical mechanisms and their relation to each subgroup, however, more (especially qualitative) data would be required, as the precise *way in which SC is perceived* as a benefit by the respondents cannot conclusively be inferred from the large-scale survey data used in this thesis.

Perhaps more important than the reinforcement or qualification of existing theories on the effect of SC on SWB, though, is that at the onset of each empirical chapter a theoretical framework was developed from which new hypotheses were drawn. These frameworks were specific to the societal subgroups studied in the respective chapters (although some overlap between chapters can be found). For instance, the existence of gender differences in the relationship between SC and SWB in chapter 4 was hypothesised on the basis of socialisation theory, role-identity theory, and other factors resulting from the differing life situations that men and women tend to find themselves in. Similarly, socio-emotional selectivity theory and the differing role context in which the accumulation of SC takes place across the life course led to the anticipation of varying slopes in the relationship under study across age groups in chapter 5.

As the empirical findings on slope heterogeneity and the range of hypotheses for which empirical support could be gathered demonstrate, the theoretical perspectives formulated in this dissertation proved largely fruitful. It does indeed seem that one's

gender, marital status, parental status, and age are not only associated with profound changes regarding one's *levels* of SC and SWB. Also, the statistical *relationship* between the two concepts varies substantially across those four categories by which society can be divided.

In addition, there is another way in which this dissertation can advance theoretical discussions. Indeed, a long standing debate in the social sciences centres around the terms *homo economicus* and *homo sociologicus*. Both of them are models to explain human behaviour. However, they each give very different reasons for why we act the way we do. The first is more widespread in economics and rational choice theory. It assumes that human beings behave according to their preferences in order to maximise utility. Hence, individuals' *revealed preferences*, i.e. the things they do, contain sufficient information about what makes them happy (see e.g. Ng & Tseng, 2008).

By contrast, the *homo sociologicus* approach considers human action to be guided by societal norms and expectations.<sup>55</sup> Thus, *homo sociologicus* is motivated to act rather in order to fulfil role obligations which are associated with positive or negative sanctions by other members of society. Conformity to roles and associated norms becomes the key motive of behaviour here, thereby decreasing the importance of individual preferences in understanding how people act. According to this theory, people acquire their personalities during the process of socialisation as a result of societal expectations (Dahrendorf, 1973 [1958]; Weale, 1992).

The empirical analyses performed in this dissertation allow us to disentangle under which circumstances either approach to explaining human behaviour may be more promising. More precisely, comparing levels of SC for a particular subgroup with the associated SWB gives important clues regarding the appropriateness of the *homo sociologicus* vs. the *homo economicus* concept in the particular context. In other words, the levels of SC as displayed in the descriptive statistics of each empirical chapter can be understood as revealed preferences. If they align with the strength of an association between SC and SWB, then it can be assumed that the *homo economicus* approach is a fruitful one in the respective case. If, however, there is a mismatch between revealed

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<sup>55</sup> This view supports James Duesenberry's (1960: 233) observation that: "Economics is all about how people make choices [...] Sociology is all about how they don't have any choices to make."

preferences and SWB associated with a particular activity, then the homo sociologicus model appears to be more appropriate.

An illustration of such an approach is given here. Tables 38 and 39 provide a ranking of the levels of the two behaviour based types of SC (civic engagement and socialising) as the revealed preferences. In a second step, they are compared to the b-coefficients in tables 36 and 37 from the previous sub-section. Consequently, tables 40 and 41 summarise whether there is a match or a mismatch between levels of SC and the strength of the association of that SC with SWB. For this purpose, three categories containing an equal number of subgroup items are formed: high, medium, and low levels of SC. These groups represent the upper, medium, and lower third of the distribution and are defined as formal SC of the values below 1.24, 1.24 – 1.36, and above 1.36, respectively. The corresponding scores for informal SC are 3.93, 3.93 – 4.15, and above 4.15. Likewise, three categories for the relationship between SC and SWB are formed based on the following sizes of the b coefficient for formal SC: low = below 0.04, medium = between 0.04 and 0.099, and high = above 0.099. For informal SC, these values are: low = below 0.133, medium = between 0.133 and 0.227, and high = above 0.227 (see tables 36 and 37). A match is declared if high levels of SC coincide with a large b coefficient, medium levels of SC with a medium b coefficient, and low levels of SC with a small b coefficient.

Tables 40 (formal SC) and 41 (informal SC) illustrate an interesting dichotomy with regard to the homo economicus and homo sociologicus approach. Rather than uniformly supporting one of them, the results indicate that in certain contexts and situations one model or the other is more feasible. A number of findings from this study support the homo economicus theory in that there is an overlap between the descriptive level of SC and the size of the coefficient. That is to say that their revealed preferences, i.e. how often they do something, is in line with the strength of the slope for the SC SWB relationship. Young, non-married people, for example, top both tables for informal SC. They show the highest levels of informal SC when comparing subgroups by age and marital status in chapter 8.5 (4.95\*\*\*), as well as the strongest association between that informal SC and SWB ( $b = 0.388^{**}$ ).

**Table 38: Descriptive levels of formal social capital as revealed preferences**

	aged 30-64 female	1.5***
.	age 30-64 married	1.49***
.	parent of under 16s	1.47**
.	aged 30-44	1.45*
.	aged 30-64 parent	1.45***
.	married parents	1.44***
High levels of SC	married female	1.44**
.	married	1.42***
.	married male	1.41*
.	mothers	1.39*
.	aged 65plus married	1.39
.	women	1.38*
.	parents	1.38**
_____	aged 45-64	1.37
.	fathers	1.36
.	aged 65plus male	1.36
.	parent of 16s and older	1.35
.	aged 65plus childless	1.35
.	aged 65plus	1.34
.	childless women	1.34
Medium levels of SC	aged 65plus parent	1.34
.	aged 65plus female	1.33
.	whole sample	1.31
.	aged 30-64 male	1.3
.	non-married female	1.30***
.	married childless	1.29
.	aged 65plus non-married	1.27
.	aged 30-64 childless	1.24
_____	men	1.24*
.	aged 30-64 non-married	1.19
.	non-married parents	1.18*
.	childless	1.16**
.	non-married	1.15***
.	non-married childless	1.14**
Low levels of SC	aged 15-29 childless	1.08***
.	aged 15-29 non-married	1.06***
.	aged 15-29 female	1.04**
.	childless men	1.03***
.	aged 15-29	1.02***
.	aged 15-29 male	1.0***
.	non-married male	0.98***
.	aged 15-29 married	0.9**
.	aged 15-29 parent	0.75**

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. The t-test reflects the distinction dummy variable (e.g. married men) vs. rest of the sample.

**Table 39: Descriptive levels of informal social capital as revealed preferences**

	aged 15-29 non-married	4.95***
.	aged 15-29 childless	4.91***
.	aged 15-29 male	4.83***
.	aged 15-29	4.78***
.	aged 15-29 female	4.73***
.	non-married childless	4.65***
High levels of SC	childless men	4.49***
.	childless women	4.48***
.	childless	4.48***
.	non-married male	4.46***
.	non-married	4.42***
.	non-married female	4.38
.	aged 65plus non-married	4.22
_____	aged 65plus female	4.18
.	aged 65plus parent	4.15
.	aged 15-29 parent	4.15
.	aged 65plus	4.13
.	non-married parents	4.12
.	women	4.1
.	whole sample	4.09
Medium levels of SC	men	4.08
.	aged 65plus male	4.08
.	aged 65plus married	4.07
.	aged 15-29 married	4.04
.	aged 65plus childless	4.01
.	married childless	3.98
.	mothers	3.96
.	parent of 16s and older	3.96***
_____	aged 30-64 non-married	3.93*
.	parents	3.91***
.	married female	3.88***
.	married	3.86***
.	aged 30-64 childless	3.86*
.	fathers	3.85***
Low levels of SC	aged 30-44	3.85**
.	aged 30-64 female	3.85***
.	married parents	3.84***
.	married male	3.83***
.	aged 45-64	3.8***
.	aged 30-64 parent	3.8***
.	parent of under 16s	3.79***
.	aged 30-64 male	3.78***
.	age 30-64 married	3.77***

t-test for equality of means: \*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$ , \*  $p \leq 0.05$ .

N.B. The t-test reflects the distinction dummy variable (e.g. married men) vs. rest of the sample.

**Table 40: Comparing the results for formal social capital with regard to homo economicus vs. sociologicus**

Subgroups which are in the same category, resulting in support for the homo <i>economicus</i> approach	Subgroups which are not in the same category, resulting in support for the homo <i>sociologicus</i> approach
Formal social capital	
parent of under 16s aged 30-44 married male fathers aged 65plus childless aged 65plus non-married female non-married parents aged 15-29 non-married aged 15-29 male	aged 30-64 female age 30-64 married aged 30-64 parent married parents married female married mothers aged 65plus married women parents aged 45-64 aged 65plus male parent of 16s and older childless women aged 65plus parent aged 65plus female aged 30-64 male married childless aged 65plus non-married aged 30-64 childless men aged 30-64 non-married childless non-married non-married childless aged 15-29 childless aged 15-29 female childless men aged 15-29 non-married male aged 15-29 married aged 15-29 parent

N.B. For the detailed matching tables see Appendix.

**Table 41: Comparing the results for informal social capital with regard to homo economicus vs. sociologicus**

Subgroups which are in the same category, resulting in support for the homo <i>economicus</i> approach	Subgroups which are not in the same category, resulting in support for the homo <i>sociologicus</i> approach
Informal social capital	
aged 15-29 non-married aged 15-29 male aged 15-29 non-married non-married female aged 65plus female women parent of 16s and older aged 30-64 non-married parents married aged 30-64 childless fathers married parents married male aged 30-64 male age 30-64 married aged 30-44	aged 15-29 childless aged 15-29 female non-married childless childless men childless women childless non-married male aged 65plus non-married aged 65plus parent aged 15-29 parent aged 65plus non-married parents men aged 65plus male aged 65plus married aged 15-29 married aged 65plus childless married childless mothers married female aged 30-64 female aged 45-64 aged 30-64 parent parent of under 16s

N.B. For the detailed matching tables see Appendix.

An even larger number of subgroups, however, (at least according to this particular categorisation) support the homo sociologicus approach. Here, there is no overlap between what people do (levels of SC) and how the activity is associated with SWB. These subgroups can be assumed to accumulate SC out of role obligations rather than to maximise their own utility. This is particularly pronounced e.g. for mothers. Although they show the highest levels of civic engagement of all subgroups in chapter 8.1, they have a negative association between such formal SC and SWB. Such findings seem confusing at a first glance, as it does not seem to make sense that mothers would volunteer so much if this is not associated with more (but even slightly less) well-being. However, the homo sociologicus approach which highlights societal norms in shaping human behaviour can resolve the confusion. Thus, mothers do not participate in voluntary work to maximise their own utility (or at least they do not participate *in the*

*particular kind* of voluntary work which would increase their personal utility). Instead, their activities seem to be more of a result of their societal role. In Osborne et al.'s (2009: 221) in-depth interviews, for instance, mothers evaluated their involvement in parenting based groups as "normal and inevitable". Also, they allegedly suffer from feelings of guilt when neglecting their family responsibilities due to civic engagement since they frequently have to 'juggle' several family and work-related responsibilities (ibid.).

Finally, it should be noted that this categorisation of homo economicus vs. sociologicus subgroups is far from definite or inevitable. For example, it is oriented towards relative values rather than absolute ones, and not all matches in tables 40 and 41 are based on significant interaction terms. Hence, alternative tables with absolute values and only significant matches could be produced and discussed. Consequently, a different classification in one high vs. one low group, or along absolute levels of SC and coefficient sizes would bring about a different result. However, the procedure shall serve as a first demonstration of the fruitfulness of such an approach without discussing the relative merits of possible detailed specifications at length.

In sum, the categorisation and subsequent matching do indeed demonstrate the strong potential of SWB research to advance long-standing theoretical debates in the social sciences. At the end of the day, this dissertation committed substantial parts to theoretical development with promising results. Further research could take these approaches as a starting point for on-going refinement. Moreover, it seems appropriate that future studies in the field of SWB research routinely start out from sound theoretical foundations. Such a procedure promises interdisciplinary enrichment for the various disciplines involved, as all of them have useful theoretical frameworks to contribute.

### ***9.1.3 Advancing the debate on social capital***

Although much of this conclusion focuses on how research on SWB can be advanced, important implications regarding the second concept under study, namely SC, should not be forgotten. Chapters 2.2 and 2.3 discussed the literature on this topic in detail. A detailed presentation of the state of the knowledge on the history and measurement of SC eventually led to the formulation and operationalisation of the SC indicators used in this dissertation: trust, civic engagement, and socialising.



The aforementioned chapters furthermore illustrated that the majority of research on SC has focused on the positive attributes of the concept, concluding that those who have more of it are more likely to be “housed, healthy, hired and happy” (Woolcock, 2001: 12). A number of alternative studies, however, were presented to demonstrate the downsides of SC. According to this school of thought, SC may be associated with a range of negative outcomes. Bourdieu (1986), for instance, claimed that the main purpose of SC is for privileged groups to exclude others and to maintain existing societal hierarchies. Likewise, Woolcock & Narayan (2000: 231) have described the nature of SC as a “double-edged sword” that may have positive as well as negative outcomes.

In order to contribute to progress in this long-standing debate, this thesis investigated under which circumstances, more precisely: for which subgroup and which kind of SC, SC is associated (more) positively or negatively with SWB? Consequently, a look at tables 35 to 37 illustrates that for a number of subgroups, e.g. middle aged and childless people, *formal* SC is very strongly and positively related to SWB. On the other hand, for mothers there was a slightly negative relationship between the two concepts. Similarly, *informal* SC is very strongly and positively associated with SWB among young and non-married people, while a non-association is found for married and childless people.

The ambivalent outcomes of SC for the various subgroups presented here enable a refinement of the opposing views of SC. More precisely, the quoted downsides of SC, such as exclusion of outsiders, excess claims on group members, restrictions on individual freedom, and downward levelling norms (e.g. Portes, 1998; Portes & Landolt, 1996), may be felt more heavily by certain subgroups such as mothers. Role-identity approaches discussed in this thesis suggest that the accumulation of SC takes places in different contexts, which overall seems to have a decisive effect on the SWB related to it.

Finally, a distinction was proposed in this thesis between internal/family SC and external SC. It is proposed that such a distinction make its way into future research in this area, as it has been successfully applied in this dissertation. In particular, it was argued that the quality of ties and the logic which governs social relationships is different between one’s family vs. non-family members. A related question that could

be explored further in the future is whether with regard to SWB, informal SC in the form of socialising can be some kind of replacement for lacking family relationships. Analysing SC in such a context of family studies would add to the theoretical development of the concept.

#### ***9.1.4 Revisiting the relationship between gender and parenthood with subjective well-being***

It was noted at the beginning of this thesis, and during the more detailed review of the ‘correlates of happiness’ in chapter 2.1 in particular, that the existing evidence regarding some explanatory variables in SWB research is quite mixed. More precisely, it remains controversial how gender and parenthood are associated with SWB. In particular, the often cited finding of a negative or non-association between having children and SWB regularly cause bewilderment among lay audiences.

As a result, this dissertation took a more nuanced look at these questions by performing a more complex analysis of these bivariate relationships that takes into account interactions with the third variable SC - in fact, its three facets. The procedure allows distinguishing under which (SC) circumstances gender and parenthood have what kind of statistical relationship with life satisfaction.

Chapter 4 on gender and chapter 6 on parental status, as well as the various sub-distinctions of chapter 8, indeed brought to light interesting results in this regard. The regressions mainly revealed that:

- When never socialising at all men are more satisfied with their lives than women, while among those people who socialise daily women are more satisfied. Meanwhile, under the condition of socialising once a week, there are no gender differences regarding SWB.
- Men who experience moderate levels of civic engagement are more satisfied than women, while women are more satisfied at both extreme ends of the formal SC scale.
- When not volunteering at all, parents are more satisfied with their lives than childless people. At high levels of formal SC, however, childless people are more satisfied than parents.

- Parents of under-16 year olds are more satisfied with their lives than parents of older children and childless people, while the reverse is true at higher levels of the trust scale.

These findings indicate that the relationship between gender and parenthood, respectively, with SWB is not as straightforward as a positive or a negative one. Instead, this dissertation has drawn attention to the social context in which people find themselves. Whether they socialise a lot or not at all, whether they are civically engaged, and whether they trust others around them in a number of cases affects the relationship between gender and parental status with SWB.

### ***9.1.5 Towards a Sociology of Happiness***

At the start of this dissertation it was noted that while the study of SWB has become widespread in psychology and economics, it is not (yet) a popular topic in sociology. To counteract the criticised negligence of SWB in sociology this dissertation aims to make a contribution to an evolving Sociology of Happiness. It does so by investigating a number of social correlates of SWB that are not simply reducible to economic factors or individual psychological processes. Furthermore, and perhaps more importantly, several sociological theories are fruitfully applied in this dissertation to overcome the problem of under-theorisation in happiness research. Hence, this thesis is also a case study to show a) what could be the contribution of sociology to the expanding ‘science of happiness’ especially by addressing current blind spots, as well as b) what that new research field on SWB has to offer in order to advance sociology. The analysis of the association between SC and SWB that was performed here is therefore an illustrative example of how to connect sociological theory with empirical research on happiness. Consequently, this dissertation serves as a demonstration of win-win situations between sociology and happiness research.

In sum, the ‘new science of happiness’ can deliver much-needed empirical tests of sociological theories. At the same time, sociological theory can be a significant gain for the rather empirically-oriented research field of SWB. The gains for the happiness literature from this sociological investigation in particular were that new insights into the social context of well-being (i.e. variations by gender, age, parental status, and marital status) were found. More importantly, these findings can be fruitfully linked to

broader sociological narratives, e.g. of the life course perspective, gender socialisation theory, socio-emotional selectivity theory, and role-identity theory. It was demonstrated here how these theories can be used to formulate testable hypotheses with regard to SWB, in particular about the changing societal role-context for various subgroups and its significant implications for the relationship between SC and SWB. At the same time, this study has shown how SWB research can offer new perspectives and approaches on long-standing theoretical debates in the social sciences like regarding homo sociologicus vs. economicus.

Such sociological approaches as the one demonstrated in this dissertation would indeed lend themselves to further empirical applications in SWB research. For instance, studies could investigate the association between income (or unemployment, or marital status, etc.) and SWB from a life course perspective, across gender lines, etc. Sociology can in turn benefit from SWB research as a test for the aforementioned theories in a new context: For instance, happiness research can be an innovative method of studying the suitability of the homo sociologicus vs. economicus model in different settings.

Thus, the potential for a Sociology of Happiness is there, and it is increasingly being exploited. Valuable emerging approaches to connect sociological theory with SWB include Brockmann's analysis of age and SWB (2010), studies of postmodern values and SWB by Delhey (2010), or Inglehart & Welzel (2005), as well as the many contributions by Veenhoven. In fact, according to the latter author, studies on life satisfaction and happiness address questions that lie at the heart of sociology, as "subjective wellbeing is both an outcome of social systems and a factor in their functioning. As such the subject belongs to the core business of sociology" (Veenhoven, 2008: 58). Finally, George (2010) recently claimed to have identified four groups of evolving theoretical schools in SWB research: discrepancy theories, social comparison, strategic investments of resources, the social stratification of SWB, and the social indicators perspective. These five classifications can be considered to contain (at least partly) a sociological argumentation.

Many sociological classics were indeed already making subtle statements about SWB in their works, even though they did not explicitly call it by this name. In particular, Durkheim examined the relationship between social cohesion and anomie, while Comte argued that 'bonheur' was the final reference point for Positivism, and Simmel

considered individualism as a foundation of happiness (Glatzer, 2000; Veenhoven, 2000). Furthermore, while a concerted sociological perspective on SWB is still to be developed, a small number of sub-disciplines were not shy to look at least at some aspects of subjective indicators on well-being in their respective areas, such as job satisfaction in the sociology of work, or marital satisfaction in the sociology of the family (Veenhoven, 2008). Similarly, there is a longer tradition in sociology of empirical social indicators research, see for instance a recent contribution by Noll & Weick (2010). The latter school of thought is also institutionalised in the International Sociological Association's Research Committee 55 on Social Indicators, or the more recently founded Happiness Study Group in the British Sociological Association, as well as the Well-Being and Health Research Group at the University of Leicester.

In conclusion, a new research field called 'Positive Psychology' has been established at the end of the last century to complement the study of mental illness with the investigation of positive outcomes, such as well-being (Seligman & Csikszentmihalyi, 2000). In this vein, it could be the time for a 'Positive Sociology', too: a science that studies the social context of well-being at the micro-level, and the determinants of 'the good society' at the macro-level. The particular contribution of sociology to happiness research would be a thorough examination of the social factors associated with well-being, firmly rooted in sociological theory and robust empirical investigation. Moreover, even critical constructivist approaches from sociology could successfully be applied to the study of happiness to examine underlying mechanisms (see e.g. Frawley, 2010). Finally, the vast majority of empirical research on SWB has been quantitative. Sociological research in other areas has resorted to a rich array of qualitative methodologies such as ethnographies and in-depth interviews, which could be applied to this field of QOL study. They would make an important contribution to current blind spots in the SWB literature, particularly by exploring the precise mechanisms according to which certain well-documented quantitative correlates influence well-being.

## **9.2 Limitations**

The limitations of this study should be pointed out. The first one is, as is the case with all correlational analyses, rooted in the issue of causation. This investigation cannot establish whether higher levels of SC cause higher life satisfaction or vice versa. Two criteria of causation are fulfilled: a statistical association was found between the two

concepts, and a lack of spuriousness was ensured, at least to the extent in which certain standard control variables were included in the analyses. The third criterion of causation, temporal precedence, however, is unclear given that the ESS has a one-shot design rather than a longitudinal one. Answering such a causal question was not the aim of this dissertation, though. Rather than finding out what causes what, the objective of this thesis was to examine slope heterogeneity in the association between two variables. Furthermore, chapter 2.3 discussed previous longitudinal research that has found causal effects in both directions but mainly from SC to SWB (see e.g. Meier & Stutzer, 2008; Thoits & Hewitt, 2001). The primary perspective in terms of theory and interpretation that is taken and discussed in this thesis is from SC to SWB. Whenever remarks on causality appear in this thesis, they are made on the basis of such prior findings.

If one was to consider the results found here from an equally plausible ‘reverse causality’ perspective from SWB to SC, then it could be concluded, for instance regarding chapter 8.1, that a possible self-selection mechanism which makes satisfied people more likely to volunteer does not apply to mothers. Instead, members of this subgroup seem to participate in community life regardless of a more or less satisfied nature. However, while outcomes in that other direction are acknowledged, this study discusses mainly the implications for a theoretical perspective from SC to SWB based on the professional consensus that “most researchers now agree that social ties have a salutary effect on mental health and psychological well-being” (Kawachi & Berkman, 2001: 459).

Second, one aim of this paper was to end the widespread generalisation in the SWB literature of the mechanism between SC and SWB for entire national populations. It could of course still be argued that men or women in themselves are a very heterogeneous group that ought not to be treated as one entity. For instance, some women are in employment, some are housewives; some look after children, others do not. However, there is a rather practical issue of a diminishing sample size and thus external validity the more specific and smaller the respective subgroups become. Moreover, this study shall serve as an important but initial step towards a more fine-tuned understanding of the mechanisms influencing the well-being of certain subgroups of society. Thus, the promising results presented here hope to spark further debate and research.

Third, it is obvious that the explanatory, as well as the response variable are self-reported like in many other social science survey studies. Thus, they may suffer from a response bias if a respondent tends to give systematically high (or medium or low) values by default on each variable. This is, however, a problem that concerns much social science research that is based on surveys, and there is yet no reliable way to *objectively* measure either SWB or SC.

Fourth, the survey used in this paper contains no information whether volunteers occupy a senior or subordinate position in their civic organisation. Given the hypothesised role of inequalities with regard to gender differences (see chapter 4), future surveys should routinely include such items in order to test the assumption that inequalities are reproduced in civic engagement, as this could have a detrimental impact on some volunteers' well-being. Also, it may be promising to examine whether civic engagement in certain types of associations is more beneficial to SWB than in others, and who precisely people socialise with. In this regard, Morrow-Howell et al. (2009) have conducted a promising in-depth study among older adults with the interesting finding that aspects of the volunteer experience, e.g. the amount of involvement, adequacy of training, and on-going support, also influence how far an individual benefits from civic engagement in terms of feeling "better off" due to volunteering. It would be advantageous if such items were more often included in surveys about SC.

### **9.3 Further research**

A range of proposals for future work in this area result from the approach outlined in this dissertation. The successful demonstration of slope heterogeneity in the relationship between SC and SWB calls for an extension of this method to other well-established correlates of happiness. For instance, it could be investigated further how far people differ when it comes to the relationship between marriage, unemployment, or income with SWB – in addition to the few existing studies on some of these aspects quoted in chapter 2.4. Likewise, other subgroups need to be studied in relation to the link between SC and SWB that was examined in this dissertation, such as different ethnic groups, migrants vs. natives, or distinctions by employment status, education, socio-economic status, and religious affiliation. Going beyond a unitary happiness formula consisting of a number of variables for a whole nation (or indeed the human race), such a strategy could be promising to disentangle the question of which particular variables have a

stronger effect on the SWB of which particular societal subgroup. Similarly, cross-national differences in the correlates of SWB could be more strongly examined using this method.<sup>56</sup> Finally, further variables apart from SC could be tested in the context of parenthood and gender to elaborate on their respective relationship with SWB using third variables.

Future studies which also examine subgroups could, furthermore, resort to the sociological theories that were successfully applied in this dissertation to examine subgroup differences. In doing so, future work may gradually solve the problem of under-theorisation in happiness research, and a range of theories relevant for well-being could be successfully connected to enrich this important area of investigation.

Sociology, and the social sciences in general, can in turn benefit more strongly from SWB research in the future as a test for their theories. For instance, studies that compare levels of an activity (as people's revealed preferences) with the associated SWB coefficients can be an innovative method to study the suitability of the homo sociologicus vs. economicus concept in different settings, as demonstrated in this thesis. Such a method allows for exploring in which situations and life domains people act in order to maximise their own well-being, and in which situations they comply with the norms dictated by societal roles. This method can illuminate the long-standing debate about the differing *Menschenbilder* (conceptions of man) in the social sciences.

In addition, the preceding sections have repeatedly given an indication, where appropriate, about what further research could follow on from a) the limitations of this study, as for instance in the case of the suggestion to examine volunteers' position in organisational hierarchies when looking at the relationship with SWB, or further experimental and longitudinal work to examine causality; and b) a distinctively sociological approach to studying SWB. The latter includes a stronger focus on the social correlates of SWB, as well as more qualitative and constructivist methodologies in this research area. Furthermore, an extension of this analysis to other countries and other variables in addition to life satisfaction (e.g. happiness, optimism, affect balance)

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<sup>56</sup> Initial findings that show the potential of this line of inquiry indicate that, for instance, inequality is associated with lower SWB in Europe but not the US (Alesina et al., 2004). See also Helliwell et al. (2010) and Delhey (2010) for related studies on the cross-national similarities and differences in the correlates of SWB.



is desirable to explore the generalisability of the findings, as well as to compare the characteristics and correlates of different left hand side SWB variables.

Promising results about slope heterogeneity, especially concerning civic engagement and socialising provoke the follow-up question about the precise mechanisms at play here. Further (ideally qualitative and quantitative) work is necessary to understand how far the nature of SC, e.g. the socialising experience itself, differs across subgroups, e.g. between young non-married and middle aged married people. Such interpersonal exchanges take place in a different life course context with differing results in terms of SWB. Informal SC for young non-married people may be of a ‘better quality’ with regard to life satisfaction. An alternative hypothesis to test in this context is that SC is simply of a higher importance for people in certain life situations, e.g. socialising in one’s youth and old age, especially if one is not married. Future research should also look at the characteristics of the people that respondents socialise with, especially in comparison to the respondents’ own characteristics. Is, for example, the effect of bonding SC different from bridging SC, and does the variation play out differently across subgroups? What role and importance do respondents attach to socialising in young, middle, and old age, respectively? Such questions could get at the heart of the mechanisms that this dissertation revealed, and which it could only describe based on the statistical findings and theories.

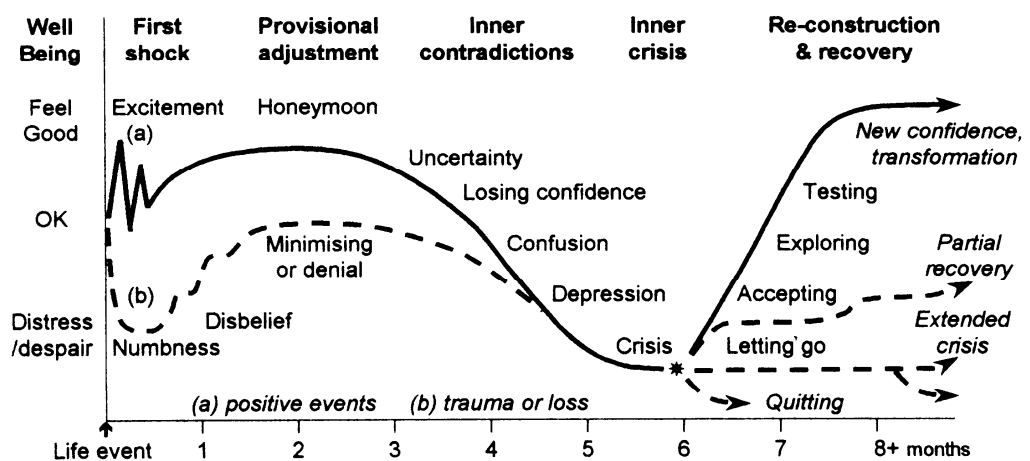


Figure 36: Phases and features of the Transition Cycle. (Source: Hopson & Adams, 1976).

Finally, Hopson & Adams (1976) have drawn attention to the development of well-being over time following a life event, such as taking up volunteering (see figure 36). Their model illustrates how the well-being of a respondent may fluctuate over a few months in relation to new circumstances. While the first few months of taking up voluntary work may be very enjoyable and are termed as the “honeymoon phase”, they are very likely to be followed by some sort of crisis whose outcome may either be quitting the activity, a partial recovery, or a full recovery with new confidence. Hence, their approach suggests that the mediating variable ‘time’ can be factored into the relationship between formal SC and SWB. From the ESS data it is not known which phase of the cycle those respondents who did spend some time in civic engagement were in when the interview took place. Consequently, it would be an interesting question for further longitudinal research to see if there are differences between the subgroups studied here regarding their SWB in relation to SC over time. The results brought forward by this thesis suggest to a certain degree that differences may exist.

#### **9.4 Policy implications**

This dissertation is concerned with the correlates of subjectively reported life satisfaction. Are there any links between such an endeavour and government policy? Can such analyses be used to inform politicians, and should happiness be the aim of public policy at all? While this concluding chapter is being written, an increasing number of initiatives are exploring such issues. Many of them now appear to answer those questions in a positive manner.

As indicated in the introduction to this thesis, the UK Office for National Statistics has been commissioned by the Prime Minister to include measures of SWB in their surveys. In a similar manner, the OECD is currently working on a handbook for measuring SWB within its Global Project for Measuring the Progress of Societies. The latter initiative is trying to be a reference point for the current debate on measuring and assessing the progress of societies, which was taken up and amplified by the Stiglitz Commission (see introduction). In many countries, national roundtables are being created to explore anew the role of well-being indicators for public policy, such as the German Parliamentary Commission on Growth, Prosperity, and Quality of Life. The European Commission has similarly issued a report on measuring progress “Beyond GDP” (see Kroll, 2010).

Such projects are in line with calls by many SWB researchers who have proposed that surveys on people's SWB should play a more important role in policymaking (see e.g. Diener et al., 2009; Diener & Seligman, 2004; Dolan et al., 2011; Dolan & White, 2007; Halpern, 2010; Kroll, 2011; Layard, 2005; Veenhoven, 2002). One major idea in this school of thought is that the 'science of happiness' is able to filter out the correlates, and ideally even the determinants, of higher SWB. It would then be up to governments to take up the clues and foster the explanatory variables in the population, resulting in higher overall well-being. Supporters of the use of SWB measures in public policy indeed declare that "currently available results suggest that those interested in maximizing society's welfare should shift their attention from an emphasis on increasing consumption opportunities to an emphasis on increasing social contacts" (Kahneman & Krueger, 2006: 22). Following this logic, fostering SC in society would be a desirable goal for public policy.<sup>57</sup> Others have argued that the task is much more complex, as causality in many areas of well-being is not entirely straightforward. And even if the direction of causation was always clear, another issue is whether government policy would be able to improve our happiness, or whether we would even want it to do so (Bartram, 2011b).

In any case, increasing the opportunities for social exchange and volunteering does form the basis of the current UK Government's Big Society agenda. These goals are related to the Prime Minister's interpretation of the existing research evidence that people who feel engaged are happier (see quotation in the introductory chapter). This dissertation was able to qualify such policy conclusions in an important manner. While it was true for many (indeed most) subgroups that SC is positively associated with SWB, there were considerable differences in terms of the strength of the relationship. More importantly, for some subgroups there was a non-association, while for mothers in the UK civic engagement was even negatively associated with life satisfaction. The regression analyses showed that a shift from no civic engagement to volunteering at least weekly is on average associated with a decrease in life satisfaction which equals a

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<sup>57</sup> It must be added here that – despite the widespread benefits of SC and emphasis on them in the literature – an often omitted idea in this context is under which conditions the accumulation of SC takes place. The 'contact hypothesis' (Allport, 1954) in this regard suggests that if social ties are formed under favourable conditions then positive outcomes follow. However, if the encounter takes place under unfavourable conditions, such as competition for resources, then negative outcomes such as increased prejudice and stereotyping follow from it (ibid.). Another negative outcome of policy measures that aim to increase SC, in particular volunteering, is that initiatives which resort to external incentives may crowd out people's intrinsic motivation for doing so (Frey, 1997). Therefore, a "challenge is in being able to understand under which institutional conditions voluntary work remains rewarding in itself" (Meier & Stutzer, 2008: 56).

pay cut of £870 per month (while for childless women the figure was an increase by £8,144). Thus, pushing mothers - who have the highest rates of volunteering already compared with other groups - towards more voluntary work with a policy agenda might therefore make them even less satisfied with their lives. In sum, more nuanced policy interventions for specific target groups are needed as opposed to a one-size-fits-all approach.

So how, for instance, could the 'motherhood penalty' be overcome and civic engagement be made enjoyable for mothers, too? After all, there was no difference between fathers and childless men in the relationship between formal SC and SWB, meaning that the benefits that men reap from their civic engagement seem unaffected by parenthood. Two solutions are possible: The short-term solution would be to introduce more flexible and family-friendly patterns of volunteering in order to allow mothers to combine their family responsibilities with civic engagement. The long-term solution, however, would be to work towards a more equal gender identity that shares the burden of family responsibilities between men and women in a more even-handed manner. This way, mothers would be less likely to have a guilty conscience if they spend an evening at the community centre or the running club.

All in all, critics of the use of SWB data in public policy doubt that - at present - findings can be translated directly into actions by governments. They argue that for this to become possible, studies would first have to "take into account [...] the diversity of communities and their values" (Duncan, 2010: 177). This dissertation made an initial but important step towards reaching such an ambitious goal. It will hopefully inspire more research in a similar vein, so that if governments are determined to go ahead with using SWB data as a basis for policymaking they do so using the best possible evidence. The population's well-being would benefit from it.

## Appendix

**Table 42: Matching the levels of formal social capital and the coefficients**

<p>High levels of social capital</p> <p>aged 30-64 female  aged 30-64 married  <i>parent of under 16s</i>  <i>aged 30-44</i>  aged 30-64 parent  married parents  married female  married  <i>married male</i>  mothers  aged 65plus married  women  parents  aged 45-64</p>	<p>Large coefficient</p> <p>aged 30-64 childless  married childless  aged 15-29 female  childless women  aged 15-29 married  childless  <i>aged 30-44</i>  non-married childless  aged 30-64 male  aged 65plus male  <i>married male</i>  <i>parent of under 16s</i>  aged 30-64 non-married  men</p>
<p>Medium levels</p> <p><i>fathers</i>  aged 65plus male  parent of 16s and older  <i>aged 65plus childless</i>  <i>aged 65plus</i>  childless women  aged 65plus parent  aged 65plus female  aged 30-64 male  <i>non-married female</i>  married childless  aged 65plus non-married  aged 30-64 childless  men</p>	<p>Medium coefficient</p> <p>childless men  <i>fathers</i>  aged 15-29 parent  aged 15-29  non-married  married  <i>aged 65plus childless</i>  <i>non-married female</i>  aged 65plus married  non-married male  aged 15-29 childless  married parents  age 30-64 married  <i>aged 65plus</i></p>
<p>Low levels</p> <p>aged 30-64 non-married  <i>non-married parents</i>  childless  non-married  non-married childless  aged 15-29 childless  <i>aged 15-29 non-married</i>  aged 15-29 female  childless men  aged 15-29  <i>aged 15-29 male</i>  non-married male  aged 15-29 married  aged 15-29 parent</p>	<p>Small coefficient</p> <p>parent  women  aged 65plus parent  <i>aged 15-29 non-married</i>  aged 30-64 female  aged 30-64 parent  aged 65plus non-married  aged 45-64  parent of 16s and older  <i>non-married parents</i>  married female  mothers  aged 65plus female  <i>aged 15-29 male</i></p>

*Italics = match*, normal style = mismatch

**Table 43: Matching the levels of informal social capital and the coefficients**

<p>High levels of social capital</p> <p><i>aged 15-29 non-married</i>  aged 15-29 childless  <i>aged 15-29 male</i>  <i>aged 15-29</i>  aged 15-29 female  non-married childless  childless men  childless women  childless  non-married male  <i>non-married</i>  <i>non-married female</i>  aged 65plus non-married  <i>aged 65plus female</i></p>	<p>Large coefficient</p> <p><i>aged 15-29 non-married</i>  <i>aged 15-29 male</i>  <i>non-married female</i>  aged 15-29 childless  aged 65plus parent  non-married parents  <i>aged 15-29</i>  <i>aged 65plus female</i>  aged 65plus married  aged 65plus  <i>non-married</i>  aged 15-29 parent  mothers  aged 65plus male</p>
<p>Medium levels</p> <p>aged 65plus parent  aged 15-29 parent  aged 65plus  non-married parents  <i>women</i>  men  aged 65plus male  aged 65plus married  aged 15-29 married  aged 65plus childless  married childless  mothers  <i>parent of 16s and older</i>  <i>aged 30-64 non-married</i></p>	<p>Medium coefficient</p> <p>non-married male  <i>women</i>  aged 15-29 female  aged 30-64 female  married female  <i>parent of 16s and older</i>  non-married childless  aged 65plus non-married  childless women  parent of under 16s  aged 45-64  aged 30-64 parent  <i>aged 30-64 non-married</i>  childless  childless men</p>
<p>Low levels</p> <p><i>parents</i>  married female  <i>married</i>  <i>aged 30-64 childless</i>  <i>fathers</i>  <i>aged 30-44</i>  aged 30-64 female  <i>married parents</i>  <i>married male</i>  aged 45-64  aged 30-64 parent  parent of under 16s  <i>aged 30-64 male</i>  <i>age 30-64 married</i></p>	<p>Small coefficient</p> <p><i>married parents</i>  <i>married</i>  men  <i>fathers</i>  <i>age 30-64 married</i>  <i>parents</i>  <i>aged 30-44</i>  <i>married male</i>  <i>aged 30-64 male</i>  married childless  aged 65plus childless  aged 15-29 married  <i>aged 30-64 childless</i></p>

*Italics = match*, normal style = mismatch

**Table 44: Descriptive statistics of the control variables**

variable	mean	standard deviation	min – max	N
health	2.99	0.92	0 – 4	2393
monthly income (in £1,000)	1.502	1.07	0.02 – 7.45	1807
education in years	13.50	3.92	0 – 56	2362
religiosity	3.99	2.93	0-10	2388

variable	frequency (%)	N
parent	1643 (68.7 %)	2392
female	1257 (52.5 %)	2394
aged 15-29	514 (21.5 %)	2387
aged 30-64	1372 (57.5 %)	2387
aged 65+	474 (19.9 %)	2387
married	1389 (58.4 %)	2380
single	604 (25.4 %)	2380
separated	46 (1.9 %)	2380
divorced	175 (7.4 %)	2380
widowed	166 (7.0 %)	2380
unemployed	95 (4%)	2389

***Full wording of the social capital and subjective well-being variables***

Source: European Social Survey, 2006, Version 3.2, Questionnaire,  
<http://www.europeansocialsurvey.org>

**Trust**

**Question A 8**

Using this card, generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted.

00 You can't be too careful

01 1

02 2

03 3

04 4

05 5

06 6

07 7

08 8

09 9

10 Most people can be trusted

77 Refusal

88 Don't know

99 No answer

**Question A 9**

Using this card, do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?

00 Most people would try to take advantage of me

01 1

02 2

03 3

04 4

05 5

06 6

07 7

08 8

09 9

10 Most people would try to be fair

77 Refusal

88 Don't know

99 No answer



Question A 10

Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?

00 People mostly look out for themselves

01 1

02 2

03 3

04 4

05 5

06 6

07 7

08 8

09 9

10 People mostly try to be helpful

77 Refusal

88 Don't know

99 No answer

**Civic engagement**

Question E 1

In the past 12 months, how often did you get involved in work for voluntary or charitable organisations?

01 At least once a week

02 At least once a month

03 At least once every three months

04 At least once every six months

05 Less often

06 Never

77 Refusal

88 Don't know

99 No answer

Question E 3

And in the past 12 months, how often did you help with or attend activities organised in your local area?

01 At least once a week

02 At least once a month

03 At least once every three months

04 At least once every six months

05 Less often

06 Never

77 Refusal

88 Don't know

99 No answer

## **Socialising**

### Question C 2

Using this card, how often do you meet socially with friends, relatives or work colleagues?

- 01 Never
- 02 Less than once a month
- 03 Once a month
- 04 Several times a month
- 05 Once a week
- 06 Several times a week
- 07 Every day
- 77 Refusal
- 88 Don't know
- 99 No answer

## **Subjective well-being (life satisfaction)**

### Question B 24

All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely dissatisfied and 10 means extremely satisfied.

- 00 Extremely dissatisfied
- 01 1
- 02 2
- 03 3
- 04 4
- 05 5
- 06 6
- 07 7
- 08 8
- 09 9
- 10 Extremely satisfied
- 77 Refusal
- 88 Don't know
- 99 No answer

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