# Geographies of wellbeing and development

## Empirical analyses on the relationship between objective and subjective measures of wellbeing in Europe

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*To geographer Mr. William Ebukali - Okwi from Makerere University, Uganda, and his family for the discussions we have shared on different forms of wellbeing in African and Finnish contexts*

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## Abstract

This thesis investigates the cross-sectional association between different quantifiable societal dimensions that indicate spatially varying levels of wellbeing and development. The analysis is grounded in human geography but applies an explicitly interdisciplinary focus, combining theories and measures from economic geography, cultural studies, spatial economics, sociology and social psychology. In the empirical analyses, geographically referenced European Social Survey (ESS) data containing measures of subjective wellbeing (SWB) and human values were analysed together with objective indicators of economic performance on national and subnational scales.

This dissertation suggests that multivariate models of SWB data can focus on three different areas of geographical heterogeneity. First, intercept heterogeneity, which is built on a constructivist and container-based view of geography, as it focuses on spatially varying levels (intercepts) of SWB aggregated from survey data. Second, slope heterogeneity, which suggests that different geographical contexts affect the relationship between individual level SWB and its predictors. Third, scale heterogeneity, which involves the spatial rescaling of the analysis while interpreting the relief map of SWB. This thesis studied these areas in four different empirical analyses.

First, Paper I demonstrated that levels of 'social trust' and 'social contact and support', which indicate social wellbeing, and a sense of 'competence and meaning', which denotes personal wellbeing, are significant positive correlates with regional GDP after controlling for regional economic indicators and the spatial effects embedded in the data. Second, Paper II utilized the Human Values Scale in the ESS and studied the association between certain values and the level of economic performance. The paper demonstrated that the aggregate level of the value 'self-direction', which indicates independent thought, action and creativity, is a strong predictor of regional GDP. Paper II also addressed the question of rescaling and used welfare regimes as a relevant socio-historic framework of analysis. Paper III focused on the contextual effects of living in 'Metropolitan Finland'. The results showed that the negative effect on life satisfaction of residing in the capital region of Finland is first compositional, as the population in 'Metropolitan Finland' is composed of individuals who appreciate the values of 'power' and 'achievement', which are themselves associated with lower life satisfaction. However, it is also contextual, as residing in the capital region moderates the positive wellbeing effect of socially focused values such as 'benevolence' and 'conformity'. Finally, Paper IV added vertical detail to the intercept heterogeneity approach and asked whether changes in macroeconomic conditions, in the context of Ireland and its recent economic recession, are experienced differently in different socio-economic categories, i.e. classes. The results show that the

effects of the economic crisis were not experienced equally within the population; rather, the lower strata (the lowest income quartile, manual workers and those with the lowest levels of education) were the most affected.

Both the framework and results of this thesis offer new interdisciplinary insights into the geographies of subjective wellbeing and human values, a disciplinary interface that has largely remained unexplored. The results of this thesis are also relevant for regional policy-making that addresses spatial justice, territorial inequalities and uneven development. Furthermore, the findings concerning the negative wellbeing effect of metropolitan context merit attention in policies on 'urban growth', as they question the underlying values of such policies and their effectiveness for promoting wellbeing. Finally, the finding that macroeconomic changes have different wellbeing effects in different socio-economic layers resonates with the concept of 'inclusive growth', which involves promoting the distribution of opportunities and wellbeing to all segments of the population.

**Keywords:** subjective wellbeing, geography of subjective wellbeing, life satisfaction

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## Tiivistelmä

Subjektiivisen eli koetun hyvinvoinnin mittaaminen on vakiintunut osaksi empiiristä hyvinvointitutkimusta ja koetun hyvinvoinnin mittareita hyödynnetään laajalti tieteenalakohtaisten tutkimuskysymysten empiirisessä tarkastelussa. Analysoidessaan erilaisten hyvinvointi- ja kehittyneisyysmittareiden alueellista yhteisvaihtelua tämä tutkimus sijoittuu osaksi tätä sosiaalitieteissä yleistynyttä suuntausta. Tutkimus hyödyntää erilaisia käsitteitä ja koetun hyvinvoinnin mittareita psykologiasta, sosiaalipsykologiasta sekä taloustieteestä mutta sen lähestymistapa on ensisijaisesti maantieteellinen. Empiirisesti tutkimus rakentuu subjektiivista eli koettua hyvinvointia mittaavan European Social Survey (ESS) kyselyaineiston sekä erilaisia objektiivisia taloudellisia indikaattoreita keräävän EUROSTAT:in tietokantojen varaan. Maantieteellinen näkökulma koettua hyvinvointia mittaavan kyselyaineiston tarkasteluun keskittyy joko väestön keskiarvoihin perustuvien alueellisten tasojen vertailuun, mahdollisten kontekstualisten vaikutusten analysointiin tai kysymykseen koetun hyvinvoinnin alueellisesta dynamiikasta (maantieteellinen keskittyminen tai klusteroituminen) eri aluetasoilla.

Näitä kysymyksiä tarkasteltiin tässä väitöskirjatyössä neljässä erillisessä tutkimuksessa ja empiirisessä analyysissä. Ensimmäinen tutkimus käsitteli erilaisten sosiaalisten ja inhimillisten hyvinvointimittareiden yhteyttä alueen taloudelliseen tuottavuuteen (BKT) 24 eurooppalaisen maan osalta. Tutkimuksen mukaan sosiaalisella luottamuksella, kontakteilla ja tuella on regressionanalyysissä yhteys alueen taloudelliseen tuottavuuteen ja tämä yhteys on riippumaton erilaisista objektiivisista talousindikaattoreista ja alueiden tilallisesta autokorrelaatiosta. Inhimillisten hyvinvoinnin mittareiden osalta kompetenssin ja toimijuuden kokemuksella on vastaavanlainen yhteys taloudelliseen tuottavuuteen. Toinen tutkimus käsitteli erilaisten arvoulottuvuuksien yhteyttä taloudelliseen tuottavuuteen ja tulosten mukaan itseohjautuvuuden kokemisella on tähän positiivinen ja itsenäinen vaikutus, joka kuitenkin vaihtelee maantieteellisesti painottuen erityisesti Itä-Eurooppaan.

Kolmas tutkimus pyrki erittelemään niin sanottua aluevaikutusta hyvinvoinnin kokemisessa keskittyen Suomeen ja erityisesti ”metropolikontekstiin” (Helsinki-Uusimaa), jossa keskimääräinen elämään tyytyväisyys koetaan kehittyneille maille tyypillisesti muuta maata alhaisempana. Kysymystä lähestyttiin alueellisen ”arvodissonanssi” käsitteen kautta olettaen että yksilön ja alueen välisellä arvo-orientaatio eroilla on negatiivinen vaikutus yksilön elämään tyytyväisyyteen. Tulosten mukaan metropolikontekstissa (Helsinki-Uusimaa) arvostetaan keskimääräistä enemmän suoriutumis- ja valta-arvoja, joilla on yksilötasolla negatiivinen yhteys elämään tyytyväisyyteen.

Tämän lisäksi metropolikontekstilla on moderoiva vaikutus sosiaalisen arvofokuksen ja elämään tyytyväisyyden välisessä yhteydessä. Neljäs analyysi tarkasteli lyhyen aikavälin makrotaloudellisten muutosten vaikutusta elämään tyytyväisyyden sosioekonomiseen kerrostuneisuuteen. Tätä kysymystä tarkasteltiin kansallisessa kontekstissa keskittyen vuonna 2008 alkaneeseen taloudelliseen lamaan Irlannissa. Tulokset osoittavat että talouskriisillä on elämään tyytyväisyyden kerrostuneisuutta syventävä ja monisyistävä vaikutus siten että talouskriisin negatiivinen vaikutus elämään tyytyväisyyteen keskittyi alimpiin sosioekonomisiin luokkiin ja erityisesti alimpaan tulokvartaaliin.

Tutkimusten tuloksilla sekä väitöskirjassa esitellyillä lähestymistavoilla koetun hyvinvoinnin maantieteelliseen tarkasteluun on yhteys useisiin keskeisiin yhteiskuntapolitiikan ja aluesuunnittelun kysymyksiin. Esimerkiksi alueellisen oikeudenmukaisuuden, kestävän kasvun ja sosiaalisen sekä alueellisen koheesion kannalta keskeistä on se miten makrotaloudelliset muutokset koetaan eri sosioekonomisissa ryhmissä eri aluetasoilla. Lisäksi tietoa kaupunki- tai urbaaniin kontekstiin kytkeytyvistä aluevaikutuksista on mahdollista hyödyntää osana alue- ja kaupunkisuunnittelua.

**Asiasanat:** koettu hyvinvointi, hyvinvointimaantiede, elämään tyytyväisyys.

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As usual in case of doctoral dissertations made in our department I need to acknowledge Arttu Paarlahti for his contribution to the cartographic content of this dissertation as well as several other areas of daily life in Kumpula campus. Most certainly, both the quality as well as quantity of doctoral dissertations produced in the Division of Urban Geography and Regional Studies would be significantly decreased without the presence or Arttu. Another person who has greatly contributed to the content of this thesis is Teemu Kemppainen from the Faculty of Social Sciences in University of Helsinki who co-authored three out for four papers in this dissertation. Teemu´s contribution to the content of this dissertation has been of central importance. I´d also like to thank the other co-authors of the papers in this thesis, Associate Professor Jens Fyhn Lykke Sørensen from University of Southern Denmark and Professor Danny Dorling from Oxford University.

When I started my PhD dissertation in 2012 I was privileged to start the work within the Doctoral Programme of Built Environment (RYM-TO). As a funded member of RYM-TO I was able to concentrate on the research work free of financial stress and also had a chance to participate in several international conferences. Special thanks is due to the head of RYM-TO Professor Kauko Viitanen who led the programme with great vision and wisdom. I also wish to thank Jouko Kajanoja and Matti Kuronen for being part of my steering group in RYM-TO. Also, professors Harry Schulman and Mari Vaattovaara need to acknowledged for their assistance while starting my PhD project in RYM-TO.

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Along with RYM-TO another institution that has had a significant impact to this dissertation is Regional Studies Association (RSA). The encouragement in form of different awards from RSA has provided me motivation and confidence while working with a topic that is still a rather marginal within regional studies and human geography. The RSA team including Sally Hardy, Daniela Carl, Lesa Reynolds and several others are wonderful people who have develop RSA into a leading international learned society concerned with the analysis of regions and regional issues.

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Peace out!

In Lonna island , May 10th, 2017

Mikko Weckroth

Contents

## List of original publications

This thesis is based on the following publications. In the text, the papers are referred to by their Roman numerals (I – IV).

**Paper I** Weckroth, M., Kemppainen, T., Sørensen, J. F. L. (2015). Predicting the gross domestic product (GDP) of 289 NUTS regions in Europe with subjective indicators for human and social capital. *Regional Studies, Regional Science,* 2(1), 312-331.

**Paper II** Weckroth, M., Kemppainen, T., (2016). Human capital, cultural values and economic performance in European regions. *Regional Studies, Regional Science*, 3(1), 239-257.

**Paper III** Morrison, P.S., Weckroth, M., (2017). Human values, subjective wellbeing and the metropolitan region. *Regional Studies*. (Accepted 8.5.2017)

**Paper IV** Weckroth, M., Kemppainen, T., Dorling, D. (2017). Socio-economic stratification of life satisfaction during an economic recession: a repeated cross-sectional study using European Social Survey. *Irish Journal of Sociology*, (epublished ahead of print) DOI: 10.1177/0791603517697326

Authors contribution

| | Paper I | Paper II | Paper III | Paper IV |
|---|---|---|---|---|
| Original idea | MW | MW | MW | MW |
| Research design | MW, TK, JS | MW, TK | MW, PM | MW, TK, DD |
| Data analysis | TK, MW, JS | TK, MW | PM, MW | TK, MW, DD |
| Manuscript preparation | MW | MW | PM, MW | MW, TK, DD |

MW= Mikko Weckroth, TK= Teemu Kemppainen, PM= Philip S. Morrison, DD= Danny Dorling, JS: Jens F. L. Sørensen.

# 1 Introduction

## 1.1 Research framework

This thesis is primarily concerned with the correlation and interaction between different quantifiable dimensions of wellbeing and development. These relationships are studied through a geographical lens by focusing on the cross-sectional relationships and patterns emerging through different spatial scales. These societal dimensions cover broad entities such as the economy, culture and the elusive concept of wellbeing, which serves as the primary focus of the thesis. These dimensions are operationalized into different measures of human and social capital, human values, the level of economic performance and objective and subjective measures of wellbeing.

The relationship between these dimensions is examined in both conceptual and empirical terms. In a conceptual sense, the aim is to define certain areas of interdisciplinary overlap in the literatures of regional studies, economic geography and subjective wellbeing. For example, the concepts of human and social capital in the economic literature relate closely to measures of social and personal wellbeing as they are operationalized in the literature of eudaimonic wellbeing (see Paper I in this thesis). There has been little interactions between these research traditions, and while this thesis takes an interdisciplinary approach, it acknowledges that these disciplines use similar concepts and common measures but approach them from different perspectives and assumptions on their mutual relationship.

However, as this thesis is built primarily on cross-sectional analyses, the research design remains primarily descriptive. More specifically, it aims to investigate how these dimensions are associated with each other, instead of focusing on why questions involving strong claims of causality. The empirical content of the thesis is based on aggregate (Papers I and II) and individual level (Papers III and IV) analyses. At an aggregate level, the relationship between dimensions of wellbeing and development is studied on a subnational scale, acknowledging the so-called 'spatial effects' in the data both in technical terms (Papers I and II) and also in a more geographical sense through spatial rescaling of the analysis in order to define patterns and overlap between the different dimensions (Paper II). At an individual level, the study investigates the relationship between objective and subjective measures of wellbeing with a specific focus on the effects of the urban context on SWB (Paper III). Moreover, Paper IV asks whether individual-level socio-economic affiliation (i.e. class) affects how changes in contextual macro-economic conditions are experienced in terms of life satisfaction (Paper IV).

The interdisciplinary framework of this thesis calls for a thorough understanding of different disciplinary perspectives and their central concepts, particularly those employed in empirical investigation. In this framework, one of the underlying concepts is 'development'. First and foremost, the concept of development refers to temporal change from one condition to another, where the lat-

ter is considered in some sense better or more favourable than the former. Furthermore, the development, and associated concepts such as 'developed countries' or 'economic development', suggest, at least implicitly, that development is associated with an increase in the wellbeing of the individuals concerned.

This leads to the fundamental question of how wellbeing is defined and measured (Allardt, 1974; Jordan, 2008; Nussbaum & Sen, 1993; Scott, 2012). Interest in updating the criteria for defining and measuring levels of societal wellbeing was recently reinvigorated by the publication of the so-called Stiglitz Report (Stiglitz, Sen, & Fitoussi, 2009). The report suggested societies to shift their emphasis from objective economic indicators to the subjective evaluations of individuals themselves. Drawing on the insights of this report, a central theme of this thesis is the distinction between objective and subjective measures of wellbeing. Even though this dichotomy does not withstand philosophical scrutiny (Angner, 2009), in an empirical sense the difference is usually defined as follows. Objective measures of wellbeing can be determined from individual or household-level data contained in registers (e.g. income, age or employment status) or from aggregate macro-economic indicators (e.g. Gross Domestic Product), and they cover indicators that are assumed, by an external observer, such as a researcher or policymaker, to define the level of individual wellbeing. These include descriptions of material wealth, income, labour market status or health factors that are considered to influence or determine an individual's level of wellbeing or quality of life.

By contrast, subjective measures are drawn from sample survey data on wellbeing, capabilities, or quality of life as evaluated by the individuals themselves. Decades of psychological research on these measures has demonstrated that they possess adequate psychometric properties, exhibit solid internal consistency and are appropriately sensitive to changing life circumstances (Diener et al. 1999, p. 278). Consequently, the relationship between the objective and subjective at an individual and aggregate level has been of particular interest to the socio-economically orientated branch of subjective wellbeing research (Easterlin, 1974). This thesis builds on this literature, as it investigates this relationship on other geographical scales than those used by conventional individual-level analyses or those using national aggregates.

As an addition to so-called happiness or SWB studies, this thesis borrows concepts and measures from economics and the related sub-disciplines of economic geography and spatial economics. In this study, the economy is understood and empirically approached in two ways. First, the present study employs the measure of Gross Domestic Product (GDP) to define the level of economic performance and development on a chosen geographical scale. Despite its well-known limitations, GDP still serves as the as 'the default' macro-economic measure of economic wellbeing and development. Therefore, in thesis GDP is used as the primary measure of the overall level of economic development on a regional (Papers I and II) and national (Paper IV) scale. Second, the economy is present in the framework of this thesis through the concepts of intangible (social and human) capitals, treated here as variables on the left-hand side of an equation predicting the level of economic performance on a regional scale (Papers I and II).

This thesis is also strongly influenced by cultural studies and more specifically by the modernization thesis, which suggests that societies develop in terms of both culture and economy in a consistent and, to some extent, a path-dependent manner (Inglehart, 1990; Inglehart & Baker, 2000). As there are many possibilities for operationalizing 'culture', this thesis approaches the matter through the concept of 'hu-

man values'. Human values are a set of principles, standards, convictions and beliefs that people adopt as their guidelines for evaluating the activities performed and decisions made by themselves and others (Rokeach, 1973). There are different criteria for measuring these values, but this thesis utilizes the most common measure in the social sciences, Shalom Schwartz's 'Human Value Scale' (Schwartz, 2012). This scale is included in all the rounds of the European Social Survey (Schwartz, 2015), which is the source of the survey data on values and subjective wellbeing used in this thesis.

Finally, in terms of its contribution to economic and cultural studies, the main disciplinary component of this thesis is human geography. However, again there are different strategies for how a geographical of analysis of wellbeing can be constructed, and thus the geographical framework of this thesis is threefold. The geographies of wellbeing and development are constructed through 1) utilizing the location indicator of different wellbeing measurements, 2) visualizing and spatially rescaling the relief maps of different measures of wellbeing, and 3) acknowledging and analysing the effect of context in the relationship between objective and subjective measures of wellbeing.

First, the geography of wellbeing starts by acknowledging that the available datasets on subjective wellbeing contain, to an increasing degree, a certain level-location indicator. This trend is in line with the overall increased interest expressed by policymakers and social scientists in gathering data on subjective wellbeing (Diener & Seligman, 2004; OECD, 2013b; Stiglitz et al., 2009). For example, survey responses in the European Social Survey (ESS), from which this study draws its measures of subjective wellbeing and human values, contain information on the respondents' location on a subnational (NUTS) scale, and there is also a separate survey item investigating the domicile of the respondent. Thus, individual survey responses can then be aggregated to different geographical scales in order to make comparisons with objective economic indicators.

Second, while SWB data with location indicators obviously serve as a precondition for geographical analysis, it is certainly not the end of it. After aggregating responses to certain geographical scale, it is possible to visualize these results, and this interest in making maps is a distinct feature of geography and geographers. While geographers often simply argue that it is always useful to put the phenomenon onto a map, this also enables spatial rescaling while interpreting the patterns emerging from different scales. It thus enables the researcher to detect the spatial nature of phenomena that statistical analyses often neglect or aim to control for in the data. Consequently, this perspective and focus of interest is fundamentally different from that of (spatial) economics, which treats location merely as a source of unobserved heterogeneity (see e.g. Morrison, 2014). For geographers, the spatial heterogeneity of any measure or phenomenon is of special disciplinary interest, and thus it requires further study instead of being treated as a nuisance to be filtered out of the data (see Paper II). In sum, visualizations and spatial rescaling enable more context-dependent interpretations that could otherwise be lost in purely mechanical and statistical analysis.

However, the procedure of filling administrative regions with something 'social' and making maps on different scales can still be considered a rather technical and simplistic understanding of geography (see e.g. Häkli, 2009). Therefore, this thesis perhaps makes its strongest geographical con-

tribution from a third way of constructing the geography of wellbeing and development: a focus on the concept and meaning of 'context'. In essence, human geography is a contextual discipline within the broad field of social sciences. A geographical conceptualization of context can cover a wide range of arrangements between human, non-human, material and technological objects, and it is also open to spatial revision and rescaling. Furthermore, it acknowledges ongoing societal development, i.e. the temporal context (Conradson, 2012). The role of context in this thesis is twofold. First, it is simply a recognition that the cultural and temporal context matters, instead of aiming for the universal and place-neutral interpretations and associations often favoured in spatial economics and regional science. This interest is most evident in the economic sub-discipline of spatial economics that addresses the spatial nature of the economic activities, an area that is of central interest to human and economic geography. However, economists approach the matter with fundamentally different propositions and assumptions, as recently discussed by Jones (2015), Martin (2015) and Peck (2012; 2016). This debate connects to the perennial disagreement between 'geographical economics' and 'economic geography proper' (see e.g. Overman, 2004 and Garretsen & Martin, 2011). This thesis aims to offer a contribution to this debate through its interdisciplinary framework and utilization of SWB measurements.

A second geographical perspective on context is the attempt to measure its effect statistically from hierarchical datasets. This line of inquiry is thus focused on so-called contextual or place effects and often applies the method of Multilevel Modelling (MLM)[1]. This thesis addresses the question of whether certain contexts have an effect on an individual's level of subjective wellbeing. More specifically, this study focuses on the urban or metropolitan context, which stems from the long-standing interest of human geography in the meaning and definition of the 'urban' (Mumford, 1937) and the associated 'way of life' (Wirth, 1938) and 'mental life' of the metropolis (Simmel, [1903] 1976).

During the last five to ten years, this perennial interest in 'urban' has been revitalized by numerous empirical findings showing a relatively lower level of mean life satisfaction in the largest urban metropolitan regions of developed economies (Morrison, 2011; Piper, 2014; J. Sørensen, 2014). This pattern is of specific concern for regional and urban policy-making, as urban areas are regarded as the drivers or 'locomotives' of national economies (see e.g. Moisio & Paasi, 2013; p. 276) and are statistically associated with higher levels of income, education and other socio-economic indicators. This divergence between objective and subjective measures of wellbeing thereby suggests that within an urban or metropolitan context there could be some contextual effects that lower subjective wellbeing. This empirical finding connects to literature discussing the emergence of 'city regionalism' (e.g. Jonas & Moisio, 2016) as a geopolitical process and imaginary shaping the regional policymaking of national and subnational governments.

These three perspectives, economic, cultural, and geographical, constitute the geographies of well-

1 Multilevel modelling (MLM) is a statistical methodology that aims to define contextual effects from various contextual levels in a hierarchical dataset. It has been noted to be a suitable tool for geographical analysis, as it works by specifying models at both a micro (individual) and macro (neighborhood, city, or country) level. MLM has been applied in geographical SWB analysis for example in Ballas (2012). For a recent review of its use in geography see Owen et al. (2016)

being and development that are the focus of this thesis. However, wellbeing is not an entirely new area of interest for human geography, despite the fact that is has been a rather neglected topic (Smith, 1977). Nevertheless, regional studies and human geography have seldom made wellbeing the explicit focus of inquiry; instead, it has been implicitly included in analyses of economic, social and development geography. However, as noted earlier, there has been recent interest within the social sciences in scrutinizing the concept and meaning of wellbeing and, particularly, in acknowledging the societal importance of measuring subjective wellbeing (Stiglitz et al., 2009). It is to this endeavour that this thesis aims contribute by providing an interdisciplinary but fundamentally geographical perspective.

## 1.2 Outline of the study

This thesis continues by describing the geographical perspective on subjective wellbeing measures (1.3). This section describes in more detail the three areas of heterogeneity (intercept, slope and scale) on which a geographical analysis of SWB is based when operating in a multivariate modelling context. Moreover, the specific research questions of this thesis are described at the end of section 1.3.

The second chapter begins with a discussion on so-called objective and subjective measures of wellbeing and the emerging interest in the subjective dimension within the social sciences and policy-making (2.1). In addition, three accounts and related measures in SWB studies (the life evaluations account, the hedonistic account, and the eudaimonic account) are presented. The chapter continues with a brief description of the patterns, theories and disciplines that address the global geographies of wellbeing and development (2.2) and then discusses the disciplinary history of human geography with respect to welfare and social geographies. Chapter 2 closes with a review of the emerging interest of human geography and regional studies in analysing the geography of subjective wellbeing and asks whether this interest could be defined as a 'subjective turn' in wellbeing geography (2.3).

The third chapter describes the interdisciplinary perspective and framework of this thesis. First, some general remarks regarding the strengths and limitations of an interdisciplinary approach are made in section 3.1. Then, the chapter moves on to define and discuss three specific areas (sections 3.2, 3.3, and 3.4) where the value of an interdisciplinary framework for studying the geography of SWB is apparent.

Chapter 4 introduces the data, methods, design and research setting used in the empirical analyses of this thesis. Chapter 5 presents the summary of the results in three sections. Section 5.1 presents the results of the thesis from Papers I and II, which focused on the relationship between different intangible capitals, geography and subjective wellbeing. Section 5.2 reviews the results from Paper III, which analyses the relationship between human values, subjective wellbeing and the metropolitan context in the case of Finland. Finally, Section 5.3 describes the contributions of Paper IV, which focuses on the socio-economic stratification of life satisfaction on a national scale in the

context of Ireland and its recent economic recession. Chapter 6 closes with conclusions (6.1) and a short discussion on the policy relevancy of the results (6.2).

## 1.3 The geographical perspective on subjective wellbeing measures

The approach of this thesis to SWB data and measurements combines interests from various traditions and sub-disciplines in human and economic geography and regional studies. The common denominator, however, is how certain research frontiers within these disciplines can be advanced by using a spatial perspective on measures of SWB. Hence, the main concern is the level of the location indicator of the respondent in sample surveys with questions on SWB. This information varies between different survey designs and datasets and thereby sets limitations for the empirical investigation of more precise study questions. In a geographical dataset of SWB, the focus of a spatial perspective – regardless of the geographical scale of analysis – is threefold. In multivariate modelling contexts, a spatial or geographical perspective on SWB measures can focus on either 1) the intercept heterogeneity of SWB data, 2) the slope heterogeneity of SWB data or, alternatively, 3) the geographical patterns emerging from varying spatial scales of SWB data i.e. scale heterogeneity.

Analyses stemming from the first perspective are primarily interested in varying levels (the intercept in multivariate regression models) of subjective wellbeing. Wellbeing, like any other social phenomena and regardless of the measure used, is not equally distributed in space. In other words, any relief map of SWB will probably be characterized by a certain degree of spatial heterogeneity (Morrison, 2015, p. 279). In order to analyse and map this heterogeneity, this approach utilizes individual responses aggregated to present the mean of a population on a chosen geographical scale[2].

The second perspective is interested in the contextual effects that different geographical scales have on individual-level predictors and correlates of subjective wellbeing. Again, we can assume these effects are located in either a local, regional or national context, depending on research interests and questions and also on the level of the location indicator available in the dataset. In technical terms, this approach is concerned with the variation in the steepness of a regression line – the slope – in multivariate models, which treat measures of SWB as the dependent variable. In general, the broader field of SWB studies has reached a reasonably good understanding of those socio-economic indicators (such as age, gender, and income) which contribute to SWB (for a summary see Diener, Suh, Lucas, & Smith, 1999). However, while there is spatial variation in the levels of SWB, the same factors can also exert different levels of influence in different geographical contexts (Morrison 2014, p. 282). Consequently, the local, regional, or national context may moderate or filter the effect that individual attributes have on subjective wellbeing, and this effect is of specific interest for geographers.

2 Concerns of ecologic fallacy inevitably related to this approach are discussed and examined, for example, in Puntscher et al. (2016). Issues on statistical inference of ESS data regarding their use in regional analysis are also discussed by Piper (2015, pp. 121-123)

This perspective is thus concerned with how much of this slope heterogeneity is related to the geographical context in which individuals are embedded. Technically, depending on the geographical quality of the data, this context can be defined, for example, as a neighbourhood, metropolitan area, or certain region. Technically, the contextual variable can be defined as an aggregated value of relevant survey items (for instance, a level of social capital or trust) in order to present a level of characteristics that presumably affect SWB. Alternatively, the context can be specified as a certain geographical setting, such as the domicile of the respondent (a large city, suburb or the countryside etc.) where the contextual effect is assumed to be located. One example of analyses applying this contextual perspective are studies which have found that the relationship between an individuals' income and life satisfaction (the most common measure of SWB) is weaker in the context of higher economic affluence (Aslam & Corrado, 2012; Easterlin, Angelescu, & Zweig, 2011; Pittau, Zelli, & Gelman, 2010; Stanca, 2010). Another line of investigation following this perspective is found in studies that attempt to define and measure the effect of the 'urban' context on individual life satisfaction (B. J. Berry & Okulizc-Kozaryn, 2011; J. L. Berry & Okulicz-Kozaryn, 2009; Morrison, 2011; Piper, 2014; J. Sørensen, 2014).

The third alternative interest stems from the intercept heterogeneity approach. A relief map of different levels (intercepts) of SWB measurements at a subnational level is likely to be characterized by distinct geographical patterns. In technical terms, there is spatial autocorrelation in the relief map of SWB, indicating that wellbeing is a spatially clustered variable. The question then becomes how to interpret and address this clustering, which can occur at various spatial scales. Outside regional studies or geography, it is common to consider the spatial heterogeneity of any phenomenon exclusively through formal country-level comparison, whereas the geographical approach is more open to considering spatiality on alternative geographical scales.

Concerning the spatial clustering of wellbeing, as the geography of SWB is a rather novel research area, there is a limited amount of literature on the causal mechanism behind the clustering of various measures of SWB. However, as subjective wellbeing measures can be related to any other variable expressing spatial heterogeneity, researchers can draw on technical solutions developed in regional science and spatial analysis. Therefore, a mechanical solution would be to control for these so-called spatial effects (spatial autocorrelation) through certain spatial analysis techniques (for a summary see e.g. Le Gallo, 2014). Another orthodox procedure in the social sciences is to add so-called country dummies to the model, thereby controlling for the 'country-specific fixed effects'. However, as Paper II argues, a more geographical approach is to visualize and interpret the patterns of SWB levels and attempt to determine the most suitable geographical scale for understanding these patterns. In other words, this visual examination would enable the detection of omitted variables or categories missing from the statistical analysis or model that could explain the spatial clustering of the variables (see Paper III). As such, this third application for geographical SWB data is concerned with scale heterogeneity.

This thesis addresses all of the perspectives described above. Regarding the first, the focus is on aggregating various SWB responses to the regional NUTS (Nomenclature of territorial Units for

Statistics) level in Europe. In order to do this, this thesis utilizes European Social Survey (ESS) data that contain a location indictor for each respondent at a varying regional level. In addition, the thesis analyses the association and overlap of this SWB relief map with corresponding levels of economic performance measured in terms of Gross Domestic Product (GDP). Thus, the focus is correlations in space, i.e. the spatial interdependence between subjective and objective measures of wellbeing. This spatial interdependence is discussed and analysed in Papers I and II of this thesis.

Regarding the second perspective, this thesis aims to make a contribution to the literature on the effect of context on SWB by investigating the impact of urban environment or metropolitan context on individual subjective wellbeing. Even though there are obvious reasons for assuming that contextual effects reside in a variety of spatial scales and contexts, the urban context has received most attention in the literature (B. J. Berry & Okulizc-Kozaryn, 2011; J. L. Berry & Okulicz-Kozaryn, 2009; Easterlin et al., 2011; Morrison, 2011; Piper, 2014; J. F. L. Sørensen, 2014). The main inspiration for these analyses has been the persistent finding that living in a large urban centre has a negative effect on individual life satisfaction in developed economies. As the largest urban agglomerations in any given country are also typically the main drivers of the national economy (and also account for higher average incomes at an individual or household level), this perspective also converges with the question of the spatial relationship between different measures of wellbeing – objective and subjective. Despite the fact that this negative effect has been well documented in the literature, empirical analyses have been unable to adequately define its underlying mechanisms and fundamental causes. It has also remained unclear whether it involves a liner relationship related to city size or population density (see e.g. (B. J. Berry & Okulizc-Kozaryn, 2011; J. L. Berry & Okulicz-Kozaryn, 2009) or alternatively a specific effect which the dominant urban agglomeration within a national hierarchy exerts on the level of SWB (e.g. in a case of Piper, 2014).

Regarding the third perspective, the thesis focuses on analysing and comparing the geographical patterns of both objective and subjective wellbeing measures on different geographical scales. The initial step is thus to visualize and analyse the regional-level relief map of SWB measures in Europe. The disciplinary focus of regional studies is subnational scales, instead of taking the national context as the a priori frame selection for the analysis. The question of spatial rescaling is, however, also relevant in ex poste analyses while the optimal frame for analysing the patterns is still open.

In other words, even though the relief map of SWB should be constructed on the smallest scale possible (if the data allow and the sample size is sufficient), the interpretations of the patterns can still be drawn from national or supranational scales. This comparison creates a disciplinary interface between economic geography and spatial economics, which have a different approach to the treatment of spatial patterns, i.e. to autocorrelation in a geographical dataset on any given variable. The geographical approach prefers to seek cultural, institutional or even historical in-

terpretations for the emerging spatial patterns, whereas spatial economics is interested in these patterns so as to filter them out of the analysis in order to reveal a universal relationship and a so-called global model (for a discussion see e.g. Jones, 2015 and Martin, 2015). These perspectives on scale heterogeneity are discussed and empirically compared in Paper II of this thesis.

To conclude, the research questions and specific areas of interest of this thesis could be summarized as follows:

1) How does the spatial relationship between objective (externally acquired) and subjective (self-reported) measures of wellbeing unfold on a subnational scale in Europe? Answers to this question are sought from the visualization of the spatial variance of the relevant variables and through multivariate regression analyses including various control variables as well as controls for spatial autocorrelation of the data. Papers I and II apply a similar conceptual and empirical framework for analysing the different levels – the intercepts – of SWB measures. Paper II also discusses the most relevant scale for understanding the spatial pattern of these levels. These analyses are embedded in the context of 289 NUTS regions in 24 European countries.

2) A large body of literature testifies to relatively lower life-satisfaction in the largest urban agglomerations within developed economies compared to the other regions in a country. Thus, Paper III examines this divergence of objective and subjective measures of wellbeing in subnational scale and asks to what extent this pattern can be explained by individual-level 'value dissonance', i.e. the degree to which people feel out-of-place in local contexts such as a metropolis because their values differ from those held by the majority. This paper thereby focuses on the slope heterogeneity in spatial SWB analyses, as it examines the effects of context on SWB. This analysis is embedded in the context of Finland, with a specific interest in its 'capital province', the Helsinki-Uusimaa region.

3) The perspective in the fourth (IV) paper supplements the above analyses on the relationship between subjective and objective measures of wellbeing. First, it utilizes a repeated cross-sectional data, in contrast to the reliance on a single year (6th round of ESS data from 2012) in Papers I–III. Moreover, the analysis adds more detail by studying spatially varying intercepts (levels) of SWB. These analyses often represent a one-dimensional (vertical) SWB value referring to an aggregate of a population as a whole. By contrast, Paper IV is interested in subgroup-specific changes in the relationship between objective and subjective measures of wellbeing. Paper IV asks how macro-economic changes (in terms of economic recession) are reflected in the levels of SWB in different socio-economic layers within a certain temporal frame? This analysis of the socio-economic stratification of life satisfaction is embedded in the national context

of Ireland, and the analysis covers a period between 2004 and 2014.

# 2. Geographies of wellbeing and development

## 2.1. Objective and subjective measurements of wellbeing

The social sciences have a long history of theorizing and conceptualizing wellbeing and happiness. However, wellbeing remains one of the most multidimensional subjects of academic thought. The perennial elusiveness of wellbeing is intensified by the fact that each discipline tends to emphasize different concepts, measures and perspectives. For example, economists tend to relate wellbeing primarily to material resources and consumption (Bruni & Porta, 2007), whereas psychologists see wellbeing and happiness as an individual mental or emotional state defined by positive or pleasant emotions and a lack of negative emotions (Seligman & Csikszentmihalyi, 2000). Philosophers, for their part, have contributed by theorizing on the foundations and definitions of happiness and a good life (Nussbaum & Sen, 1993). One of the most influential philosophical theories of wellbeing, still widely read and applied today, was propounded by Aristotle, who treated happiness as active process of practising certain virtues rather than as a constant state of pleasure (Aristotle, 2011).

The primary inspiration for this thesis lies not in theories or concepts, but in recent advancements in the operationalization of wellbeing and happiness, i.e. translating the abstract concept into concrete, measurable variables. In practice, this has meant an increasing academic interest in gathering sample survey data on evaluations of personal wellbeing from individual themselves and subsequently trying to explain the variance in their responses in a multivariate modelling contexts. This mounting body of research on subjective measures of wellbeing, often referred as 'happiness studies', is usually seen as part of a burgeoning dissatisfaction with macro-economic measures, such as Gross Domestic product (GDP), as comprehensive indicators of quality of life, wellbeing, or happiness (Easterlin, 1974; Helliwell, Layard, & Sachs, 2012; Stiglitz et al., 2009). Consequently, empirical analyses have placed a significant focus on the relationship between objective and subjective measures, i.e. the divergence or asymmetry between the two dimensions of wellbeing. A well-known example of such research is a seminal study by Richard Easterlin (1974), who suggested that among developed nations self-evaluated life satisfaction is not necessarily associated with an increase in per capita GDP.

Moreover, proponents of subjective measurements of wellbeing suggest that these measurements are able to account for various externalities associated with economic growth (Helliwell et al., 2012; Layard, 2006; O´Donnell, Deaton, Durand, Halpern, & Layard, 2014). From a large-scale, long-term historical perspective, the economic development of societies has been associated with the parallel processes of modernization and urbanization, which furthermore are associated with systematic shifts in the division of labour. Consequently, various externalities associated with economic growth can be analysed alongside the subjective dimension and measures of wellbeing. These externalities can cover a wide range of phenomena, ranging from certain physical urban amenities, such as a lack of green space (Ambrey & Fleming, 2013), increased traffic and com-

muting time (Stutzer, 2008), or certain psychological symptoms, such as stress caused by labour-market uncertainty (Carr & Chung, 2014). Accounting for these externalities may thus offer more detailed definitions and indicators for societal development than macro-economic measures such as Gross Domestic Product (Stiglitz et al., 2009). In other words, economic measures based solely on monetary factors could be considered 'external' and secondary measures, whereas subjective evaluations drawn from sample surveys can offer primary, 'internal' data, and they are thus important complementary measures of wellbeing and quality of life (Morrison, 2011).

The reliability of such measurements has proven sufficient for their inclusion in SWB[3] measures as the dependent variable in various equations addressing specific disciplinary interests. For example, the concerns of economists over the reliability of SWB measures have been alleviated by studies showing that (individual or household) income is positively associated with life satisfaction (Deaton, 2008), whereas unemployment has a negative effect (Clark & Oswald, 1994; Clark, 2003), just as standard micro-economic theory would suggest. In medical research, subjective measures of wellbeing are found to be closely related to the clinical assessments of wellbeing assessed by health professionals (Okun, Stock, Haring, & Witter, 1984). Furthermore, social-psychiatric research has documented a strong association between low life satisfaction and depressive symptoms in healthy adults (Koivumaa-Honkanen et al. 2004), as well as between life dissatisfaction and an increased risk of suicide (Koivumaa-Honkanen et al. 2001).

However, the interest in SWB measurements cannot be regarded as a uniform research agenda; instead, the interdisciplinary field of subjective wellbeing research suffers from overlapping concepts and measures (Jayawickreme, Forgeard, and Seligman 2012; Kristjansson 2010). The field of empirical happiness studies is usually categorized according to three accounts and related measures: (1) the life evaluations account (evaluative measures), (2) the hedonistic account (affect measures) and (3) the eudaimonic account (flourishing and functioning measures).

The first, the life evaluations account, is concerned exclusively with overall life satisfaction. Thus, wellbeing is measured with a single-item question, such as 'taken together, how satisfied are you currently are with your life as a whole these days?' with a scaling from 0 to 10. Because of its apparent simplicity and cost-efficiency as a survey item, life satisfaction is the most frequently used measure of subjective wellbeing in the social sciences. The second, the hedonistic account, defines happiness and wellbeing in terms of pleasure attainment and pain avoidance. Thus, it is interested in the short-term intensity of negative or positive feelings, in contrast to evaluative and cognitive measures of overall life satisfaction. The third, the eudaimonic account, draws on the classical writings of Aristotle (Aristotle, 2011) and focuses on meaning and self-realization, defining wellbeing in terms of living and functioning according to one's individual potential and mental capacities (Ryff & Singer, 2008). The eudaimonic account is sceptical about the ability of hedonistic and life satisfaction measures to capture the multidimensional nature of psychological wellbeing and the human

3 In this thesis, subjective wellbeing (SWB) research is treated as an umbrella term, which covers all empirical analyses operating with sample survey data and treating any SWB measure as the dependent variable. A more detailed introduction to different measures of SWB and their theoretical foundations can be found, for example, in Ryan & Deci, (2001), OECD (2013b) and Kristjansson (2010).

potential for optimal and active living.

As the three traditions are demonstrably laid on different philosophical foundations and assumptions on the nature of wellbeing, communication between the different accounts has been rather limited (Jayawickreme, Forgeard, & Seligman, 2012). For example, economic analyses utilizing SWB data have primarily focused on the evaluative and hedonistic measures, following the rationale of mainstream economics, which is built on an individualistic and atomistic view on wellbeing, decision-making, and utility. In turn, the majority of analyses in regional studies and science on SWB have, with a few exceptions (Perrons, 2012 and Paper I of this thesis), also focused exclusively on the evaluative account and measures of life satisfaction.

In conclusion, even though the increased interest in individual-level SWB measurements may indeed converge with the neoliberal agenda (Sointu, 2005) and SWB analyses and survey designs are evidently characterized by an ethnocentric perspective (Christopher & Hickinbottom, 2008), considering SWB measures as reliable and relevant instruments is now widespread throughout the social sciences. As a result, SWB measures are applied to test and advance the hypotheses and research questions relevant for each discipline. Furthermore, an interest in using SWB measures to inform policymaking has been expressed at the supranational (OECD, 2013a; OECD, 2013b) and national level (Office for National Statistics, 2015).

However, in the current thesis interest in SWB measures is focused on georeferenced SWB data, i.e. sample survey data which include a certain level-location indicator for the respondents. The thesis thus examines how these measurements can help address questions of human geography as a broad but also specific area of interest within the literatures on regional development, urban studies and spatial justice and inequality. More specifically, the utilization of geographical SWB data can shed additional light on many of the central areas of interest in human geography and regional studies. These include questions such as how to define and measure regional development (Pike, Rodríguez-Pose, & Tomaney, 2016), what kind of wellbeing regional economic growth generates, and for whom (Pike, Rodríguez-Pose, & Tomaney, 2007), what makes a 'happy city' (Ballas, 2013), and what is the role of contextual factors, for example the level and quality of governance (Rodríguez-Pose & Maslauskaite, 2012) in the relationship between individual socioeconomic characteristics and subjective wellbeing.

To conclude, the primary concern of this thesis is how the study of subjective wellbeing can be utilized in regional studies and human geography. The possible contributions made by a geographical perspective on SWB are highlighted in the empirical analyses of the four sub-studies: Papers I-IV of this thesis. Moreover, the thesis also considers how the spatial perspective, based on human geography but embracing an explicitly interdisciplinary approach, can contribute to the broader field of subjective wellbeing research.

## 2. 2 The global geographies of wellbeing and development – patterns, theories and disciplines

Just like any social and cultural phenomenon, wellbeing – regardless of definition and measure – is not equally distributed in space, either globally or on a national or subnational scale. However, neither is it arbitrarily distributed; rather, a relief map of wellbeing exhibits spatial patterns. For a study attempting to understand the landscape of development and wellbeing, the social and political sciences offer an abundance of theories and perspectives. The question then becomes how far back in history one wants to reach and which disciplinary perspective one should apply.

From a global long-term historical perspective, there are a few main narratives from which to draw. One is offered by Jared Diamond, who proposed a biological and historical explanation for the present global patterns of development. Diamond argued that it was biological advantages such as the domestication of certain plants and animals that gave the Eurasian peoples the relative advantage over other civilizations (Diamond, 1998). This biological and perhaps slightly deterministic perspective was later criticized by the economists Acemogly and Robinson (2012), who aimed to trace the origins of the power, prosperity, and poverty of nations and argued that instead of biological advantages it is political and economic institutions that are the underlying cause of the long-term success of societies. Another, and fundamentally geographical, explanation for global patterns of uneven development is Immanuel Wallerstein's 'world system theory', which interprets global patterns though a division into core countries, semi-periphery countries, and periphery countries (Wallerstein, 1974). In Wallerstein's theory, it is the persistent exploitation of the peripheries by the core regions that is the essential mechanism behind global patterns of uneven development.

This brief introduction to the above-mentioned 'grand' theories in the geography of wellbeing and development shows that the majority of studies on spatial patterns of wellbeing and development have been conducted by scholars other than geographers. However, the concept of wellbeing is also inevitably included in the discipline of human geography. It is implicitly included, even though seldom explicitly discussed, in most sub-disciplines of human geography, such as development geography, economic geography, and geographies of health. However, somewhat surprisingly, the concept of wellbeing itself has seldom been placed at the centre of geographical analysis.

The rather limited history of wellbeing as a central concern of geographical thought is usually traced back to the welfare and social geographies of the 1970s and the work of Smith (1977) and Knox (1975). The most important milestone within this tradition is usually considered to be Smith's Human Geography: a welfare approach (1977). In this book Smith aimed at no less than a paradigm change, as his 'welfare approach' placed people and their wellbeing back at the centre of human geography. Smith's argument was constructed on what he termed the 'self-evident truth' (Smith 1977; pp. 362-363) that 'as human beings are the object of our curiosity in human geography, the quality of their lives should be of paramount interest'. In other words, welfare geography argued

that the wellbeing and welfare[4] of a society as a spatially varying condition should be the focal point of all inquiry in human geography.

Methodically, the welfare and social geographies of both Smith and Knox built on the social indicator tradition prevailing at the time in the US, which was part of the quantitative turn in the social sciences (Nayak & Jeffrey, 2011). At a technical level, Smith and Knox aimed to construct 'territorial social indicators' for measuring spatial inequalities of wellbeing on regional, metropolitan and neighbourhood scales. Even though it employed solely objective indicators of wellbeing, Smith's welfare approach contained a detailed theoretical discussion of the definitions of quality of life, and it also made a clear distinction between human needs and wants (Smith 1977; pp. 27 – 31). This notion could be considered the main feature separating the welfare geography of Smith from the welfare economics it was designed to challenge.

In the theoretical framework of Human Geography: a welfare approach, Smith (1977; p. 31) also acknowledged a then influential work by the Finnish sociologist Erik Allardt, who had conceptualized wellbeing into three dimensions: having (needs related to material resources), loving (needs related to social relationships and interaction) and being (the need for self-fulfilment and respect as a member of society). Allardt´s (1977) empirical analysis compared the population in the Nordic countries based on these three dimensions. In his empirical analysis, Allardt used an objective indicator of the fulfilment of material needs (having), but he used subjective indicators for loving and being drawn from sample survey data of the population.

The 1970s, when both Smith's welfare approach and Allardt's comparative study were conducted, was a period in the social sciences when the first analyses of SWB survey data began to receive broader attention as empirical instruments. A notable example of this was Easterlin's study (1974), which later inspired a whole sub-discipline, now called 'happiness economics' (Bruni & Porta, 2007). Consequently, Smith was also aware of the recent theoretical and empirical advances in subjective wellbeing indicators within the social sciences. However, regarding the possibility of applying these indicators to a geographical analysis of wellbeing, Smith wrote that 'despite the possibilities of this approach it is as yet experimental and expensive to undertake given the sample size needed to reveal spatial trends' (Smith, 1977: p. 31-32).

This notion from the late 1970s establishes the connection between the recent renewed interest in SWB measures and the broader history of the geography of wellbeing as a disciplinary concern. Recent years have witnessed a significant increase in the availability of SWB datasets containing a location indicator and thus enabling a geographical framework. In other words, we currently have access to a relatively wide body of sample survey data on SWB containing some form of respondent location indicator. Therefore, the increased availability of geographically referenced datasets on SWB allow an analysis of spatial trends for both objective and subjective measures

4 As Smith built the theoretical foundations of the welfare approach in close relation to welfare economics, he used the concepts of welfare and wellbeing interchangeably. As economists relate wellbeing primarily to material resources, the term welfare has a connotation which refers to the distribution of these resources. Smith's welfare geography, however, was not restricted to objective material conditions of wellbeing.

of wellbeing and their mutual comparison. This is exactly what Smith called for and what Allardt performed, although the latter was empirically restricted to a national scale.

The importance of the welfare approach stressed by Smith was also a part of the 'relevance' discussion debated within human geography at the time (see e.g. Paul, Knox, & Smith, 1995). The key argument in this debate was that actual people and their values and experiences should be placed at the centre of the geography of human activity instead of focusing on an epistemological and theoretical debate on space, regionalism and other abstract concepts. As earlier remarked, Smith's answer to this concern was to place the concept of wellbeing at the centre of human geography, and, in Smith's view, this was to ensure the societal relevance of the discipline as a whole.

Consequently, the recent renewed interest in measures of subjective wellbeing also connects with the relevance discussion in human geography. This discussion is rooted in the quantitative revolution of the 1970s, which at the time was criticized by researchers applying a qualitative perspective, who worried that the application of formal theories, model building and quantitative analysis would lead to human beings, whether as individuals or groups, disappearing from view. These early critiques were worried that quantification and the extensive use of models in human geography was based on uniform and narrow assumptions about human subjects and agency (Nayak & Jeffrey, 2011). Thus, the use of SWB metrics offers the possibility to stimulate and reinvigorate this academic debate.

In fact, if one accepts an adequate level of validity for SWB measurements, it could be argued that utilizing subjective experiences of wellbeing (the nature of survey data) inevitably ensures a 'real world contribution' (Markusen, 2013) to the analysis, as the experiences of individuals themselves are acknowledged. As such, SWB measures are connected to the relevance of the social sciences as a whole, as they are concerned with the subjective expressions of individuals, even though the empirical analysis applies a quantitative and 'model-building' approach. By concentrating on the subjective experiences of individuals, SWB research may thus work as a bridge between quantitative analyses focusing on 'formal theories and model building' and a more qualitative approach with a greater emphasis on subjective perspectives.

To conclude, wellbeing has been a key concern of human geography for some time, but empirical analyses have mainly operated with objective indicators. However, in recent years there has been an increasing interest in SWB measures among regional scientists (Aslam & Corrado, 2012; Morrison, 2011; Pittau et al., 2010; Rodríguez-Pose & Maslauskaite, 2012; Stanca, 2010) and geographers (Atkinson, Fuller, & Painter, 2012; Ballas & Dorling, 2013; Conradson, 2012). Thereby, one is entitled to ask whether this mounting interest could represent a 'subjective turn' in the measurement of geographical variations of wellbeing.

## 2.3 The 'subjective turn' in wellbeing geography

Despite mounting interest throughout the social sciences in collecting and analysing measures of SWB, regional scientists and geographers have been relative slow to adopt the agenda (Ballas & Dorling, 2013; Gray, 2012; Morrison, 2014; Tomaney, 2015). It is only within the last five or so years that regional science and studies have begun to acknowledge the unique way in which the study of subjective wellbeing might contribute to regional studies and human geography (Morrison 2015, p. 288). One of the first comprehensive inquiries was conducted by Gray, Lobao & Martin (2012), who note that regardless of increased interest in redefining the metrics through which the economy and societies are measured and understood, subnational variations of wellbeing are substantially less studied than cross-national variations (Gray, Labao & Martin 2012, p. 3). Similar observations were made by Ballas & Dorling (2013), who state that the question of the extent to which where we live affects how we feel – i.e. whether geography matters when it comes to happiness – has failed to receive the attention it deserves in the growing body of interdisciplinary research on the determinants of SWB.

Morrison (2015) also highlights the underexploited potential of SWB data when addressing the relationship between regional growth and wellbeing. Morrison observes that despite the impressive growth in what is now routinely referred as the 'happiness literature', relatively little attention has been paid to wellbeing in a subnational context (Morrison 2015). Morrison also underlines the unusual opportunities offered by subjective wellbeing measures for regional studies, as they enable researchers directly to address the twin concerns of the discipline: the spatial dimension and the role of public policy (ibid, p. 278). One could also add that as one of the central concerns in economic geography is to analyse the causes and consequences of economic growth at a subnational level, integrating SWB measures into these analyses has significant potential. More specifically, SWB measures can contribute to the literatures on economic geography, regional growth, and territorial or spatial inequalities as they allow the detection of spatial distributions of wellbeing that are not present in market-based data.

As such, the issue of objective and subjective measures of wellbeing and development is connected to the mediating role of public policy and governance (Rodríguez-Pose & Maslauskaite, 2012). If one is to treat measures of SWB as reliable data, they could be considered indicators of the 'end results' by which policy makers at a regional, national, and supranational level could assess the efficiency of their policies. Furthermore, if context actually affects the way individual-level attributes and resources are converted into subjective wellbeing, this knowledge should be of paramount interest to policymakers concerned with the allocation and distribution of (usually material or monetary) resources to different socio-economic groups and regions. Moreover, SWB analyses can be applied to supplement conventional cost-benefit analyses, as suggested by Deaton in O´Donnell et al. (2014).

The connection between SWB measurements and public policy has also been recognized by the geographer John Tomaney (2015) while discussing the growing interest in understanding local and regional development in terms of human wellbeing. After concurring with the claim that there have

been relatively few attempts to develop SWB indicators on a local and regional scale, Tomaney acknowledges the obvious connection between policy making and the measurement of subjective wellbeing, noting that 'the use of wellbeing metrics is designed to inform better policy-making by highlighting how economic growth translates into improved "non-economic" outcomes and whether development is shared among groups and place' (Tomaney, 2015, p. 6).

To conclude, despite being a relatively novel field of research, the literature on the possible synergies between SWB, regional studies, and human geography is constantly growing and receiving increasing attention from policymakers. This chapter has reviewed the possibilities offered by integrating SWB into geographical analysis. Ultimately, the integration of SWB measures into regional studies and human geography could be used to reinvigorate the agenda of Smith's welfare geography, and it also resonates with more recent concerns about the 'policy distance' and 'real world contribution' of regional studies (Markusen, 2003). In technical terms, it can offer tools for policymaking on various spatial scales and contexts by addressing issues such as territorial inequality, social cohesion and spatially uneven development.

However, by now it should be apparent that the broad framework of the geography of SWB inevitably involves a wide range of disciplines, perspectives and measures. Furthermore, it is clear that the empirical tools and metrics applied in spatial SWB measurements have been developed outside human geography, mainly in psychology and social psychology. Thus, this thesis argues that a research agenda for the geography of SWB must be built upon an explicitly interdisciplinary approach. Consequently, the next chapter aims to define and analyse certain benefits, risks and limitations embedded in such an approach.

# 3. An interdisciplinary perspective on the geography of SWB

The main perspective and point of departure of this thesis is, at heart, geographical. However, the thesis operates in close interaction with neighbouring fields or sub-disciplines, such as regional studies and science, spatial economics, economic geography and cultural geography. For example, the indicators for regional economic performance, such as GDP, R&D expenditure and the unemployment rate, with which spatial variance is analysed together with SWB measures in Papers I and II are standard measures in economic geography and regional science. However, indicators for subjective wellbeing (although empirically overlapping with measures of social and human capital) have been developed by a long line of empirical research within psychology and sociology and are embedded in the theoretical foundations of a good life and virtues discussed in classical philosophy (Aristotle, 2011; Kristjansson, 2010). This mix of measures and theories makes the analysis of wellbeing and happiness inevitably an interdisciplinary enquiry.

As a result, as geographical analysis of SWB data is still very much an emerging and evolving field of research, this thesis employs an explicitly interdisciplinary focus. It utilizes the conceptual and empirical advances of disciplines with a closer relationship to theories and concepts of wellbeing. The value added by this thesis is thus derived from applying a spatial perspective to SWB measurements, something that other disciplines often neglect. As we are dealing with a relatively new measure in geographical analysis, if not a new concept, there is no existing paradigm to apply or central theory from which to draw. This again argues for an interdisciplinary approach. In other words, due to the limited history of wellbeing as a central concern of human geography, there is no dominant theory of how to understand and interpret its spatial nature or variations in space.

There are, instead, competing – and sometimes controversial – disciplinary perspectives in related debates operating with more objective measures of wellbeing development. For example, agglomeration economics or New Urban Economics (NUE) (McCann, 2014) sees the relief map of economic performance as the result of spatial sorting of individuals, and thus the spatial divisions of wellbeing and utility are characterized by various equilibriums and trade-offs. By contrast, Evolutionary Economic Geography (EEG) tries to understand spatial variations in economic performance as the result of long-term – to some extent path-dependent – paths and processes (Boschma & Frenken, 2011; McCann, 2014). Both of these perspectives could be applied to the spatial analysis of subjective measures of wellbeing and development. However, as noted earlier even though these two perspectives apply a spatial focus to the economy, they have rather different points of departure in their empirical analyses, with different assumptions on the nature of the phenomenon under investigation. This again calls for an understanding of the specific rationales behind disciplinary insights and assumptions.

However, an explicitly interdisciplinary approach also entails some limitations and requires words of caution. For example, utilizing concepts from other disciplines can easily result not only in

simply 'appropriating' certain concepts and measures but also in ignoring the theories and intellectual tradition behind them (Abbot, 2001; Klein, 1990; Strober, 2011). Thus, jumping from one concept and paradigm to another can result in an empirical framework based on a 'pick and mix' of concepts as well as ad hoc interpretations of the results.

In fact, scholars have claimed that regional studies and economic geography suffer from such an inconsistency, as their focus has lurched from one concept to another (Martin 2015, p. 255). The 'buzz' in regional studies has recently shifted from regional innovation systems, learning regions, business clusters and smart or creative cities to a current focus on regional resilience. A seminal paper in this (self-)criticism of regional studies was written by Ann Markusen (2003), who voices concerns, besides the policy distance mentioned earlier, about the use of 'fuzzy' and overlapping concepts and loosely defined assumptions of agency and causality. According to Markusen (2003), these faults are often embedded in both the empirical analysis of regional studies research and the policy relevance drawn from the results.

Consequently, this thesis attempts to recognize these concerns by applying an explicitly transdisciplinary focus. Moreover, the thesis openly acknowledges both the advantages and risks embedded in an interdisciplinary approach. Tackling the whole conceptual 'fuzziness' (Markusen, 2003) of regional studies is obviously beyond the scope of this thesis; however, it is crucial to acknowledge the most important characteristics, possibilities, and concerns of an interdisciplinary approach when interweaving perspectives and measures from several disciplines. Thus, this chapter continues by describing the general benefits of an interdisciplinary approach before specifying three areas where the advantages of interdisciplinarity in the geography of SWB are most apparent.

## 3.1 The geography of SWB – an ideal target for an interdisciplinary approach

The benefits of an interdisciplinary approach[5] are thoroughly discussed within studies of interdisciplinarity (Lyall, 2011; Repko, 2008; Strober, 2011). Interdisciplinarity is often justified by its effectiveness in tackling complexity in science by challenging the fragmentation of knowledge (Sommerville & Rapport, 2000). Interdisciplinarity has also been defined as the investigation of phenomena with complex, heterogeneous domains and a hybrid nature of non-linearity and reflectivity (Balsiger, 2004). By transcending the borders of academic disciplines, interdisciplinarity becomes a context-specific negotiation of knowledge which accepts a certain degree of uncertainty residing in different contexts and disciplines (Klein, 1990).

Thus, an interdisciplinary research perspective seems particularly apt for defining and measuring wellbeing, as anything as elusive as wellbeing or human happiness is surely a phenomenon with complex and heterogeneous domains and a hybrid nature of non-linearity and reflectivity. When dealing with such a slippery concept as wellbeing, the view from any single discipline is nec-

5 Approaches involving several disciplines are often classified as either cross-disciplinary, interdisciplinary, and transdisciplinary, terms which each suggest a different level of interaction (and mixing) between disciplines (Klein, 1990). For the sake of clarity, this thesis uses the term 'interdisciplinarity' as an umbrella concept referring to all of these classifications.

essarily too narrow, as it is limited to a certain set of assumptions, theories, and methods regarding the nature of the phenomenon. Put crudely, an economic perspective might be overly fixated on a narrow perception of utility as an indicator of wellbeing (Easterlin, 2004; Nussbaum & Sen, 1993), while psychology is overly fixated on the individual level and the macro-environment (Oishi, 2015) and sociology often tends to overlook economic measures and explanations (Smelser & Swedberg, 2005).

To conclude, after offering some justifications for an interdisciplinary approach, this thesis now narrows the focus to interdisciplinary SWB geography and attempts to define three areas where an interdisciplinary perspective on the geography of SWB would be beneficial.

## 3.2. Geographies of intangible capitals and subjective wellbeing – tacking conceptual overlap and the fragmentation of knowledge

This section first focuses on the concepts of social and human capital, then it describes their use in economic geography, before finally discussing their connection and overlap with the concepts of social and personal wellbeing as they have been recently appeared in the field of SWB research (Huppert, Marks, Siegrist, Vazquez, & Vitterso, 2014). The aim is to show that this overlap is a good case of the fragmentation of knowledge, as various disciplines have been operating with exactly the same measures (such as measures of subjective experiences of ‘social trust’ or ‘social wellbeing’) but from different disciplinary perspectives.

First, the concept of social capital is located at the disciplinary interface between economics and sociology (Nee, 2005). The emergence of the concept is usually traced to the 1980s and the revival of economic sociology (Smelser & Swedberg, 2005). The term ‘social capital’, however, was first defined in the 1970s, when a seminal study by the sociologist Mark Granovetter (1973) who divided it into weak and strong ties, which later develop into ‘bridging’ and ‘bonding’ social capital. As a concept, social capital has also been aptly termed a ‘Trojan horse’, a decoy that can (and has been) used to lure economists into developing an interest and understanding of the social dimension of a society (Noro, 2016, p. 137).

From a geographical perspective, a notable extension to the social capital thesis was made by Putnam et al. (1993), who used the concept to explain the more successful integration of civil society and the state in the northern Italy, a phenomenon that accounts for the north-south divide in the Italian economy. These claims were then picked up by economic geographers, with Holt (2008) and Bathelt & Glückler (2013) providing a description of this so-called institutional change within the discipline. As a generalization, social capital is seen to be relevant in spatial nature of economy because its presence in nations, regions, or cities creates favourable local conditions for economic activity (Rodríguez-Pose, 2013).

If the literature on social capital has long sought conceptual coherence and the most valid measure, the case is even more evident in the literature on human capital. As a concept, human capital has generally been used to denote a wide collection of attributes embedded in individuals in a popula-

tion but treated as a collective good, including knowledge, talents, skills, abilities, experience, intelligence, training, judgment and competence (Romer, 1990).

In geographical analyses, 'human capital' has remained a rather loose concept, and empirically it has been approached as 'skills'(Glaeser & Saiz, 2004; Glaeser, Ponzetto, & Tobio, 2014) or 'creativity' (Florida, 2008; Florida, 2002; Florida, 2005). Despite the fact that the concepts of skill and creativity refer to cognitive assets or characteristics possessed by an individual[6], most empirical analyses have chosen to rely on proxy measures for human capital. Thus, empirical analyses have been based on either level of education or a classification of certain occupations. The first approach assumes that level of education is a proxy measure of all that is relevant for human capital, whereas the latter aims to define some creative occupations where a large share of human capital (and creativity) is required (for critical review of this perspective see Paper II of this thesis).

This study adds yet another angle to the already fuzzy conceptual landscape of intangible – social and human – capitals. First, it suggests that measures of personal and social wellbeing, as they are operationalized in the 6th Round of the European Social Survey (ESS) questionnaire, can be treated as subjective indicators of social and human capital. The wellbeing module of the latest 6th Round of European Social Survey (ESS) understands social wellbeing in terms of thick and thin social relations (Huppert, Marks, Siegrist, Vazquez, & Vitterso, 2014). Hence, social wellbeing overlaps significantly with the concept and measures of social capital used in economic analyses (Beugelsdijk & Van Schaik, 2005; Helliwell, 2003; Knack & Keefer, 1997; Sørensen, 2014a). Furthermore, personal wellbeing can be treated as a subjective indicator of many of the concepts discussed in the human capital literature, such as competence and resilience (Romer, 1990), which have been examined in different geographical contexts. A more detailed discussion on the overlap of these concepts and measures can be found in Paper I of this thesis.

An additional contribution of this thesis is to explore more thoroughly the concept of human capital and its connection to cultural values. Paper II applies a more cultural perspective and argues that the presence of certain cultural values can be regarded as 'value based human capital'. This approach suggests that it is the aggregated level of these values that defines the economic incentives and motives of economic agents and is thereby associated with economic performance of regions and cities. This approach resonates with classic works of economic sociology, such as Weber (1904), who argued that it is the social and cultural context that defines the incentives and action of individuals. These interdisciplinary debates between sociology and economics are empirically addressed in Papers I and II of this thesis.

To conclude, this section has attempted to identify and explore a case of the 'fragmentation of knowledge' where an interdisciplinary approach could be used to define and detect gaps in knowl-

6 A critical review of these 'orthodox' measures of human capital is offered by Bode & Perez-Villar (2014), who acknowledged the work of a small number of labour economists who have begun to measure human capital directly through personality traits and cognitive abilities. However, these organization-level measurements have not been transferred to an aggregate level that could be used in regional or geographical analyses.

edge. Ignoring these gaps and areas of overlap between disciplines can lead scholars from different disciplines to operate with same measures but from different assumptions about the nature of the phenomenon under investigation and its causality and underlying mechanisms. Thus, a more interdisciplinary approach would enable the cross-fertilization of ideas (Strober, 2011) and avoid an overly narrow perspective caused by the fragmentation of knowledge (Klein, 1990).

## 3.3 Considering the role of context in the geography of SWB

As discussed earlier, regional scientists and human geographers have been relatively slow to adapt SWB measurements as tools of analysis. Another discipline that has been slow to adopt the advances in SWB research is sociology[7]. By contrast, psychology and economics have dominated this field (Wolbring et al., 2013) and what is worth noting here is that both of these disciplines share a rather atomistic and individualistic focus. Consequently, they could be regarded as having a limited interest in the socio-economic, cultural or local context and its role in SWB measurements (Bruni & Porta, 2007; Oishi, 2015). Hence, as this chapter argues, defining context and examining its potential effects on SWB is an important area where the geographical perspective can contribute to the overall SWB research tradition (see also Conradson, 2012; Morrison, 2014).

Psychology has long had an interest in context, but its definition rarely extends beyond the social context of the family or workplace or the local physical context, such as an individual's immediate surroundings (see e.g. Oishi, 2015). In other words, environmental psychology has focused solely on the so-called microenvironment (Oishi, 2015, 645). Therefore, the discipline's use of societal indicators that are relevant for a regional or macro-economic analysis (such as unemployment rate, level of economic performance etc.) has been limited[8].

In addition to psychology, economics has also been eager to utilize SWB data. However, from a geographical perspective, economic analyses and theories often seem to operate in a decontextualized and aspatial environment (see e.g. Jones, 2015; Peck, 2012; Peck, 2016). For example, from the perspective of spatial economics, any given location is no better in absolute terms than the next, as individuals are compensated by other factors and thus spatial equilibrium prevails. Geographers, however, are more willing to consider a large variety of contexts on different geographical scales ranging from local to global while analysing the spatial nature of economics and economies. Geographical conceptualizations of context can cover a wide range of arrangements between human, non-human, material and technological objects, all of which are open to revision and also acknowledge ongoing societal development (Conradson 2012, p. 26). In other words,

7 The absence of sociologists from the SWB literature was noted by Wolbring et al. (2013), who searched for studies with a focus on life satisfaction, happiness or subjective wellbeing in five of the most important international sociological journals and found only eight articles on this topic published between 2000 and 2010. This number is relatively small, given the almost exponential growth in interest in SWB research within the social sciences as a whole during recent decades.

8 A notable exception to the micro-environment approach is a recent study by Rentfrow, Jokela, & Lamb (2015), who investigated the spatial variance of the Big Five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) in the UK. The analysis compared cross-sectional associations of personality traits with certain political, economic, social, and health outcomes on a regional scale. The results of this study are significant for research on selective migration, person-environment fit and also the geography of wellbeing and values at large.

individuals are embedded in a hierarchy of influences ranging from the global to local, and geographers are willing to move within this hierarchy while considering the scale on which the potential contextual effect may operate.

Despite this openness to various scales of context, there is one specific context that has been of central interest to human geography: the urban context. Discussing the conditions and consequences of the 'urban' has been a central theme in urban studies since the publication of seminal works by scholars such Simmel ([1903]1976). Tracing the definition and meaning of 'urban' within the social sciences leads us back to the turn of the 20th century and classic works by the likes of Ferdinand Tönnies and Emilé Durkheim. First, Tönnies (1887) outlined a theory on societal change describing a transition from traditional gemeinshafts, where social relations are built around small habitual and instinctive units such as family and kin-groups relations, to more modern gesellshafts, in which the network of social and economic relations is based upon contractual obligations and monetary compensation between the individual and society. Although not a central theme of his thesis, Tönnies noted that cities and the urban environment within the modern state is the locale where this transition occurs and proceeds. Thus, Tönnies' theory relates closely to that of another classical sociologist, Emile Durkheim, who in (1893) presented an idea on the transition from mechanical solidarity in primitive societies without a distinct division of labour to more modern and complex societies where people are positioned and rewarded according to individual merits and performance.

Later on, Georg Simmel added a more psychological dimension to the social theories of modernity and urbanism suggested by Tönnies and Durkheim. Simmel ([1903]1976) argued that, in addition to emphasizing mechanical and formal social relations and contractual obligations, urban life in modern societies is characterized by continuous nervous stimuli, producing a more hectic and stressful way of life. A few decades later, Louis Wirth (1938) drew together these seminal theories of societal change into a theory on the effects of urbanism on wellbeing. Wirth (1938) concluded that it is impersonality, isolation and anomie, along with decline of close social networks and the dominance of formal organizations, that have a negative effect on overall human wellbeing.

The above review of these urban classics demonstrates that they have operated at the intersection of urban sociology and geography and have tended to relate urbanism to the broader discussion on modern and modernism. Even today, insights from these discussions can be applied to analyses of the conditions that the urban context imposes on human wellbeing. Despite the significant advance of urbanization since the turn of 20th century, the definitions of urban (in contrast to rural) as well as its subnational patterns remain the same. In other words, the cultural and social differences between rural and urban appear to be rather persistent as well as reproduced over time (Fischer, 1975). Thus, in any given national context, cities can be regarded as more 'modern' and 'developed' than rural areas and peripheries.

This pattern is universally apparent; however, regional intra-country disparities between the urban core and peripheries appear larger in so-called developing countries. By contrast, economic devel-

opment tends to reduce country-level regional inequalities[9]. Nevertheless, in the European context, for example, studies have noted that regional economic inequalities have begun to grow again, due to a shift away from balanced regional development policies (see .e.g. Martin, 2015) towards policies built on the insights of agglomeration economics and competitive city regions. This trend converges with rationale and practise of city regionalism favouring processes of agglomeration and accumulation underpinning city-regional growth, which are regarded to be detached from the national context and policies (for a critical review see e.g. Jonas & Moisio, 2016).

Nonetheless, the popular stereotype is that urban dwellers and the urban context are more individualistic and show more openness to change, whereas the rural context is associated with tradition, conservation and security. A small number of empirical studies examining these differences have also found tentative support for such assumptions (Cockfield & Courtenay Botterill, 2012; Glenn & Alston, 1967). However, the perennial questions that inspired the pioneering scholars of urban research still remain: how 'urban' should be defined, how the urban way of life differs from the rural, and how the urban context affects human wellbeing.

In addition, the urban context has been of specific interest to scholars of urban design and planning. The fundamental characteristics of the city and their relation to the wellbeing of urban residents were of central concern in the writings of the social philosopher and urban architect Lewis Mumford. Mumford (1937) defined cities as an integral component in the development of human functioning and social interaction and argued that the physical design and economic functions of a city were secondary to their role as a stage or theatre of social interaction and drama. Mumford was also critical of the work of Le Corbusier, an influential French architect who in Mumford's view neglected the social dimension, as his design of a city was built on rationality, orderliness and technological advances.

Mumford's ideas also resonated with a later urban classic by Jane Jacobs (1961). Jacobs argued that urban design played a fundamental role in promoting social interaction, community development and identity building and thus ultimately in the wellbeing of residents. In summary, Mumford and Jacobs argued as social interaction is shaped by the urban context in which it occurs, enabling social interaction that affects directly to the wellbeing of urban residents should be the guiding principle in urban design and planning.

These discussions on urban life, design and wellbeing can ultimately be converted into specific research questions that can be empirically approached, such as how the subjective wellbeing of urban residents compares to that of people living in a more rural environment. The present thesis addresses this question and examines the rural/urban difference through the concept of human values (Schwartz, 1992). First, it first seeks to reveal whether there really are certain values associ-

9 An interesting detail in this pattern is that the relatively lower life satisfaction seen in the largest urban agglomerations in developed economies is not usually detected in so-called developing countries (Easterlin et al., 2011). A plausible explanation for this discrepancy is that economic growth has, to some extent, diminishing returns in terms of its contribution to subjective wellbeing.

ated with the urban or metropolitan context. Then it investigates whether an individual-level 'value divergence' from these contextual norms has an effect on individuals' experience of life satisfaction. It is an essentially interdisciplinary inquiry, as it utilizes the concept of 'human values', a key term in social psychology, to address a central question in urban geography and sociology. The analysis thus builds on a disciplinary interface between psychology and geography that appeared briefly in the geographic literature some twenty years ago (Kitchin, 1997).

To conclude, in an investigation of the effects of context on SWB, a geographical perspective has distinct advantages for defining and analysing the hierarchical set of spatial scales where such effects occur. A geographical perspective on SWB is apt for considering a variety of different contexts on different scales ranging from local to global, depending on the research interest and available sample survey data. In addition, revealing the potential effects of the 'urban context' on individual SWB falls within the scope of the contextual disciplines of geography and sociology. These disciplines can draw on a rich body of literature on the definitions of 'modern' and 'urban' within the social sciences, rather than relying on the more narrow assumptions of urban amenities and agglomeration benefits as fundamental causes behind the appeal and complexities of cities and urban life.

## 3.4 Interpreting patterns of wellbeing and development – economic geography versus spatial economics

One of the objectives of this thesis is to construct relief maps of different levels (intercepts) of SWB on different geographical scales. Thereafter, the interest is in analysing and interpreting the emerging patterns on these maps. In other words, the study asks how the spatiality of SWB should be understood as a dimension of social development. As noted at the beginning of this chapter, there is no single prevailing theory on how to interpret cross-sectional patterns of SWB; instead, it is necessary to draw on various debates within regional studies and science, with their parallel concepts of objective measures of wellbeing and development.

The most relevant debate concerning the spatiality of objective economic development is located between spatial economics and economic geography. Even though these research traditions share an interest in the spatial nature of economy, interestingly they have a rather different point of departure for interpreting the spatiality of economic development. This fundamental difference has also been discussed in the rigorous debate between spatial economics and so-called 'economic geography proper' (see Overman, 2004 and Garretsen & Martin, 2011). As earlier remarked, from a neoclassical economic perspective, an understanding of the landscape of socio-economic activity is primarily based on individual utility maximization, different forms of compensations and spatial equilibriums.

Geographers such as Calvin Jones (2015) have recently criticized this perspective, noting that while regional economic theorists and regional econometric modelling borrow concepts and metrics from equilibrium macroeconomics, they are only very tangentially related to space and not at all to place. Hence, place and culture, or 'place-based culture', are not considered significant contributors to economic reality. Instead, the rationale of spatial or regional research based on neoclassical economic theory assumes that individual preferences (resulting from differences in personality and taste) require no further analysis, as they are ultimately reflected in market outcomes, such as housing prices or location choices (i.e. spatial sorting). In other words, spatial heterogeneity is of no specific interest to spatial economists; rather, it is a nuisance which needs to be filtered out of the analysis in order to construct a so-called global model (and reveal a state of spatial equilibrium).

By contrast, the spatial heterogeneity of any phenomenon is of special interest to geography, which is not fixated on equilibriums, either in spatial or any other terms. In other words, even in a cross-sectional analysis of economic performance, geographers can attempt to explain the spatial nature (spatial autocorrelation and emerging patterns) of a given phenomenon in terms of cultural or social variables, resulting from different cultural and institutional processes, and taking place at certain temporal context.

A sub-discipline in this line of inquiry is Evolutionary Economic Geography (EEG), which while interpreting the geography of economic activity and production, places more emphasis on the role of institutional, cultural and economic history in shaping the economic landscape. Thereby, instead of universal and non-contextual relationships, EEG is more interested in endogenous processes and local epistemologies (Jones, 2015; Martin & Sunley, 2015). Consequently, it places more importance on circural and cumulative causation in shaping the economic landscape and thus allows for the possibility of uneven economic development that is not part of any equilibrium (see e.g. Jones, 2015).

However, until the present day EEG has focused on company-level micro-scale processes. Nevertheless, within EEG it has also been argued that what is actually needed is a 'more systematic and holistic understanding of spatial economic evolutions that considers not just industrial evolutionary dynamics but also the wider economic, institutional, and socio-political structures shaping the uneven geographical development' (Martin & Sunley, 2015, p. 720).

Nevertheless, the insights of EEG have yet to be applied to an analysis of measures of SWB. By contrast, however, from the rationale of spatial economic have already been used in studies of the geography of SWB, for example by Glaeser et al. (2014), who analysed differences in subjective wellbeing (life satisfaction) between metropolitan areas in the US. After first confirming the lower-than-average life satisfaction of urban dwellers, the study attempted to explain this finding's apparent contradiction with economic logic, as it is assumed that individuals will aim to maximize their utility (and in this case satisfaction) through locating to the places which best conform to their personal preferences. This line of thought gave Glaeser et al. (2014) a reason to interprete the relatively lower life satisfaction of urban residents through an arguement that individuals do not aim to maximize self-reported wellbeing, or happiness, as measured

in surveys, and they willingly endure less happiness in exchange for higher incomes or lower housing costs.

In other words, in this literatute individuals are compensated from their relative lower life satisfaction in cities by higher income and lower housing costs and thus the spatial equilibrium remains. Another recent study exploring SWB data in regional science was conducted by Goetzke & Islam (2016), who wanted to test for the existence of spatial equilibrium, the key assumption in the field or urban economics, by using regional-level happiness data from the United States.

It is no surprise that these assumptions embedded in mainstream economic theory have been criticized within economic geography. For example, Mäki and Marchioni (2009) asked whether geographical economics, based on mainstream economic theory, is imperializing the discipline of economic geography. More recently, Peck (2012) formulated a more rigorous critique, accusing (new) economic geography of leading an isolated 'island life' dominated by orthodox economics and neoclassical models and neglecting the insights of neighbouring disciplines. Peck (2012, p.113) argued that a "more heterodox economic theory could be built on a pluralist and interdisciplinary analysis of comparative economics, instead of aiming for universal theories characterized by equilibriums and markets".

Another example of the fixation on compensation, economic rationalization and the power of individual choice was offered by Glaeser (2011, p. 86), who noted that 'A city's population tells you about what the city offers. Salt Lake City is full of Mormons because it is a good place to be a Mormon. London has many bankers because it is a good place to manage money. Cities like Rio have plenty of poor people, because they're relatively good places to be poor. After all, even without any cash, you can still enjoy Ipanema Beach'. In other words, poor people in Rio are compensated for their low income by nice views of Ipanema; otherwise, they would not have decided to migrate there. A thorough and critical review of this all-encompassing rationality of urban economics was recently made by Peck (2016).

To conclude, the discussion presented in this chapter can be crystalized into the question of how to interpret spatial patterns on a relief map of subjective (SWB) and objective (economic) wellbeing. More specifically, should spatially varying levels of subjective wellbeing be primarily interpreted as a state of spatial equilibrium created by trade-offs between different forms of individual-level locating preferences (Glaeser at al. 2014) or to what extent should they be seen as the results of institutional, cultural and economic historical trajectories (Paper III in this thesis)?

The main fields in this discussion are thus the sub-disciplines of spatial economics and economic geography (especially EEG), both of which provide insights and perspectives that can be applied to the analysis of spatial distribution in SWB data. However, it appears that the former has already begun to use SWB measures as a disciplinary tool, whereas the latter has not.

Consequently, there is a risk that the geography of SWB will be constructed by urban and spatial economists rather than geographers. It is to is this unbalanced mix of disciplines operating with geographically referenced SWB data that this thesis aims to contribute, by proposing, as Peck (2012) suggests, a more interdisciplinary

and pluralist approach to the geographies of the economy, development and wellbeing.

# 4.0 Data, methods and design

## 4.1 Research setting

The empirical analyses included in this thesis occur in the context of European countries and regions. As a geographical entity, Europe is a complex continent displaying significant economic, cultural and institutional diversity. Europe's complex heterogeneity can be approached through various classifications, such as urban vs. core regions, or the conventional division between East and West Europe, or alternatively in more political terms such as the EU-15 and accession countries (e.g. Aslam & Corrado, 2012). Yet another typology can be constructed on different welfare regimes, which indicate a different socioeconomic stratification and distribution of resources within societies, including different insurance systems for the various social risks faced by individuals (Paper II of this thesis).

In technical terms, EU countries are disaggregated into smaller administrative regions based on Nomenclature of Territorial Units for Statistics (NUTS) criteria. Obviously, as these criteria are primarily based on the needs of policymaking and data collection, they might not present the actual geographical distribution or borders of the phenomena being studied. However, in the case of Finland (characterized by relatively small within-country differences), where the smallest NUTS level 3 regions are based on actual provinces (maakunta in Finnish), they capture relatively well the cultural, economic and dialectical boundaries with Finnish society. Even though this approach of treating administrative regions as containers of something 'social' is rather mechanical and undeniably lacks sufficient understanding of geographical space (see e.g. Häkli, 2009), they form the basis of how to approach subnational differences in empirical analyses.

## 4.2 Data

The objective data used in this thesis come from the Eurostat regional database, while the survey data are drawn from different rounds of the European Social Survey (ESS). These two types of data are combined in Papers I and II based on the smallest common denominator in the NUTS classification. In addition to these two sources, Papers I and II utilize the European Quality of Government Index (EQI), which measures corruption and governance at the regional level within the EU and can be freely downloaded from the webpage of the authors (Charron, Dijkstra, & Lapuente, 2014). Furthermore, Paper IV uses the GINI index, downloaded from the World Bank database and employed as a contextual measure of income inequality.

The source of the regional (Papers I and II) and national (Paper IV) scale objective economic statistics in this thesis, Eurostat, is a Directorate-General of the European Commission located in Luxembourg. Eurostat's main responsibilities are to provide statistical information to the institutions of the European Union (EU) in order to promote the harmonization of statistical methods

across its member states. Eurostat disseminates its statistics free of charge, and most of its statistical databases are accessible via the Internet. Moreover, Eurostat offers data on various subnational scales based on the NUTS (Nomenclature of territorial units for statistics) classification.
The NUTS classification is a hierarchical system for dividing the territory of the EU for the purpose of collection, development, and harmonization of socio-economic analyses on a subnational scale, and it can also be used for framing EU regional policies (Eurostat, 2014). In the current NUTS 2013 classification, the geographical hierarchy of NUTS consists of 98 regions at the NUTS 1 level, 276 regions at the NUTS 2 level and 1342 regions at NUTS level 3.

The European Social Survey (ESS), from where the measures of subjective wellbeing are derived, is an academically driven cross-national survey that has been conducted across Europe since 2001. The aim of the ESS is to measure and monitor the attitudes, beliefs and behaviour patterns of diverse populations in European countries. A key aim of the ESS has been to maintain high quality standards in its methodology and sampling and more generally to improve the quality of cross-national surveys monitoring social change between and within societies (European Social Survey, 2016). ESS data is available free of charge for non-commercial use and can be downloaded from their website.

The ESS questionnaire consists of two types of questions – those belonging to the core module and those within the rotating module. The core module was originally designed as a time-series that would allow researchers to monitor changes in attitudes, values and social conditions in Europe. The core module has been included in all the ESS rounds since 2002. In addition to the core module, multi-national teams of researchers are selected to contribute to the design of two rotating modules for each round of the ESS. These modules are then selected based on a call for proposals and evaluated by the European Science Foundation (ESF). Rounds 3 (2006) and 6 (2012) included a rotating module on the subjective wellbeing of individuals covering a wide range of survey items on different dimensions of the SWB literature (the hedonistic, life evaluations, and eudaimonic accounts). The data from the sixth round were used in Papers I, II and III of this thesis, since this was most up to date EES at the time of the writing and also because the rotating module offered the most extensive list of indicators of individual-level SWB.

The Human Value Scale, utilized in Papers II and III in this dissertation, is included to all round of ESS. The Human Values Scale includes 21 different survey items that are categorized into ten different values. Furthermore, in Human Value Scale these ten values are organized into a "circumplex" structure denoting their mutual relationship. This circumplex according to the author Schalom Schwartz is reproduced in Figure 1.

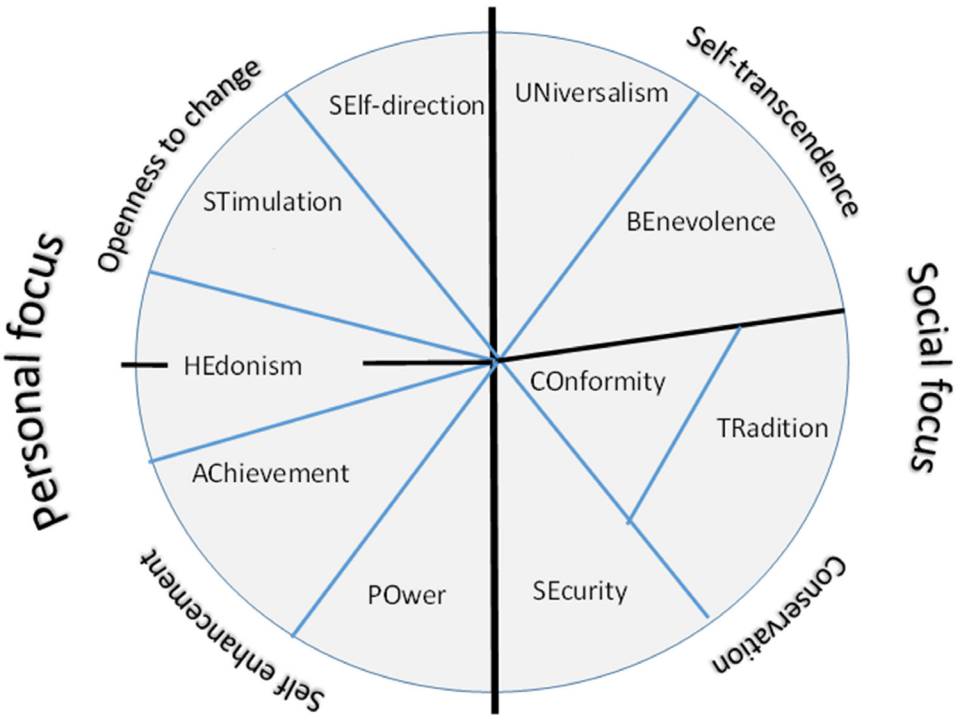


**Figure 1.** Theoretical model of relations among ten motivational types of value according to Schwartz (2004)

The circumplex is organized so that the strength of positive association between each pair of values decreases with the distance between them (Schwartz, 2004). Additionally, the circumplex is designed to contrast a concern for others (Self-transcendence) and the self (Self enhancement) as well as the tension between openness to change and conservatism. Schwartz has also described specific instructions for aggregating the values responses and including them into regression analyses (Schwartz, 2012). The instructions include reversing the original 6 to 1 scale as well as recommendation for centering or normalizing on the individuals score over all 21 items. These suggestions were followed in Papers II and III utilizing the Human Values Scale in ESS.

The ESS has provided an increasing amount of regional data, and where possible the regional level indicator has been included as geographical nomenclature in the NUTS classification. The usefulness of ESS regional data varies between rounds and countries, and a solid overview of the statistical inference of ESS regional data is presented in Piper (2014). For the purpose of the analyses in Papers I and II, data from ESS and Eurostat were merged on the basis of their smallest common NUTS classification. Paper III focused on just one country (Finland), and in this case the geographi-

cal analysis was based on NUTS level 3, which is the smallest geographical unit in the NUTS criteria. In Paper III, a geographical comparison was performed between the Helsinki-Uusimaa region (NUTS-3 level coding of FI1B1), defined as 'Metropolitan Finland', and 'Non-metropolitan Finland', representing all the 19 remaining NUTS 3 regions in Finland combined. Paper IV operated at a national level (NUTS-0); thus, no subnational or regional location indicators were used.

As the ESS has been designed mainly for international comparisons the representativeness at the regional scale varies regarding each country. However, as ESS is associated with subnational focus on the EU territory a certain emphasis has been placed on regional (NUTS) scale in the sampling design and within most countries, a first stage of sampling was stratified by region. A documentary on the subnational referencing of the survey data and statistical inference at the regional level for each specific country and round in ESS can be found from ESS (2012). Also, a detailed description on the sampling procedure of ESS is given in the Appendix 1 of Piper, (2014, pp. 121-122).

### 4.3. Research design and methods

As noted before, there is no single theory for understanding the spatiality of SWB, and consequently the research design of this thesis can be characterized more as a theory-building process than the testing of a specific theory. As discussed in Chapter 3, this is due to the study's interdisciplinary framework. This type of research design entails asking whether an observation (in this case the level of SWB on a regional scale) is a particular case of a more general phenomenon and how the observation fits into a broader pattern or story (De Vaus, 2001).

As a result of its empirical structure, the research design of this thesis is mainly descriptive. Thus, it focuses primarily on questions on how rather than why. The cross-sectional framework of the study therefore centres on how different forms of wellbeing are interrelated in space, as an analysis of the causality between objective and subjective dimensions of wellbeing (why questions) would require longitudinal data. In this case, the exact how questions of this thesis are as follows: How do objective and subjective measures of wellbeing co-vary in space (Papers I and II)? How do certain sub-national contexts (the metropolitan context) affect this relationship (Paper III)? And how are longitudinal changes in macroeconomic conditions reflected in the social stratification of SWB in a single country (Paper IV)? The research designs and methods of each of the four empirical analysis included in this thesis are presented in detail in Table 1.

**Table 1.** Research design and methods

| | Paper I | Paper II | Paper III | Paper IV |
|---|---|---|---|---|
| **Data** | 6th round ESS (2012) | 6th round ESS (2012) | 6th round ESS (2012) | 2nd to 7th round ESS (2004-2014) |
| **Research design** | Cross-sectional | Cross-sectional | Cross-sectional | Repeated cross-sectional |
| **Research setting** | 297 NUTS regions in 24 European countries | 297 NUTS regions in 24 European countries | Finland | Ireland |
| **Scale** | Regional | Regional | Subnational | National |
| **Method** | OLS regression and spatial filter | OLS regression and spatial lag | OLS regression + interaction effects | OLS regression + interaction effects |
| **Level of analysis** | Aggregate | Aggregate | Individual | Individual / subgroup specific aggregates |
| **Dependent variable** | GDP | GDP | Life satisfaction | Life satisfaction |
| **Main independent variables** | Regional aggregates of social and personal wellbeing | Regional aggregates of human values | Human values and individual level 'value dissonance' | Socio-economic categories, i.e. classes |
| **Control variables** | Regional economic indicators | Regional economic indicators | Standard socio-economic variables | Gender, age and age$^2$ |

The first two papers (I and II) share a rather similar empirical framework and strategy. Papers I and II are cross-sectional analyses utilizing sixth-round (2012) European Social Survey data from 297 NUTS regions in 24 European countries. Regional aggregates of certain survey items representing measures of subjective wellbeing and human values are analysed together with regional economic indicators, such as the share of the population that is tertiary educated, R&D expenditure and the employment rate, which are treated as control variables. The aim of these analyses is to reveal whether regional aggregates of various forms of intangible capital drawn from the ESS data (social and personal wellbeing in Paper I and 'value based' human capital in Paper II) have, in regression analysis, a statistically significant association with regional eco-

nomic performance after including an extensive set of control variables and controlling for spatial autocorrelation in the geographical dataset.

The literature on spatial analysis and regional science suggests various approaches for addressing spatial autocorrelation in the data, and there seems to be no consensus on the most appropriate method (Mauricio Bini et al., 2009). Consequently, the analyses in this thesis apply two different methods for controlling for this autocorrelation: spatial filtering and spatial lag (see e.g. Le Gallo, 2014). Paper I applies the procedure of spatial filtering as described by Bivand et al. (2008), and the empirical analysis is performed with the 'SpatialFiltering' procedure in the 'spdep' package in R.

Paper II applies an alternative approach for addressing the spatial autocorrelation of the data. A spatial lag model was chosen for both for theoretical reasons (regional GDP is most likely to be affected by spillovers, i.e. 'contagion'), but also because the use of spatial lag was supported by the results of the Lagrange multiplier test series suggested by Anselin (2007). The focus of both Papers I and II is thus on the spatial intercept heterogeneity of SWB, as they analyse spatially varying levels of subjective wellbeing, which are then compared to indicators of objective well-being (such as level of GDP). Paper II also discusses the issue of spatial rescaling for analysing the spatial heterogeneity of the relief map of SWB.

Paper III applied a different empirical framework to the study of the geography of SWB, as it focused on the slope heterogeneity of subjective wellbeing. Thus, the primary focus was on the effect of specific geographical contexts on the level of individual SWB. Consequently, in addition to simple OLS regression models, the analysis also tests certain interactions between four values (Power, Achievement, Benevolence and Conformity) and metropolitan residence in order to reveal whether the relationship between these values and levels of life satisfaction is different in 'Metropolitan Finland' (the Helsinki-Uusimaa region) compared to the rest of the country. Finally, the aim was to explore the extent to which subjective wellbeing is sensitive to how closely individuals' values conform to the regional norm and if this effect is modified by the metropolitan context. Thus, the individual level of life satisfaction is regressed on standard socio-economic variables and also on the measure of 'value dissonance'. This allows an analysis of whether variation in subjective wellbeing between regions and settlements is due to value dissonance – the degree to which people feel out-of-place in communities because their values differ from those held by the regional majority.

Paper IV delivers two supplementary perspectives on the analyses of the spatial intercept heterogeneity of SWB data. First, it relies on a time series of SWB levels within a single country instead of a cross-sectional comparison between countries or regions. Second, instead of relying on aggregate values of the population as a whole, it focuses on different socio-economic classes (based on income, education, and occupation) within a society. This type of categorical and fundamentally sociological framework enables the investigation of SWB changes in the social strata of a nation or region. In this case, Paper IV uses the recent economic recession in Ireland as the frame and the European Social Survey from 2004 to 2014 as the data that enable an analysis of

social stratification in terms of life satisfaction within a single country over time.

# 5.0 Summary of the results and their main contributions

## 5.1 The geography of intangible capitals, subjective wellbeing and human values

Paper I analysed the relationship between eudaimonic wellbeing and economic performance on a regional scale. The results of this analysis showed that the indicator for 'social trust' appears to have a positive and significant correlation with regional GDP. This association appears robust also after controlling for various macro-economic indicators. Furthermore, the analysis also distinguishes another form of social capital with a positive relationship with regional GDP: 'social contact and support', reflecting the relative frequency and quantity of social support. Concerning subjective human capital, the strongest predictor of regional GDP within a particular region appears to be the aggregated sense of 'competence and meaning'. These effects also proved robust after including the objective control variables (population density, intramural research and development (R&D) expenditure, share of tertiary-educated population and employment).

The empirical analysis in Paper II showed that the value of 'self-direction', indicating independent thought, action and creativity, is a strong predictor of regional GDP after both controlling for a set of economic regional indicators and addressing the spatial autocorrelation of the dependent variable. Moreover, the analysis employed welfare regimes as indicators of larger socio-historic frames and found significant geographical variations within these regarding the relationship between the prevailing value climate and level of economic performance. As a result, the study contrasts perspectives from economic geography and cultural studies with the literature on alternative definitions and measures of human capital and argues that a synthesis of these perspectives could enrich understanding of the economic geography of Europe.

Overall, the contributions of Papers I and II belong within the literature on regional economic development; however, they have a strong interdisciplinary emphasis. Recently, Andy Pike, Andrés Rodríguez-Pose & John Tomaney (2016), some of the leading scholars in regional studies, reviewed the 'emerging horizons in local and regional development research'. The authors placed strong emphasis on redefining the term 'development' and called for more effective measures of regional development that better acknowledge the wellbeing of populations. The authors observed a loosening of the link between economic growth and 'human flourishing' (ibid. p.4) and defined the spatial interdependence of subjective and objective measures of wellbeing as one of the emerging research frontiers in regional studies.

Consequently, Paper I of this thesis helps fill the 'gap in knowledge' described by Pike, Rodríguez-Pose, and Tomaney (2016), as it investigates the spatial relationship between eudaimonic 'flourishing', measures of wellbeing and the level of economic performance in 289 NUTS regions in Europe. First, the analysis makes an empirical contribution to the study of the spatial relationship between the two dimensions of wellbeing – subjective and objective. Second, it also reveals a strong conceptual overlap between subjective wellbeing research and regional economic development.

Furthermore, the conceptual and empirical framework of Paper II resonates with one of the most prominent research frontiers in regional studies, Evolutionary Economic Geography (EEG), and especially with the 'developmental turn' in EEG. Recently, Martin and Sunley (2015) argued that as EEG has tended to focus more on company-level micro-scale processes, it needs a 'more systematic and holistic understanding of spatial economic evolutions that considers not just industrial evolutionary dynamics but also the wider economic, institutional, and socio-political structures shaping the uneven geographical development' (Martin & Sunley, 2015, p. 720). In response to this call, Paper II suggests that Inglehart's (1990) modernization thesis and Esping-Andersen's (1990) welfare regimes theory are suitable theoretical frameworks for detecting and analysing the parallel and path-dependent processes in the economic, cultural and institutional dimensions of society.

To conclude, these two papers make a clear contribution to the field of regional studies, as they address two highly topical research frontiers, but from an explicitly interdisciplinary perspective. The main contribution of the analyses in Paper I and II is that they demonstrate a conceptual overlap between measures of different forms of intangible capital and provide empirical evidence of their relationship at a subnational level. The analyses open up new lines of inquiry for monitoring and analysing the geographies of wellbeing, the economy and human values in Europe on different geographical scales.

### 5.2 Value dissonance, subjective wellbeing and the metropolitan context.

Paper III was also built on an interdisciplinary foundation, integrating insights from social psychology and classical urban sociology. The hypotheses in Paper III utilized the socio-psychological literature on the relationship between values and wellbeing, which suggests that certain 'extrinsic' values are associated with lower life satisfaction (Huppert, 2009; Kasser & Ahuvia, 2002). In turn, the classical sociological literature on the definition of urban and urban lifestyles (e.g. Wirth, 1969; Simmel, [1903] 1976) suggests that personally focused values, especially those of self-enhancement (Power and Achievement), should predominate in metropolitan regions.

Paper III distinguished between 'Metropolitan Finland' (Helsinki-Uusimaa) and 'Non-metropolitan Finland' (the rest of Finland) on the basis of the NUTS3 classification and obtained measures of human values from the European Social Survey for studying value orientations in these two contexts. The results demonstrate that metropolitan centres disproportionately attract individuals who highly value 'power' and 'achievement', both of which correlate negatively with life satisfaction. By contrast, residents of non-metropolitan Finland were more likely to identify with 'conformity', which correlates positively with life satisfaction.

Second, the results show that when it comes to subjective wellbeing, the association between values and context may not be independent. Although the results are modest, they are consistent with the view that non-metropolitan residence magnifies the wellbeing effect of the socially focused values 'benevolence' and 'conformity' and negates or reduces the negative effect of power and achievement evident among those living in metropolitan areas.

The empirical analysis in Paper III also employed the concept of value dissonance in order to shed further light on the difference between the way values condition subjective wellbeing in metropolitan and non-metropolitan environments. Stronger identification with values that have a 'personal focus' not only results in lower levels of life satisfaction among metropolitan residents; it also reduces the negative impact of deviating from the 'community norm' in non-metropolitan settings.

In summary, in light of the evidence presented in paper III, the value-related negative effect of large metropolitan areas on subjective wellbeing is at least twofold. First, it is compositional, as the population in metropolitan centres is composed of individuals who highly appreciate the values of power and achievement, which are associated with lower life satisfaction. The second effect is contextual, as metropolitan residence moderates the positive wellbeing effect of socially focused values, such as 'benevolence' and 'conformity'. Consequently, these results can be considered to provide tentative empirical evidence for the argument presented in classical urban sociology that the 'complex differentiation of urban social structure leads to an anomic society of isolated individuals who suffer alienation and deviance' (FISCHER, 1973, p. 222).

To conclude, the interdisciplinary framework of Paper III can be considered rather novel, as very few regional scientists have explored the impact of values on subjective wellbeing in terms of the geographical context in which individuals live. The psychologist's concept of 'environmental fit' has yet to be applied beyond the immediate or local context; however, as the results of Paper III suggest, the concept may have more general applicability in linking subjective wellbeing through values to the urban and regional context. Thus, the analysis in Paper III can be considered an important contribution to the geography of subjective wellbeing, as no earlier studies on the negative effect of metropolitan residence on life satisfaction have followed Bobowik et al.'s (2011) suggestion of taking 'human values into consideration as components of a wellbeing model'.

### 5.3 Adding vertical layers to intercepts of SWB – the socio-economic stratification of life satisfaction on a national scale

The analysis in Paper IV strove to provide greater detail to the studies on the varying levels (intercepts) of SWB on different geographical scales. Instead of relying on a one-dimensional (vertical) value of SWB referring to the aggregate of a population as a whole, Paper IV focused on subgroup-specific changes in the relationship between objective and subjective measures of wellbeing.

In other words, Paper IV provided empirical evidence on whether changes in macroeconomic indicators are experienced differently in different socio-economic categories, i.e. classes. As the literature on the relationship between inequality and life satisfaction has focused on a contextual measure of income inequality (usually the GINI-index), the in-depth examination of the socio-economic stratification of life satisfaction presented in Paper IV fills an important gap in the current literature. It also makes an interdisciplinary contribution to the interface between sociology

and SWB, an area where there is a paucity of studies (Delhey & Dragolov, 2014, p. 151; Wolbring et al., 2013, p. 86).

First, the analysis reveals that the different dimensions of socio-economic stratification –income, education and occupational class – are of varying importance for life satisfaction, with income being the most important factor. Concerning the effects of economic crisis, the results show that the structure of the stratification of life satisfaction varies over time: the effects of Ireland's economic crisis peaked in 2010 in terms of its negative impact on both GDP and life satisfaction. Moreover, this was not experienced equally within the population; rather, the lower strata (the lowest income quartile, manual workers and those with no more than a basic level of education) were the most affected. Furthermore, the role of different social and economic mechanisms in stratification also varies over time.

In the pre-crisis period, life satisfaction appeared to be primarily stratified by income, with low life satisfaction being due to the experience of economic hardship. However, during the economic crisis, the stratification of life satisfaction adopted a deeper, more complex form, as basic education and manual labour also began to explain lower life satisfaction. Moreover, the experience of economic hardship no longer had the same explanatory power for predicting low life satisfaction.

In conclusion, the results in Paper IV demonstrate that the structure of the stratification of life satisfaction is not constant over time; instead, it is strongly modified by short-term changes in macro-economic conditions. Hence, the paper demonstrates that in studies of SWB it is not enough to approach inequality as a unidimensional contextual measure (see also Delhey and Dragolov, 2014: 161). Instead, applying a more categorical and sociological approach can shed additional light on stratification and inequalities in SWB.

In sum, both the framework and results presented in Paper IV can be utilized to add more (vertical) detail to geographical analyses of the intercept heterogeneity of SWB. Moreover, the results reveal that the relationship between objective and subjective levels of wellbeing is highly complex and includes significant subgroup-specific variance. Even though the geographical scale of this analysis was the national level, the analysis connects to a key question in regional studies: who benefits and who loses from particular forms of macro-economic changes that are often socially (as well as geographically) unevenly distributed (Pike et al., 2007)?

# 6.0 Conclusions and policy relevance of the results

## 6.1 Conclusions

This thesis set out to examine the relationship between objective and subjective measures of well-being on different geographical scales in the European context. More specifically, the study focused on geographically varying levels (intercept heterogeneity, Papers I and II), place-effects (slope heterogeneity, Paper III) and patterns (scale heterogeneity, Paper II) of subjective wellbeing and societal development. Furthermore, the analysis in Paper IV added vertical detail to the intercept heterogeneity of SWB on a national scale by looking at socio-economic stratification instead of relying on aggregates of the population as a whole.

The main conclusions from the empirical analyses (Papers I to IV) in the thesis are threefold. First, the results from Papers I and II demonstrate that the geography of subjective wellbeing is not merely a reflection of economic or even socio-economic indicators and conditions. Instead, there is significant overlap in conceptual, empirical and spatial terms between various measures of human capital, personal and social wellbeing and cultural values, which indicates that their relationship is highly complex. These results suggest that the map of wellbeing in Europe cannot be understood comprehensively by focusing solely on an aggregate of individual-level economic attributes, such as income, unemployment or indicators of macro-economic productivity like GDP or GVA. Conversely, the geography of the European economy cannot be fully understood by focusing exclusively on economic productivity or performance; instead, cultural factors (human values, social trust and support, and sense of competence) also have an independent effect that is not captured by standard economic indicators.

The results of this thesis also suggest that patterns emerging from a cross-sectional relief map of SWB and economic performance should be seen in the broader context of historical processes of modernization associated with partially path-dependent cultural shifts and trajectories. Thus, the cultural and social dimensions of development are associated with the level of economic productivity, but the causal mechanisms are extremely complex. In sum, Papers I and II argue on behalf of an explicitly interdisciplinary approach to the understanding the geography of wellbeing and development that integrates insights from cultural studies, the subjective wellbeing literature and economic geography.

Second, the empirical analysis of this thesis opened one new line of investigation for studies of the geography of SWB. Paper III focused on the contextual effects of living in the largest urban agglomeration within a national hierarchy. This analysis revealed that people are sensitive to the social context of the prevailing 'value climate', and if their value orientation differs that of the surrounding community they are negatively affected in terms of lower life satisfaction. The analysis also revealed distinct differences in the prevailing 'value climate' between the metropolitan and non-metropolitan contexts. These results resonate with perennial concerns discussed in the literature on urban sociology and geography that have, prior to the present study, received rather modest empirical attention. In addition, they project salient questions for scholars of urban economics con-

cerned with various agglomeration benefits and their contribution to urban and regional planning.

Third, the analysis from Paper IV reveals that focusing on the socio-economic stratification of life satisfaction can add valuable detail to analyses of spatially varying levels of SWB. When aggregating a population's SWB responses on any given geographical scale to a single value (such as the mean of life satisfaction in a country or regional level), a significant amount of information is lost. Consequently, the analysis in Paper IV adopted a more disaggregated approach and focused on average life satisfaction in socioeconomically stratified categories (layers) within a single society and followed the development of life satisfaction between these categories over a period economic crisis. The results demonstrate that socio-economic layers react differently to changes in macroeconomic indicators. In conclusion, these results not only contribute to the literature on the relationship between objective and subjective indicators of societal development, but they also draw attention to the question of social justice and inequality within this relationship.

Although making a clear contribution to the existing literature on the relationship between subjective and objective measures of wellbeing, the framework and scope of this thesis have several limitations. First, the results remain primarily descriptive, and thus they cannot confirm any causal links between different measures of wellbeing. From certain perspectives, for instance from a strictly economic standpoint, descriptive analyses are inferior to explanatory analyses (Smelser & Swedberg, 2005). However, despite descriptive analyses being commonly dismissed as 'mere description', other scholars have observed that good descriptions are fundamental to research enterprise in the social sciences, as they can raise important and neglected 'why' questions (De Vaus, 2001). This particularly applies to studies that integrate perspectives, measures and concepts from different disciplines, as these disciplines can have different assumptions on their direction of causality.

This is also the case in the interdisciplinary framework of this analysis. Economic analyses often implicitly assume that the direction of causality runs from economic prosperity to wellbeing. In other words, higher income directly increases life satisfaction, as it enables better preference satisfaction at an individual level (Bruni & Porta, 2007). In fact, the direction of causality between material wealth and wellbeing is complex and in many cases may be the reverse. Thus, instead of offering proof of the direction of causality, the contribution of this thesis is to raise important and neglected 'why' questions (De Vaus, 2001) and give greater focus to the reverse causality between objective and subjective measures of wellbeing.

Another limitation of the study (especially Papers I and II) is the fact it is focuses solely on administrative (NUTS) regions. This is problematic because these formal categories of space clearly fail to represent the natural spatial division of the phenomenon being studied. Some critics of these types of empirical analyses, such as Häkli (2009) in his reference to the 'hidden geography of trust', argue that they hide more than they reveal, as they fail to adequately address the social mechanisms in geographical space and place that generate these categories.
This thesis acknowledges such criticisms and responds to them in two ways. First, it adds multiple levels (based on social stratification) to these constructivist 'containers' of the social world

instead of relying on an aggregate of a population as a whole. Second, it places varying levels of SWB (and social trust) on a map based on the smallest available location indicator, in order to detect and analyse the emerging spatial patterns. Despite the fact that some spatial and social processes inevitably remain 'hidden' (Häkli, 2009), this quintessentially geographical approach of placing the variance of a phenomenon on a map also reveals details that theoretical scrutinizing over space, place and boundaries cannot provide. In this case, a visual examination of human values and economic performance revealed surprisingly systematic and similar geographical patterns for both variables (Paper II). This finding could not have been achieved from pure statistical modelling or by applying procedures from regional science, which often aim to filter out spatial autocorrelation (relatedness) in the data instead of exploring it further.

In sum, the geography of wellbeing and development is a complex phenomenon and understanding its patterns requires a combination of cultural, institutional and economic perspectives. Furthermore, human values play a central role in defining the wellbeing and development of societies and regions, and they are also able to shed additional light on the 'paradoxes of affluence' on different geographical scales. The final section of this thesis briefly discusses the possible policy relevance of these results.

## 6.2 The policy relevance of the geographies of wellbeing and development

Different forms and scales of governance typically attempt to justify their actions and specific policies with the argument that they will lead to an improvement in the wellbeing of the population. Consequently, a study of the effect of context on wellbeing and the geographical variance of its different forms is relevant to policy makers concerned with concepts such as spatial justice, territorial inequalities and uneven development.

It has also been suggested that SWB measures and data could be utilized directly by including them as components in cost-benefit analyses (O´Donnel et al. 2014), an approach used for calculating and comparing the benefits and costs of public policies. However, this thesis argues for a more indirect utilization of SWB analyses, as their primary value is in informing policy makers of the multidimensional nature of wellbeing and the linkages between different measures of wellbeing and development. Moreover, geographical analyses of SWB are able to detect sources of heterogeneity in wellbeing that other social sciences operating in aspatial contexts might neglect. Heterogeneity can arise from different locations, contexts and scales of SWB analyses and needs to be acknowledged while forming and evaluating of public policies.

However, the primary aim of this thesis was not to offer direct suggestions for policy making. Nonetheless, there are certain issues where the link between the results of this thesis and public policy making appears evident. First, as noted earlier, Papers 1 and 2 investigate the question of the direction of causality between objective (economic) and subjective (eudaimonic) indicators of wellbeing and development. The conceptual and theoretical discussion in these papers ques-

tions the prevailing logic that economic wealth leads directly to an increase in subjective wellbeing through better possibilities for material consumption and preference satisfaction.

Second, the results in paper III on the negative effect of the metropolitan context merit attention in policies of 'urban growth'. The study findings challenge the underlying values behind such policies and also their effectiveness in promoting the wellbeing of urban or metropolitan residents. The negative wellbeing effect of living in large metropolitan areas is also of special concern to those policies based on the principles and assumptions of agglomeration economies. The results presented in this analysis converge with certain classical theories of urban sociology, which suggest a trade-off between the size of a metropolitan area and the wellbeing of its residents.

Finally, the results in Paper IV on the different wellbeing effects of macroeconomic changes in different socio-economic layers resonate with the concept of 'inclusive growth'. This concept, which concerns promoting the distribution of opportunities and wellbeing to all segments of the population, has recently been included as a key objective for various institutions and agendas, such as Europe 2020 – the EU's growth strategy for the coming decade. The framework presented in Paper IV of this thesis offers a way of examining whether different socio-economic groups, i.e. classes, react differently to changes in macro-economic indicators in terms of life satisfaction.

To conclude, the framework and results on the geographies of wellbeing and development presented in this thesis have a clear and strong policy relevance for a wide range of institutions and forms of governance operating on supranational (EU), national and subnational (regions, provinces and city regions) scales. SWB measures can be used for analysing the externalities associated with broader societal processes, such as neo-liberalism, urbanization and the polarization of spatial economies. Also, it can be used to shed additional light to the process and rational behind rescaling state spaces such as "city regionalism". It can reveal the underlying values behind such agendas as addition the fact that SWB measures can be used to evaluate the changes in the spatial pattern of wellbeing between and within (city)regions. Ultimately, the research design and framework of this thesis can be used to empirically address one of the most central questions of regional studies: what kind of development in subjective wellbeing do macroeconomic changes produce and for whom?

# References

Abbot, A. (2001). Chaos of disciplines. In S. Brint (Ed.), The future of the city of intellect: The changing of American university. Stanford: Stanford University Press.

Acemoglu, D., & Robinson, J. A. (2012). Why nations fail: The origins of power, prosperity and poverty. New York: Crown Publishers.

Allardt, E. (1974). About dimensions of welfare: An exploratory analysis of a comparative Scandinavian survey. Helsinki: Research reports - Research Group for Comparative Sociology, University of Helsinki.

Ambrey, C., & Fleming, C. (2013). Public greenspace and life satisfaction in urban Australia. Urban Studies, Epub ahead of print. doi:10.1177/0042098013494417

Angner, E. (2009). Subjective measures of Well-Being: Philosophical perspectives. In D. Ross, & H. Kincaid (Eds.), The Oxford handbook of philosophy of economics (pp. 1-24). New York: Oxford University Press.

Anselin, L. (2007). Spatial regression analysis in R. (No. 2015). Illinois, U.S.: Center for Spatially Integrated Social Science.

Aristotle. (2011). Aristotle's Nicomachean ethics. Chicago: Chicago University Press.

Aslam, A., & Corrado, L. (2012). The geography of wellbeing. Journal of Economic Geography, 12(1), 627-649.

Atkinson, S., Fuller, S., & Painter, J. (2012). Wellbeing and place. Farnham, Surrey, England: Ashgate.

Ballas, D. (2012). Happy people or happy places? A multilevel modeling approach to the analysis of happiness and wellbeing. International Regional Science Review, 35(1), 70-102.

Ballas, D. (2013). What makes a 'happy city'? Cities, 32, Supplement 1 (0), S39-S50. doi:http://dx.doi.org/10.1016/j.cities.2013.04.009

Ballas, D., & Dorling, D. (2013). The geography of happiness. In S. David, I. Boniwell & A. Ayers (Eds.), The Oxford handbook of happiness (pp. 465-481). Oxford, U.K.: Oxford University Press.

Balsiger, P. (2004). Supradisciplinary research practices: History, objective and rationale. Futures, 36(4), 407-421.

Bathelt, H., & Glückler, J. (2013). Institutional change in economic geography. Progress in Human Geography, Epub ahead of print. doi:10.1177/0309132513507823

Berry, B. J., & Okulizc-Kozaryn, A. (2011). An urban-rural happiness gradient. Urban Geography, 32(6), 871-883.

Berry, J. L., & Okulicz-Kozaryn, A. (2009). Dissatisfaction with city life: A new look at some old questions. Cities, 26(3), 117-124.

Bivand, R., Pebesma, E. J., & Gomez-Rubio, V. (2008). Applied spatial data analysis with R. New York: Springer.

Bobowick, M., Basabe, N., Paez, D., Jimenez-Aristizabal, A., & Bilbao, M. A. (2011). Personal values and wellbeing among Europeans, Spanish natives and immigrants to

Spain. Does the culture matter? Journal of Happiness Studies, 12(3), 401-419.

Bode, E., & Perez-Villar, L. (2014). Creativity, eduation or what? -on the measurement of regional human capital. Working paper series no. 1958. Kiel, Germany: Kiel Institute for the World Economy.

Boschma, R., & Frenken, K. (2011). The emerging empirics of evolutionary economic geography. Journal of Economic Geography, 11(2), 295-307.

Bruni, L., & Porta, P. L. (2007). Economics and happiness: Framing the analysis. Oxford: Oxford University Press.

Carr, E., & Chung, H. (2014). Employment insecurity and life satisfaction: The moderating influence of labour market policies across europe. Journal of European Social Policy, 24(4), 383-399.

Charron, N., Dijkstra, L., & Lapuente, V. (2014). Regional governance matters: Quality of government within European Union member states. Regional Studies, 48(1), 68-90.

Christopher, J. C., & Hickinbottom, S. (2008). Positive psychology, ethnocentrism, and the disguised ideology of individualism. Theory & Psychology, 18(5), 563-589.

Clark, A. E. (2003). Unemployment as a social norm: Psychological evidence from panel data. Journal of Labor Economics, 21, 323-351.

Clark, A. E., & Oswald, A. J. (1994). Unhappiness and unemployment. The Economic Journal, 104(424), 648-659.

Cockfield, G., & Courtenay Botterill, L. (2012). Signs of countrymindedness: A survey of attitudes to rural industries and people. Australian Journal of Political Science, 47(4),

Conradson, D. (2012). Wellbeing: Reflections on geographical engagements. In S. Atkinson, S. Fuller & J. Painter (Eds.), Wellbeing and place (pp. 15-34). Aldershot: Ashgate.

De Vaus, D. A. (2001). Research design in social research. London: SAGE Publications.

Deaton, A. (2008). Income, health, and wellbeing around the world: Evidence from the gallup world poll. Journal of Economic Perspectives, 22(2), 53-72.

Delhey, J., & Dragolov, G. (2014). Why inequality makes Europeans less happy: The role of distrust, status anxiety, and perceived conflict. European Sociological Review, 30(2), 151-165.

Diamond, J. (1998). Guns, germs and steel: A short history of everybody for the last 13000 years. London: Vintage.

Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective wellbeing: Three decades of progress. Psychological Bulletin, 125(2), 276-302.

Diener, E., & Seligman, M. (2004). Beyond money: Toward and economy of wellbeing. Psychological Science in the Public Interest, 5(1), 1-31.

Durkheim, E. (1893). The division of labour in society. Paris: Alcan.

Easterlin, R. A. (1974). Does economic growth improve the human lot: Some empirical evidence. In P. David, & M. Reder (Eds.), Nations and households in economic growth; essays in honor of Moses Abramowitz (pp. 89-125). New York: Academic Press.

Easterlin, R. A. (2004). The reluctant economist: Perspectives on economics, economic history, and demographics. Cambridge, U.K.: Cambridge University Press.

Easterlin, R. A., Angelescu, L., & Zweig, J. S. (2011). The impact of modern economic growth on Urban–Rural differences in subjective wellbeing. World Development, 39(12), 2187-2198.

Esping-Andersen, G. (1990). The three worlds of welfare capitalism. Cambridge: Polity.

European Social Survey (2004). Computing Scores for the 10 Human values. Bergen, European Social Survey Data Archive, NSD - Norwegian Centre for Research Data for ESS ERIC.

European Social Survey. (2016). About European Social Survey (ESS). Retrieved from http://www.europeansocialsurvey.org/about/ Accessed. 4 May 2017.

Eurostat. (2014). Eurostat regional database. Retrieved from http://ec.europa.eu/eurostat/help/new-eurostat-website

Fischer, C. (1975). Towards a subcultural theory of urbanism. American Journal of Sociol-

ogy, 80(6), 1319-1341.

Florida, R. (2008). Who is your city? New York: Basic books.

Florida, R. (2002). The rise of the creative class: And how it's transforming work, leisure, community and everyday life. New York: Basic Books.

Florida, R. (2005). Cities and the creative class. New York: Routledge.

Garretsen, H, & Martin, R. (2011). The Journal of Economic Geography a decade on: where do we go from here? Journal of Economic Geography 11, 207–213.

Glaeser, E. L. (2011). Triumph of the city: How our greatest invention makes us richer, smarter, greener, healthier, and happier. New York: Penguin Press.

Glaeser, E. L., Gottlieb, J. D. & Ziv, O. (2014). Unhappy cities. Seminar paper. Retrieved 11.2.2016 from http://www.hks.harvard.edu/inequality/Seminar/Papers/Glaeser14.pdf

Glaeser, E. L., & Saiz, A. (2004). The rise of the skilled city. Brookings-Wharton Papers on Urban Affaris, 5, 47-105.

Glaeser, E. L., Ponzetto, G. A. M., & Tobio, K. (2014). Cities, skills and regional change. Regional Studies, 48(1), 7-43.

Glenn, N., & Alston, J. (1967). Rural-urban differences in reported attitudes and behavior. The Southwestern Social Science Quarterly, 47(4), 381-400.

Goetzke, F., & Islam, S. (2016). Testing for spatial equilibrium using happiness data. Journal of Regional Science, Epub ahead of print. DOI: 10.1111/jors.12311

Granovetter, M. (1973). The strenght of weak ties. American Journal of Sociology, 78(6), 1360-1380.

Gray, M. (2012). Making space for wellbeing. Cambridge Journal of Regions Economy and Society, 5(1), 3-13.

Häkli, J. (2009). Geographies of trust. In J. Häkli, & C. Minca (Eds.), Social capital and urban networks of trust (pp. 13-36). Aldershot: Ashgate.

Helliwell, J., Layard, R., & Sachs, J. (2012). World happiness report. Columbia. U.S. The earth institute, Columbia University.

Holt, L. (2008). Embodied social capital and geographic perspectives: Performing the habitus. Progress in Human Geography, 32(2), 227-246.

Huppert, F. A. (2009). Psychological wellbeing: Evidence regarding its causes and consequences†. Applied Psychology: Health and Wellbeing, 1(2), 137-164.

Huppert, F. A., Marks, N., Siegrist, J., Vazquez, C. & Vitterso, J. (2014). ESS6th round rotating module; personal and social wellbeing. Retrieved 11.3.2016 from http://www.europeansocialsurvey.org/methodology/questionnaire/ESS6_rotating_modules.html

Inglehart, R. (1990). Culture shift in advanced industrial society. Princeton, NJ: Princeton University Press.

Inglehart, R., & Baker, W. (2000). Modernization, cultural change, and the persistence of traditional values. American Sociological Review, 65(1), 19-51.

Jacobs, J. (1961). The death and life of great american cities. New York: Random House.

Jayawickreme, E., Forgeard, M., & Seligman, M. (2012). The engine of wellbeing. Review of General Psychology, 16(4), 327-342.

Jonas, A. & Moisio, S. (2016). City regionalism as geopolitical processes: A new framework for analysis. Progress in Human Geography. Epublished ahead of print, doi: 10.1177/0309132516679897, 1–21.

Jones, C. (2015). On capital, space and the world system: A response to Ron Martin. Territory, Politics, Governance, 3(3), 273-293.

Jordan, B. (2008). Welfare and wellbeing: Social value in public policy. Bristol: Policy.

Kasser, T., & Ahuvia, A. (2002). Materialistic values and wellbeing in business students. European Journal of Social Psychology, 32, 137-146.

Kitchin, R. (1997). Relationship between psychology and geography. Environment and Behaviour, 29, 554-573.

Klein, J. T. (1990). Interdisciplinarity: History, theory, and practice. Detroit, MI: Wayne State University Press.

Knox, P. (1975). Social wellbeing: A spatial perspective. Oxford: Oxford University Press.

Kristjansson, K. (2010). Positive psychology, happiness, and virtue: The troublesome conceptual issues. Review of General Psychology, 14(4), 296-310.

Layard, R. (2006). Happiness: Lessons from a new science. London: Penguin Books.

Le Gallo, J. (2014). Cross-section spatial regression models. In M. Fischer, & P. Nijkamp (Eds.), Handbook of regional science (pp. 1511-1533). Berlin: Springer-Verlag Berlin Heidelberg.

Lyall, C. (2011). Interdisciplinary research journeys: Practical strategies for capturing creativity Bloomsbury Academic.

Markusen, A. (2003). Fuzzy concepts, scanty evidence, policy distance: The case for rigour and policy relevance in critical regional studies. Regional Studies, 37(6-7), 701-717.

Martin, R., & Sunley, P. (2015). Towards a developmental turn in evolutionary economic geography? Regional Studies, 49(5), 712-732.

Martin, R. (2015). Rebalancing the spatial economy: The challenge for regional theory. Territory, Politics, Governance, 3(3), 235-272.

Mauricio Bini, L., Diniz-Filho, J. A. F., Rangel, T. F. L. V. B., Akre, T. S. B., Albaladejo, R. G., Albuquerque, F. S., . . . Hawkins, B. A. (2009). Coefficient shifts in geographical ecology: An empirical evaluation of spatial and non-spatial regression. Ecography, 32(2), 193-204.

McCann, P. (2014). Schools of thought on economic geography, institutions, and development. In M. Fischer, & P. Nijkamp (Eds.), Handbook of regional science (pp. 527-537). Verlag Berlin Heidelberg: Springer.

Moisio, S. & Paasi, A. (2013). From Geopolitical to Geoeconomic? The Changing Political Rationalities of State Space. Geopolitics, 18, 267–283.

Morrison, P. S. (2011). Local expressions of subjective wellbeing: The New Zealand experience. Regional Studies, 45(8), 1039-1058.

Morrison, P. S. (2014). The measurement of regional growth and wellbeing. In M. Fischer, & P. Nijkamp (Eds.), Handbook of regional science (pp. 277-289) Verlag Berlin Heidelberg: Springer.

Mumford, L. (1937). What is a city? Architectural Record, 82

Nayak, A., & Jeffrey, A. (2011). Geographical thought: An introduction to ideas in human geography. Harlow, England: Pearson Prentice Hall.

Nee, V. (2005). The new institutionalism in in economics and sociology. In N. J. Smelser, & R. Swedberg (Eds.), The handbook of economic sociology (pp. 49-74). Princeton, N.J.: Princeton University Press.

Noro, A. (2016). Sosiologian ja talouden onneton avioliitto [Unhappy marriage between sociology and economics]. In R. Heiskala, & A. Virtanen (Eds.), Talous ja yhteiskuntateoria II, modernin maailman talous ja sen kritiikki (pp. 115-140). Helsinki: Gaudeamus.

Nussbaum, M. C., & Sen, A. (1993). The quality of life. Oxford: Clarendon Press.

O´Donnell, G., Deaton, A., Durand, M., Halpern, D., & Layard, R. (2014). Wellbeing and policy. (). London: Legatum Institute.

OECD. (2013a). How's life? 2013: Measuring wellbeing. Paris: OECD Publishing.

OECD. (2013b). OECD guidelines on measuring subjective wellbeing. Paris: OECD Publishing.

Office for National Statistics. (2015). Measuring national wellbeing. Retrieved 10.10. 2015 from http://www.ons.gov.uk/ons/guide-method/user-guidance/wellbeing/index.html

Oishi, S. (2015). Geography and personality: Why do different neighborhoods have different vibes? Proceedings of the National Academy of Sciences of the United States of America, 112(3), 645-646.

Okun, M. A., Stock, W. A., Haring, M. J., & Witter, R. A. (1984). Health and subjective well-being: A meta-analysis. International Journal of Aging and Human Development, 19(2), 111-132.

Overman, H. (2004). Can we learn anything from economic geography proper? Journal of Economic Geography 4, 501–516.

Owen, G., Harris, R., & Jones, K. (2016). Under examination: Multilevel models, geography and health research. Progress in Human Geography, 40(3), 394-412.

Paul, V. A., Knox, L., & Smith, D. M. (1995). Classics in Human Geography revisisted: Smith, D. M. 1977: Human geography: A welfare approach. Progress in Human Geography, 19(3), 389-394.

Peck, J. (2012). Economic geography: Island life. Dialogues in Human Geography, 2012, Vol. 2(2), pp.113-133, 2(2), 113-133. Retrieved 12.10.2016 from http://fe.p.prod.primo.saas.exlibrisgroup.com:1701/primo_library/libweb/aboutCrossref.html

Peck, J. (2016). Economic rationality meets celebrity urbanology: Exploring Edward Glaeser's city. International Journal of Urban and Regional Research. 40(1), 1-30.

Perrons, D. (2012). Regional performance and inequality: Linking economic and social development through a capabilities approach. Cambridge Journal of Regions, Economy and Society, 5(1), 15-29.

Pike, A., Rodríguez-Pose, A., & Tomaney, J. (2007). What kind of local and regional development and for whom? Regional Studies, 41(9), 1253-1269.

Pike, A., Rodríguez-Pose, A., & Tomaney, J. (2016). Shifting horizons in local and regional development. Regional Studies, 51(1), 46-57.

Piper, A. T. (2014). Europe's capital cities and the happiness penalty: An investigation using the European Social Survey. Social Indicators Research, 114(3), 103-126.

Pittau, G., Zelli, R., & Gelman, A. (2010). Economic disparities and life satisfaction in european regions. Social Indicators Research, 96(2), 339-261.

Puntscher, S., Hauser, C., Walde, J., & Tappeiner, G. (2016). Measuring social capital with aggregated indicators: A case of ecological fallacy? Social Indicators Research, 125(2), 431-449.

Putnam, R. D., Leonardi, R., & Nanetti, R. Y. (1993). Making democracy work: Civic traditions in modern italy. Princeton (N.J.): Princeton University Press.

Repko, A. F. (2008). Interdisciplinary research: Process and theory. Los Angeles. SAGE.

Rodríguez-Pose, A. (2013). Do institutions matter for regional development? Regional Studies, 47(7), 1034-1047.

Rodríguez-Pose, A., & Maslauskaite, K. (2012). Can policy make us happier? Individual characteristics, socio-economic factors and life satisfaction in Central and Eastern Europe. Cambridge Journal of Regions Economy and Society, 5(1), 77-96.

Rokeach, M. (1973). The nature of human values. New York: Free Press.

Romer, P. M. (1990). Human capital and growth: Theory and evidence. Carnegie-Rochester Conference Series on Public Policy, 32(0), 251-286.

Ryan, R. M., & Deci, E. (2001). On happiness and human potentials: A review of research

on hedonic and eudaimonic wellbeing. Annual Review on Psychology, (52) 141-166.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. Advances in Experimental Social Psychology, 25, 1.

Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. Online Readings in Psychology and Culture, 2(1),Retrieved 11.11.2016 from doi:http://dx.doi.org/10.9707/2307-0919.1116

Schwartz, S. H. (2015). A proposal for measuring value orientations across nations. Retrieved 10.5.2016 from http://www.europeansocialsurvey.org/docs/methodology/core_ess_questionnaire/ESS_core_questionnaire_human_values.pdf

Scott, K. (2012). Measuring wellbeing: Towards sustainability? London, United Kingdom: Routledge.

Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology. an introduction. American Psychologist, 55(1), 5-14.

Simmel, G. (1976). 'The metropolis and mental life'. New York: Free Press.

Smelser, N. J., & Swedberg, R. (2005). The handbook of economic sociology. Princeton, N.J: Princeton University Press.

Smith, D. M. (1977). Human geography: A welfare approach. London: Arnold.

Sointu, E. (2005). The rise of an ideal: Tracing changing discourses of wellbeing. The Sociological Review, 53(2), 255-274.

Sommerville, M., & Rapport, D. (Eds.). (2000). Transdisciplinary; recreating integrated knowledge. Oxford: EOLSS Publishers.

Sørensen, J. F. L. (2014). Rural–Urban differences in life satisfaction: Evidence from the European Union. Regional Studies, 48(9), 1451-1466.

Sørensen, J. (2014). Rural–Urban differences in life satisfaction: Evidence from the European Union. Regional Studies, 48(9)

Stanca, L. (2010). The geography of economics and happiness: Spatial patterns in the effects of economic conditions on wellbeing. Social Indicators Research, 99, 115-133.

Stiglitz, J. E., Sen, A., & Fitoussi, J. (2009). Mismeasuring our lives: Why GDP doesn't add up. New York: New Press.

Strober, M. H. (2011). Interdisciplinary conversations: Challenging habits of thought. Los Angeles. Stanford University Press.

Stutzer, A. (2008). Stress that doesn't pay: The commuting paradox. Scandinavian Journal of Economics, 110(2), 339-366.

Tomaney, J. (2015). Region and place III: Wellbeing. Progress in Human Geography, Progress report, 1-9.

Tönnies, F. (1887). Gemeinschaft und gesellschaft. Leipzig: Fues's Verlag.

Wallerstein, I. (1974). The modern world-system : Capitalist agriculture and the origins of the european world-economy in the sixteenth century. New York: Academic Press.

Wirth, L. (1938). Urbanism as a way of life. The American Journal of Sociology, 44(1), 1-24.

Wolbring, T., Keuschnigg, M., & Negele, E. (2013). Needs, comparisons, and adaptation: The importance of relative income for life satisfaction. European Sociological Review, 29(1), 86-104.