Vulnerability and inequalities in health and wellbeing

The role of social policy

Björn Högberg
# Table of Contents

## Abstract ................................................................. iii
- Background ................................................................. iii
- Theoretical framework .................................................. iii
- Data and methods ........................................................ iv
- Results and conclusions ................................................ iv

## Abbreviations .......................................................... v

## Sammanfattning på svenska ........................................... vi
- Bakgrund ....................................................................... vi
- Teoretiskt ramverk ......................................................... vii
- Data och metod ............................................................ vii
- Resultat och diskussion ................................................ vii

## Included papers ......................................................... ix

### 1. Introduction .......................................................... 1
- 1.1 Social policy and the social determinants of health ................. 1
- 1.2 Contextualizing the thesis – Comparative welfare state and health research .... 4
- 1.3 The contribution of the thesis ........................................ 8

### 2. Aims and objectives ................................................ 11

### 3. Conceptual and theoretical framework ......................... 12
- 3.1 Health and health inequality .......................................... 12
  - 3.1.1. Health and wellbeing ........................................... 12
  - 3.1.2. Health inequality ................................................ 14
- 3.2 Causes of health inequality ........................................... 16
  - 3.2.1 Behavioral, material and psychosocial explanations .......... 18
  - 3.2.2 Resource-based explanations .................................. 19
  - 3.2.3 Conceptualizing resources ...................................... 22
- 3.3 The micro-level: Social stratification, social positions and vulnerability .......... 23
  - 3.3.1. Social positions .................................................. 23
  - 3.3.2. Vulnerable groups and dependence .............................. 24
- 3.4 The macro-level: The welfare state and social policy .................. 28
  - 3.4.1 A bird's eye view on the welfare state ......................... 28
  - 3.4.2 The welfare state and resources ................................ 30
  - 3.4.3 The social logic of distribution ................................ 32
- 3.5 Aligning the micro- and macro-level: Social policies, vulnerable groups and health inequalities .......... 33

### 4. Data and methods .................................................. 36
- 4.1 Cross-country comparative research .................................. 36
- 4.2 Data ......................................................................... 37
- 4.3 Operationalizing health and wellbeing .................................. 39
- 4.4 Operationalizing social position ....................................... 41
- 4.5 Operationalizing social policy ......................................... 43
  - 4.5.1 A variable-oriented approach .................................. 43
5. Included papers ................................................................. 52
   5.1 Paper I - Ageing, health inequalities and the welfare state: a multilevel analysis. 52
   5.2 Paper II - Gender and health among older people: What is the role of social policies? 54
   5.3 Paper III - Education policies and social inequality in wellbeing among young adults. 56
   5.4 Paper IV - Unemployment, wellbeing and the moderating role of education policies – A multilevel study. 58

6. Conclusions ........................................................................ 61
   6.1 Conclusions ...................................................................... 61
   6.2 Contributions .................................................................... 62

7. Discussion ........................................................................... 67
   7.1 Limitations ....................................................................... 67
   7.2 Strengths .......................................................................... 69
   7.3 Implications for research .................................................. 71
   7.4 Implications for social policy ............................................. 75

Acknowledgements .................................................................. 80

References ............................................................................. 81

Appendix ................................................................................ 1
   A1. Counterfactuals and experiments as the basis of causality .......... 1
   A2. Social action and a sociological conception of causality ........... 2
   A3 Consciousness, intention and social ontology ......................... 3
Abstract

Background
The present thesis investigates the role of social policy for the health and wellbeing of vulnerable groups from a comparative perspective. The welfare state is essential for the allocation of resources in contemporary societies, and can thereby shape the life chances, life circumstances and by extension health and wellbeing of, especially, vulnerable social groups. Comparative health and welfare state research has made great progress in recent years, but limitations remain, some of which this thesis intends to address: (1) A relative scarcity of studies looking at the impact of policies, as opposed to broad clusters of countries; (2) a need to take social services and “in kind”-benefits into account; (3) a need to focus on heterogeneous effects and on the intersection of different social categories or groups; (4) insufficient theoretical elaboration regarding the mechanisms linking policies to health inequalities.

The overall aim of this thesis is to investigate the moderating role of social policies for the association between vulnerable social positions – identified in relation to age-related transition points in to or out of the labour market – and health and wellbeing. The research objectives are as follows:

1. To study how the structure of public elderly care – more specifically, the amount and organization, respectively, of public care – moderates the association between social class and gender, and health and wellbeing, in old age.
2. To study how the structure of public pension systems – more specifically, the importance of minimum and standard pensions, respectively – moderates the association between social class and gender, and health and wellbeing, in old age.
3. To study how educational policies, at the secondary and tertiary level, moderate the association between by social class background and wellbeing among young adults.
4. To study how policies that provides opportunities to enter education moderate the association between employment status and wellbeing.
5. To contribute to the theoretical development of the research field, by developing and implementing a theoretical framework for analyzing the role of social policy for the health and wellbeing of vulnerable groups.

Theoretical framework
A central concept of the thesis is resources, understood as elements or phenomena that enable individuals to act and reach various goals. Resources are
tied to social positions, and vulnerable groups occupy social positions with few or low quality resources attached to them. Since resources in turn can be used in various ways to avoid health risks, reach various life goals, and improve wellbeing, vulnerable groups, with few resources at their disposal, are at risk of experiencing poor health and wellbeing. Social policies can, however, distribute resources of various kinds to vulnerable groups, and thereby enable these groups to achieve better health and wellbeing.

**Data and methods**

The research questions are addressed through a cross-country comparative approach, by fitting multilevel regression models on harmonized individual level data from the European Social Survey (ESS).

Health and wellbeing is measured by self-rated general health, limiting long-standing illness (functional limitations), and global life satisfaction. Vulnerable social positions are identified in relation to age-related transition points in to or out of the labour market: young adults (18 to 29 years), or older persons (65 to 80 years), respectively. In addition, the thesis looks at differences by social class or class background, gender, and employment status, within these age groups. For older persons, the focal social policies are pension systems and elderly care policies. For the younger age group, the focal policy domain is the education system.

**Results and conclusions**

In general, the empirical results showed that public investment in, and public organization of, elderly care was associated with smaller health inequalities by both social class and gender (research objective 1); that redistributive minimum pensions were associated with smaller health inequalities by social class, while more status-maintaining standard pensions were associated with larger gender-based health inequalities (research objective 2). Regarding the role of education systems, the empirical analyses showed that inclusive education policies – specifically low degree of tracking, generous second chance opportunities, low out-of-pocket costs for, and a larger supply of, education – were associated with smaller inequalities by both social background and employment status (research objectives 3 and 4).

The overall conclusion of the thesis is that redistributive social policies, which distribute essential resources to vulnerable groups, have the potential to reduce inequalities in health and wellbeing between vulnerable and more advantaged groups.
# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSDH</td>
<td>Commission on Social Determinants of Health</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>SOU</td>
<td>Statens offentliga utredningar</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>ESS</td>
<td>European Social Survey</td>
</tr>
</tbody>
</table>
Sammanfattning på svenska

Bakgrund

Föreliggande avhandling undersöker hur välfärdspolitikens utformning formar sårbara gruppers hälsa och välmående i ett jämförande perspektiv. Välfärdsstaten är en central aktör rörande fördelningen av resurser mellan individer och grupper i moderna samhällen, och kan därigenom påverka sårbara gruppars livschanser, levnadsomständigheter och i förlängningen hälsa och välmående.

Jämförande hälso- och välfärdsstatsforskning har gjort stora framsteg de senaste åren, men viktiga kunskapsluckor och begränsningar består. Denna avhandling avser att adressera fyra av dessa: (1) en brist på studier av specifika politikområden i motsats till breda geografiska kluster av länder; (2) ett behov av studier av välfärdsstatens tjänsteproducerande sida; (3) ett behov av fokus på heterogena effekter av välfärdspolitiken, det vill säga på olika typer av ojämlikhet, liksom interaktionen mellan dessa olika typer; samt (4) en otillräcklig teoretisk utveckling rörande de mekanismer genom vilka välfärdspolitiken påverkar ojämlikheter i hälsa.

Det övergripande syftet med denna avhandling är att undersöka hur välfärdspolitikens utformning påverkar sambandet mellan sårbara sociala positioner, och hälsa och välmående. Mer specifikt ämnar avhandlingen:

1. Att undersöka hur äldreomsorgens utformning – rörande hur mycket offentliga resurser som läggs på omsorg samt hur denna omsorg organiseras – påverkar ojämlikheter i hälsa och välmående mellan män och kvinnor, respektive mellan olika samhällsklasser, bland äldre.
3. Att undersöka hur utbildningssystemets utformning, avseende såväl grundskola och gymnasium som högre utbildning, påverkar ojämlikheter i välmående mellan unga vuxna beroende på klassbakgrund.
4. Att undersöka hur utbildningssystemets utformning, genom att skapa möjligheter att påbörja en utbildning, påverkar ojämlikheter i välmående mellan unga vuxna beroende på arbetsmarknadsstatus.
5. Att bidra till teoriutvecklingen inom forskningsfältet, genom att utveckla och implementera ett teoretiskt ramverk med fokus på hur välfärdspolitiken kan påverka sårbara gruppers hälsa och välmående.

Teoretiskt ramverk
Ett av avhandlingens centrala begrepp är resurser, vilket här definieras som saker eller fenomen som individer kan använda för att handla och därigenom nå olika typer av mål. Resurser är ofta bundna till sociala positioner, och sårbara grupper utmärker sig genom att de innehar sociala positioner med lite resurser eller resurser av låg kvalitet. Eftersom resurser kan användas flexibelt på olika sätt för att undvika hälsorisker, nå olika livsmål, och höja välmåendet, så löper sårbara grupper, med få resurser, högre risk att drabbas av dålig hälsa och lågt välmående. Välfärdspolitiken kan dock fördela nödvändiga resurser till sårbara individer och grupper, och därigenom hjälpa dessa till bättre hälsa och välmående.

Data och metod
Avhandlingen använder jämförelser mellan länder för att studera betydelsen av skillnader i länderns välfärdspolitik. Data kommer från European Social Survey (ESS), och i de empiriska artiklarna så används flernivåsmodeller, med separata intercept för varje land.

Hälsa och välmående mäts genom självskattad hälsa, hälsorelaterade funktionsbegränsningar, samt övergripande tillfredställelse med livet. Sårbara sociala positioner konceptualiseras med grund i åldersrelaterade övergångar in i eller ut från arbetsmarknaden, och grupperna som studeras är antingen mellan 18 och 29 år, eller mellan 65 och 80 år. Dessutom analyseras skillnader utifrån social klass, kön och arbetsmarknadsstatus (arbetslöshet) inom dessa ålderssegment. För det äldre åldersegmentet så står pensionssystemet och äldreomsorgen i centrum, medan utbildningssystemet är mest centralt för det yngre åldersegmentet.

Resultat och diskussion
Överlag så visade de empiriska resultaten att offentliga investeringar i, och offentlig organisering av, äldreomsorgen var relaterade till mindre skillnader i hälsa mellan män och kvinnor, och mellan samhällsklasser (syfte nr. 1). Stärkt grundskydd och större omfördelning i pensionssystemet var relaterat till mindre klassskillnader i hälsa, medan pensionssystem som gynnar individer med stark ställning på arbetsmarknaden var relaterade till större könsskillnader i hälsa, till nackdel för kvinnor (syfte nr. 2). Avseende utbildningssystemets betydelse så
visade de empiriska resultaten att en inkluderande utbildningspolitik – mer specifikt en sammanhållen grundskola, möjligheter till en andra chans att läsa in grundläggande kompetens, låga kostnader för den enskilde, samt en väl utbyggd högre utbildning med gott om utbildningsplatser – var relaterad till relativt högre välmående för unga vuxna med arbetarklassbakgrund samt för arbetslösa unga (syfte nr. 3 och 4).

Avhandlingens övergripande slutsats är att omfördelande välfärdspolitik, som fördelar viktiga resurser till sårbara grupper, kan minska ojämlikheter i hälsa och välmående mellan sårbara och mer gynnade grupper.
Included papers

The thesis is based on the following four papers:


1. Introduction

1.1 Social policy and the social determinants of health

When one individual inflicts bodily injury upon another such injury that death results, we call the deed manslaughter; when the assailant knew in advance that the injury would be fatal, we call his deed murder. But when society places hundreds of proletarians in such a position that they inevitably meet a too early and an unnatural death, one which is quite as much a death by violence as that by the sword or bullet; when it deprives thousands of the necessaries of life, places them under conditions in which they cannot live – forces them, through the strong arm of the law, to remain in such conditions until that death ensues which is the inevitable consequence – knows that these thousands of victims must perish, and yet permits these conditions to remain, its deed is murder just as surely as the deed of the single individual; disguised, malicious murder, murder against which none can defend himself, which does not seem what it is, because no man sees the murderer, because the death of the victim seems a natural one, since the offence is more one of omission than of commission. But murder it remains.

The quote from “The Condition of the Working Class in England” by Friedrich Engels (1845/2010: 95-96) gives a vivid, though horrifying, description of the extent and consequences of health inequalities in the wake of industrial society. Engels’ account, is, from a scientific point of view, surprisingly modern, with the role attributed to society throughout the analysis being most notable. Living in an age long before welfare states existed, Engels possessed no conception of social policy, or of policy or institutions in the modern sense at all. He instead talked about society, by which he meant the bourgeois state (political society) and bourgeois civil society together. Nevertheless, the quote sets the stage for the main characters in this thesis; policies and institutions, and the importance of these for the health and wellbeing of vulnerable populations. The key sentence is “the offence is more one of omission than of commission”; this, as will be shown in this thesis, still carries validity, at least in the context of vulnerability and vulnerable groups, groups that are, on account of their social positions, directly dependent on public support for their health and wellbeing. What Engels, given his pre-welfare state, 19th century context, is discussing, is, evidently, not the consequences of social policies, but of the absence thereof, and how vulnerability and inequalities are manifested through this absence.

Clearly, the conditions of vulnerable populations in contemporary Europe – the focus of this thesis – are in no way comparable to that of the working class in 19th century England. The salient features of health inequalities in the age of the
welfare state are, rather, inequalities in chronic conditions, disability, stress, or wellbeing more generally, though substantial mortality differentials persist to this day (e.g. Ljung et al. 2005; Whitefort et al. 2015; Patton et al. 2009). I should therefore make clear from the beginning that the present thesis does not deal with social “murder”, or mortality, except perhaps indirectly. The focus is on individuals’ subjective perceptions of their general health and wellbeing, and how social vulnerability and social policies are related to these. Nevertheless, due to the role still played by resource inequalities in generating inequalities in health and wellbeing, Engels’ penetrating gaze on industrial England remain illuminating to this day.

Disparities in health, wellbeing and illness have probably been around for as long as human society, but Friedrich Engels was one of the first to take a comprehensive, social scientific approach to the topic, and can be regarded as one of the forerunners of the social determinants of health-paradigm. Since Engels account, life expectancy in European countries have almost doubled (Mackenbach and Looman 2013), and many advanced welfare states guarantee universal health care, decent housing and basic economic security for most citizens. Yet, substantial inequalities in health persist also in contemporary welfare states, regarding socio-economic and gender differentials in mortality and morbidity as well as in subjective wellbeing (e.g. Mackenbach 2006; Mackenbach et al. 2018; CSDH 2008). For instance, two large-scale comparative studies of more than 20 European countries revealed that inequalities in subjective health and mortality based on income or education were present in each and every nation surveyed (Eikemo et al. 2008; Mackenbach et al. 2008). Moreover, recent studies show that relative differences in both mortality and subjective morbidity (self-rated health and activity limitations) between educational groups have widened across Europe over the last 30 or 40 years (Mackenbach et al. 2017; 2018; Hu et al. 2016). Alarming findings have also been reported from the US, with rising morbidity, mortality and “deaths of despair” among the low educated in particular (Case and Deaton 2015; 2017)

The persistence and extent of health inequalities also in high-income countries came to increased public attention already in 1980, in connection with the so called Black report in the United Kingdom (Townsend and Davidson 1992). Recent decades have seen a renewed upsurge in interest concerning health inequalities, in the scientific community as well as in public and political debates (Elo 2009; Bleich et al. 2012; Pickett and Wilkinson 2015). Scientifically, the study of health and health inequalities have, at least to an extent, seen a shift, from an exclusive individualistic-molecular understanding of disease to a broader perspective where “upstream”, underlying determinants of health, such as social conditions that in turn influence the direct molecular processes behind health, are also incorporated (Bharmal et al. 2015; CSDH 2008; Marmot 2010). It is
increasingly recognized that the focus on proximate origins of illness – such as microorganisms or genetic mutations – provides an incomplete and insufficient understanding of the complex processes underlying variations in health, and that a wider scope, including more distal (upstream) causes, is therefore required (Phelan et al. 2010). Related to this, it has been recognized that health is not only a matter of medically diagnosed disease, or the absence thereof. Health is multidimensional, related to individuals’ experiences of their own health, and thereby related to a more general notion of wellbeing (Huber et al. 2011).

The upstream causes of variations in health and wellbeing are not randomly distributed in the population, but follow a pattern across social groups, such that risk factors for poor health are more common among individuals in low social positions. This insight forms the basis for the social determinants of health-framework in public health, where the emphasis is on the “causes of the causes” (CSDH 2008; Marmot and Wilkinson 2006; Bharmal et al. 2015). Greater attention to social determinants logically implies greater attention to policy- and institutional factors as well; the institutions that shape the social structure are after all the most elementary upstream factors in the social determinants on health framework (Beckfield et al. 2015). The welfare state is from this perspective an essential macro-determinant of health and health inequalities (Bambra 2012).

At the level of politics and popular discourse, popular science books on health inequalities, such as “The spirit level” (Wilkinson and Pickett 2009) and “The status syndrome” (Marmot 2004), have become bestsellers, contributing to increased public awareness of the problem. The topic has become a political priority in many countries, as well as for the European Union (Mackenbach 2006). Calls to tackle disparities in health have been made by among others the OECD (2017) and the WHO (CSDH 2008), reducing health inequalities are included among the UN sustainable development goals (UN 2018), and the Swedish Social democratic government even initiated a “Commission for equity in health” in 2015 (SOU 2016). Notable is also that poor psychological wellbeing and mental health has been acknowledged as important public health concerns in their own right (Reijneveld 2005; Allen et al. 2014). Conditions related to psychological wellbeing today account for a substantial share of the global burden of disease, especially in high-income countries and among youth and young adults (Patton et al. 2009; Whitefort et al. 2015).

Despite the progress that has been made concerning the understanding of social and structural causes of present day health inequalities, much remains to be explored. Proximate individual-level health determinants as well as their social distribution are by now reasonably well understood (within certain limits, of course), but how the distribution of these determinants is shaped by macro-level
factors is less so (Beckfield and Krieger 2009; Diez Roux 2012; Dahl and van der Wel 2013; Beckfield et al. 2015; Gkiouleka et al. 2018). In other words, the process through which macro- (such as social policies or economic conditions) and micro- (or individual) level factors interact in producing social patterns of health and morbidity is an area that remains comparatively uncharted (Elo 2009; Gkiouleka et al. 2018). Moreover, much research regarding effects of policies on health inequalities have focused on rather proximate determinants such as local interventions, not on the social and economic policies that “probably have the greatest potential to reduce health inequalities” (Hu et al. 2017: 1). In relation to the cross-country comparative focus of this thesis, it should also be noted that the causes of the observed variation in the extent of social inequalities in (subjective) health across European welfare states are still largely unknown (Mackenbach et al. 2018). The ambition with this thesis is thus to address a number of limitations in this specific research field.

The next section, section 1.2, provides the research context in which the thesis is situated, and, by discussing this context, also carves out the specific contributions of the thesis to the existing literature. Section 2 takes this discussion as point of departure in order to formulate the overall aim and the specific research objectives of the thesis. Thereafter follows a lengthier section (section 3) in which the core theoretical framework, binding the thesis and the included empirical papers together on a more abstract level, is developed. This framework is in many ways the heart of the thesis, and discusses health, health inequality and its causes, social vulnerability, social policy, and how these can be understood in tandem. Section 4 describes the data, variables and the methods that are used in the empirical papers, and relates these to the theoretical framework described in section 3. Section 5 describes the respective papers that constitute the empirical backbone of the thesis. Section 6 concludes and sums up the results of the thesis, while section 7 discusses the results and their implications, as well as the limitations of the thesis.

1.2 Contextualizing the thesis – Comparative welfare state and health research

As stated, the growing emphasis on the social determinants of health implies a greater attention to policy- and institutional factors as well, since it is largely institutions that shape the distribution of said social determinants. In Europe, these institutions are tightly intertwined with the welfare state, which is the very raison d’etre of this thesis. Welfare state research and, especially, theory took a comparative turn early on, in the sense that explicit comparison between configurations of social policies in different countries was central to the conceptual development of the field (e.g. Titmuss 1974). The background to this emphasis on comparison as an analytical tool is that many social policies, such as
those investigated in this thesis, tend to be both nation-wide, and thus identical
for all citizens in a country, and characterized by inertia and path-dependence,
and thus rather stable over time. The first implies that the distinctiveness of
national policies is easiest to spot from the outside, as it were, by contrasting them
against policies in other countries (cf. Ragin 2004/1987; Esping-Andersen and
Myles 2009). The latter implies that the consequences of policies are sometimes
difficult to study in single country contexts, since variation in both causes and
effects is a requirement for these to be analysed (King et al. 1994) and, at least
with regard to policies, the spatial variation (i.e. across countries) tends to be
larger than the temporal variation.1

The large push in the comparative turn, however, came with Esping-Andersens
(1990) now classic “The three worlds of welfare capitalism”, which since then has
provided the reference point around which most other welfare state research
gravitates. Although the concept of welfare regimes, as popularized by Esping-
Andersen, is not employed in this thesis, welfare regimes, and the debates
sparked by Esping-Andersen, can nevertheless be used to motivate, anchor and
contextualize the contributions of this thesis. Besides the empirical aspects
concerning which country belongs to which welfare regime, or whether countries
are so diverse so as to render the concept of regimes meaningless (see e.g. Kasza
2003), much of the comparative welfare research post “The three worlds of
welfare capitalism” has centered around the twin problem of transfers vs.
services, and social class vs. other dimensions of inequality (cf. Korpi 2000).
Comparative welfare state research post Esping-Andersen was, rightly or
wrongly, criticized for a narrow focus on cash transfers – that is, policies that
allocate financial resources, such as pensions and unemployment benefits – thus
giving short shrift to the second pillar of the welfare state, the service dimension
(that is, policies in which benefits “in kind”, such as education or care, are directly
produced by the welfare state). Criticism was also directed at the alleged equally
narrow focus on social class or related dimensions of social stratification, at the
expense of especially gender and gender inequalities (Sainsbury 1999; see also
Esping-Andersen 2009). Moreover, these two criticisms were interdependent:
the service dimension, especially care, is of utmost importance from the
perspective of gender, as care work is highly gendered, performed predominantly
by women, and, importantly, in the absence of public care policies, often
performed as unpaid work.

The comparative health literature, at any rate that with a welfare state focus,
began to develop during the 1990s, that is, after or in conjunction with the debates
sparked by “The three worlds of welfare capitalism” (e.g. Mackenbach 2012; Dahl

1 By no means do I want to imply that cross-country comparison is the only or necessarily
best way to study policies, only that it is one among perhaps several fruitful ways.
Consequently, it was from its inception shaped by these debates, and has, at least to a degree, avoided the trap of e.g. gender-blindness (Bambra et al. 2009; Borrell et al. 2014; Palència et al. 2017). Nonetheless, although gender inequalities in health have been rather well illuminated, also from a comparative perspective, social class or related measures of socioeconomic stratification remains the dominant perspective in health inequality research. In particular, more fine-grained perspectives on the social structure, perspectives that can account for the real-world complexity of social stratification, by, for instance, exploring interrelations between different dimensions of inequality, are still rather absent (Smith et al. 2015). Thus, Gkiouleka et al. (2018: 92) forcefully argue for the need of a research agenda that “goes beyond the purely socioeconomic” and “accounts for the complexity of the intertwined influence of both individual social positioning and institutional stratification on health”, a statement which simultaneously makes clear that social positions and health cannot be understood outside of the institutional context in which individuals live.

More conspicuous, perhaps, given the debate referred to previously, is the relative negligence of the service dimension in the comparative health literature. With the exception of health care systems (Huijts et al. 2010; Beckfield et al. 2013; see also Esping-Andersen and Myles 2009), core welfare state services such as the education system, social services, childcare and elderly care are largely unexplored in this context (Bergqvist et al. 2013; for recent exceptions with a focus on the education system, see e.g. Rathmann et al. 2016; Montt and Borgonovi 2018). To some extent this can be explained by the lack of adequate data; to this day, we lack comparable measures for elderly care that go beyond aggregate spending for the majority of European welfare states. This probably has to do with the fact that services are often organized at lower administrative levels, and that some needs that services meet, such as care needs, are difficult to codify. Be that as it may, the consequence is that central pillars of the welfare state have often been left out of focus, which, considering that expenditure on services equal or exceed expenditure on cash transfers across high-income countries (OECD 2011), is an omission well worth addressing.

The need to put the service dimension of the welfare state at center stage is particularly pressing in the context of the paradigm shift of European welfare states away from “social protection” (i.e. transfers) to “social investment” (i.e. services) (Morel et al. 2012). While much of the traditional activities of European welfare states, such as unemployment benefits and pensions, have seen cutbacks

---

2 However, note that Émile Durkheim’s famous *Le Suicide*, tracking variation in suicide rates across and within countries, was published already in 1897 (Durkheim 1897/1966)).
in recent decades, social investment type of policies, most notably perhaps education, but also policies aimed to enable women to take up paid employment, such as child and elderly care, have expanded across the continent (Esping-Andersen 2009; Hemerijck 2017). Against this background, Bergqvist et al. (2013: 17), in their review of the existing comparative health literature, make a call for research “where both the ‘productive’ and ‘protective’ dimensions of welfare state activities are included”, research that thereby acknowledges the complexity and nuance of contemporary social policy.

So, what is the current state of comparative research on welfare states and health (henceforth comparative health research)? Recent overviews of the field have identified a number of gaps and limitations in the existing literature, including empirical and theoretical inconsistencies that call for explanation, use of blunt instruments and measurements of social inequality and (especially) policy, insufficient theorizing, and a lack of attention to causal mechanisms linking policies to health inequalities (Beckfield and Krieger 2009; Brennenstuhl et al. 2012; Muntaner et al. 2011; Bergqvist et al. 2013; Beckfield et al. 2013; Borrell et al. 2014; Lundberg et al. 2015; also Beckfield et al. 2015 and Mackenbach et al. 2017; Beckfield et al. 2015). Using the terms of Brennenstuhl et al. (2012: 399), much current research remains "black box" accounts of the explanandum in question, and Beckfield and Krieger (2009: 168) some years ago went as far as to speak about the need to “address the enormous gaps in knowledge”.

The relative (as is clear from the brief review above, the field is by no means non-existent) dearth of studies with a focus on policies and other macro-level factors is evident when reviewing published research papers using cross-country harmonized health surveys, surveys that, due to their harmonization, are ideally suited for studying the macro determinants of health (cf. Hanushek and Wößmann 2010). Out of the 70 papers published in peer-reviewed journals using data from the Health Behavior of School Aged Children (HBSC) in 2016, only three investigated the impact of country-level factors on health or health inequalities, two of which looked at policies (HBSC 2018; own calculations). Likewise, out of the 128 papers published in peer-reviewed journals the same year using data from the Survey of Health and Ageing (SHARE), only four looked at country level factors and their effects on health or health inequality (SHARE 2018; own calculations). Considering that these are surveys specifically designed for cross-country comparative health research, and that comparative research is ideally suited for analyzing country-level factors such as policies (Elo 2009; Hanushek and Wößmann 2010; Muntaner et al. 2011) these numbers must be regarded as being rather low. This snapshot of contemporary, comparative

---

3 A similar calculation could in principle be done with ESS data (the main source of individual-level data in this thesis). However, ESS is a multipurpose survey, and the vast
health research makes it evident that, despite great progress in investigating the social determinants of health, the gravity in the field is around individual-level risk factors, while factors further “upstream” are at risk of falling out of sight (cf. Hu et al. 2017). Smith et al. (2015: 299) conclude that there appears to be an “inverse evidence law”, such that, due to data limitations and the nature of statistical methodology, it is easier to do research on proximate causes such as health-damaging behaviors than on upstream causes such as policies and institutions.

1.3 The contribution of the thesis

Broadly speaking, this thesis intends to contribute to a deeper understanding of the role of social policies for inequalities in health. In particular, four broad limitations, identified in the above-mentioned overviews of the research field, serve as motivations for the thesis. (1) A relative scarcity of studies looking at the impact of specific policies, as compared to broad clusters of countries, such as welfare regimes of geographic comparisons (Brennenstuhl et al. 2012; Bergqvist et al. 2013). (2) Related to this is a need to take into account social services and not predominantly the financial transfer dimension of social policy (Bergqvist et al. 2013). For instance, to the best of my knowledge, only two comparative studies have investigated educational policies from a health and wellbeing perspective (Rathmann et al. 2016; Montt and Borgonovi 2018) (3) A lack of focus on specific social groups and subgroups, and especially, their intersection (Borrell et al. 2014; Smith et al. 2015). Effects of policies are rarely uniform across social and demographic groups, and a more fine-grained perspective on the social structure is necessary to identify these differential effects (Beckfield and Krieger 2009; Gkiouleka et al. 2018). For example, the vast majority of published studies on the topic have been made on the full adult population, or restricted to the working age population, despite the fact that the importance of social policies for life chances and living standards is greatest for children/youth and older persons, as these groups are unable to support themselves through paid work. I argue that the importance of social policies can best be understood by investigating the groups and individuals who are most dependent on public support (Saltkjel 2018). (4) A lack of theoretical elaboration regarding the mechanisms linking policies to health inequalities, or, following Brennenstuhl et al. (2012: 399), the majority of published studies are not related to health at all, meaning that the results of such a calculation in the case of ESS would be difficult to interpret.
tendency of much research to remain "black box” accounts (also Beckfield and Krieger 2009; Beckfield et al. 2013).4

The first of these broader limitations – the invisibility of specific policies and services – is in this thesis addressed rather directly, by identifying and using indicators of social policies that are specific, limited in scope, and have a concrete, theoretically plausible causal link to the health of individuals. Moreover, a special emphasis is placed on policies related to the production of services, such as elderly care or education, thereby addressing the second limitation. The third limitation – lack of specificity and complexity in the conceptualization of social groups – is addressed through the concept of vulnerability, which brings together the rather diverse ranges of social groups included in the respective papers in one conceptual structure. Specifically, this thesis disaggregates the social structure by class or class background, gender, labour market status, and, perhaps most distinctively, age. Age has arguably been the most overlooked and under-theorized characteristic in this field to date, even though it is in a way the most important from the perspective of dependence on the welfare state (Barr 1998). The fourth limitation – the lack of theoretical elaboration regarding the mechanisms involved – is partly addressed by the papers, which all provide detailed accounts of the proposed mechanisms linking the macro to the micro, and partly through this \( \text{kappa} \), which uses existing research on health inequalities to develop a theoretical framework for analyzing social vulnerability and health from the perspective of social policy. The limitations, and solutions, are interrelated, and the attention in this thesis to (1) specific policies and (3) social subgroups goes hand in hand with the intention to address this fourth limitation, a point that will be further elaborated upon in sections 3.4 and 3.5. Here, suffice to say is that, by disaggregating social policies as well as social groups, the alignment of these two, that is, the specification of a concrete causal link between them, becomes more transparent.

Each of the included papers also address a specific gap in the literature, gaps that are related to, but more delimited and concrete than, the broader gaps addressed by the thesis as a whole. Paper I addresses a lack of research on pension policies and social health inequalities (cf. Avendano et al. 2009; Majer et al. 2011;

4 I should stress that these are primarily gaps and limitations in a relative sense, that is, that these aspects have to date been comparatively neglected. I do not claim that there is no (comparative) research on for instance specific policies within the service dimension of the welfare state. And while the included empirical papers do address more well-specified gaps that were until then unexplored empirically, the above list of limitations should perhaps best be read as a call for the need to rebalance the research agenda towards these dimensions.
Norström and Palme 2010), and is, to the best of my knowledge, novel in looking at the role of elderly care for social health inequalities in a comparative perspective. Paper II extends the research on how public policies shape gender-based health inequalities. As stated by a recent review of this field: “the current body of evidence is small” (Borrell et al. 2014: 43), and the research often lacks a focus on specific subgroups and policies, including older people, with only two studies on that age group thus far (Esser and Palme 2010; Van Oyen et al. 2010; see also the literature review by Palència et al. 2017).

Papers III and IV aim to address the almost conspicuous shortage of research on the role of the education system for health and wellbeing; the gap being conspicuous because of the undeniable importance of education and the education system for the life chances of children and youth. Paper III extends the very meagre literature on (systems-wide) educational policies and social inequalities in health among youth (Rathmann et al. 2016), while Paper IV takes a novel approach to the question of how policies can mitigate the negative effect of unemployment on wellbeing, by focusing on educational policies and the opportunities generated by these.
2. Aims and objectives

The overall aim of this thesis is to investigate the moderating role of social policies for the association between vulnerable social positions and health and wellbeing. Vulnerable social positions are identified in relation to age-related transition points in to or out of the labour market; in other words, by occupying social positions where life chances are typically highly dependent on social policies. Thus vulnerability and dependence can be seen as two sides of the same coin. In addition, vulnerability is related to social class, gender, labour market status and age, all key dimensions of the social division of labour. Specifically, the focal groups are young adults, typically on the route to establish themselves in the labour market, and older persons, typically having just left the labour market, and inequalities by labour market status, class, or gender within these age groups (see specific objectives). With regard to social policies, a special focus in this thesis is on the service dimension of the welfare state. This aim is formulated on the basis of a number of research and knowledge gaps that have been identified in the relevant literature(s), as explicated above.

Specifically, the objectives are as follows:

1. To study how the structure of public elderly care – more specifically, the amount and organization, respectively, of public care – moderates the association between social class and gender, and health and wellbeing, in old age.
2. To study how the structure of public pension systems – more specifically, the importance of minimum and standard pensions, respectively – moderates the association between social class and gender, and health and wellbeing, in old age.
3. To study how educational policies, at the secondary and tertiary level, moderate the association between by social class background and wellbeing among young adults.
4. To study how policies that provide opportunities to enter education moderate the association between employment status and wellbeing.
5. To contribute to the theoretical development of the research field, by developing and implementing a theoretical framework for analyzing the role of social policy for the health and wellbeing of vulnerable groups.
3. Conceptual and theoretical framework

Section 3 is, as stated, in a way the heart of the thesis, and binds together the separate empirical papers on a more abstract, conceptual level. The framework is, as it were, built from the bottom up, starting with defining the *explanandum*, health and inequalities in health in section 3.1. Section 3.2 presents existing theories concerning the (social) *causes* of health inequalities, relates these theories to each other, and presents the perspective used in this thesis. The focus then shifts to the sociological domain (section 3.3), in which the question of how to conceptualize the social structure, and, in the end, social positions, is discussed. This then forms the basis of the conceptualization of vulnerability and vulnerable social groups that is used in the thesis. A second shift of focus, from the micro (individual) to the macro (societal or country) level, leads to a discussion of how to understand and conceptualize social policy, in section 3.4. Section 3.5 aligns the previous sections, by explicating how social vulnerability relates to health, and how in turn social policy can shape this relationship. The framework is constructed through synthetization, by aligning existing perspectives on health, health inequality, social structure and social policy into one coherent structure. It is thus in a sense not so much a product of construction as of integration.

3.1 Health and health inequality

3.1.1. Health and wellbeing

Two of the key concepts, and in statistical jargon the dependent variables, of this thesis are health and wellbeing. For brevity, I will hereafter often refer to health and wellbeing as “health”, but, as we shall see, health and wellbeing are intimately related, and subjective health and subjective wellbeing even more so. Health is a difficult concept, in the sense that it is a technical (medical) as well as an everyday, lay term, and thus lacks the clarity and precision that is ideal for scientific concepts. It is a word that most people has an intuitive understanding of, but these understandings are subjective and not necessarily identical across individuals, nor to how it is used scientifically. Moreover, it is a word with clear normative connotations, and it is typically regarded as self-evident that health is a positive thing. From a scientific point of view, it is thus a potentially problematic concept.

Health can be seen from at least two perspectives: (1) from a strict biomedical point of view (as the absence of biomedical abnormalities or disease), or (2) as a more general concept relating to wellbeing and quality of life (cf. WHO 1946; Huber et al. 2011). This distinction can be reformulated as a binary vs.
encompassing understanding of health. Sometimes a second dimension is added, distinguishing between objective and subjective concepts of health, where the objective refers to what is medically diagnosed in accordance with objective criteria by professional medical experts, and the subjective to individuals’ own perceptions of their health status (Cleary 1997; Quesnel-Vallée 2007; Sen 2002). The distinction between objective and subjective health in practice often overlaps with the distinction between biomedical/binary and wellbeing-related/encompassing conceptions of health, since biomedical measurements are most appropriately based on objective criteria and expert judgement, while there are no generally agreed upon objective measures of wellbeing; the expert in these cases are rather the individuals’ themselves and their own phenomenological experiences.

Both perspectives are useful and are often complementary. In this thesis, I mostly discuss health in line with the more encompassing view of health, and empirically operationalize health as subjective health or wellbeing in all the included papers (see section 4.2). However, much of the theoretical matter developed in the kappa as well as in the papers can be valid in relation to a binary health conceptualization as well, although empirical generalizations to diagnosed conditions should be made with great caution given the subjective health measures utilized. Moreover, the encompassing conceptualization of health of course includes diagnosed conditions and other “binary” states; the idea is not to replace a focus on (diagnosed) illness with a focus on “wellness”, but to widen the scope of the analysis such that the strict and sometimes arbitrary line between healthy and non-healthy is less decisive.

Nevertheless, in the context of this thesis, the more encompassing definition has some distinct advantages. For one thing, it is well suited for handling mental health and wellbeing, where particular diseases are not clearly demarcated, neither from each other nor from “absence” of mental illness (Wakefield 1992; 2007). An encompassing conceptualization also has the benefit of sharing a certain elective affinity with the ambition of modern welfare states. Most of the social expenditure budget of contemporary welfare states do not go into programs

5 The traditional biomedical definition of health is that health implies the absence of biomedical abnormalities or disease, where disease is seen as a medically diagnosed condition (Misselbrook 2014; Huber at al. 2011). This is a binary and negative definition, in the sense that health is equated with the absence of disease, and disease is thus by definition the same as “non-health”. This is, from the perspective of institutionalized medicine and health care, a logical definition, in that it takes as the point of departure concrete medical conditions (whether physical or mental), which are amenable to medical interventions.
that are designed to prevent or cure specific diseases (Pega et al. 2012), but is instead devoted to programs designed to raise the overall welfare and standard of living of citizens, in the context of which a more encompassing concept of wellbeing is applicable.

Inherent in more encompassing health conceptualizations is also that health is multidimensional, that is, it is not limited to physical infirmity and sickness, but contains psychological dimensions too (cf. WHO 1946; Antonovsky 1987). In sum, the way health is employed in this thesis implies that health is both encompassing – meaning that states other diagnosed conditions can be of relevance – and multidimensional – meaning that individuals’ subjective experiences are taken into account. This definition partly overlaps with how wellbeing is usually defined, although wellbeing is often limited to mental and psychological aspects (e.g. WHO 2014). For this reason the thesis consistently utilizes the concept of health; however, unless indicated otherwise, the meaning of health is this broader one, which incorporates psychological wellbeing. It should also be borne in mind that psychological wellbeing is the outcome measure in two of the included papers (papers III and IV).

3.1.2. Health inequality
If this is health, then what is inequality in health? One way to define it is as any situation in which health is not equally distributed between individuals in society, that is, as variations in health or different health outcomes across individuals. Health equality would then correspond to a minimum amount of variation in a certain health outcome (Murray et al. 1999), either such that the absolute range between highest and lowest (“best” and “worst” health) is minimized, or such that the distribution of observed health outcomes within this range is compressed (i.e. a low “GINI coefficient”). This definition is sometimes adopted in empirical health inequality research (e.g. Popham et al. 2013), but it is not what, in research as well as the public debate, is usually meant with the term health inequality (e.g. Bartley 2004). In most applications of the term (including in this thesis), health inequalities refer to systematic differences in health between social groups; that is, the variation in a certain health outcome is not random, but follows a consistent pattern across social groups, such that some groups systematically have better or worse health on average (Kawachi et al. 2002; Whitehead and Dahlgren 2006). This definition of health inequality – as systematic, socially produced differences across social groups – is sometimes referred to as “social group health differences”, to avoid confusing it with health inequality as defined by inter-individual variation in health (Murray et al. 1999).

Social groups can here fruitfully be understood in a Weberian sense, as any socially delimited subgroup within a population, which share certain ascriptive
qualities or life conditions, and, crucially, life chances (e.g. Weber 1922/1964; an extended discussion of this issue is provided in sections 3.3.1 and 3.3.2) In practice, health inequality typically refers to inequality based on some sort of socio-economic measure, such as education, income or social class, but there is nothing inherent in the concept that excludes other ascriptive characteristics such as gender or ethnicity from being the focal stratifying variable (Bartley 2004). However, as we shall see, most theoretical development regarding the mechanisms linking membership of certain social groups to (inequality) in health, as well as to how social policies modify these mechanisms, has been made with regard to socio-economic stratification.

Health inequality, moreover, typically implies that the systematic inequality is socially produced (Whitehead and Dahlgren 2006). This entails that inequalities are, in principle, amendable, since the social conditions that produce the inequalities are human constructs and can be transformed. Biologically or genetically induced differences in health, on the other hand, even if they are systematic across groups, are not regarded as health inequalities. The fact that older age groups have higher risks of dementia, that women have higher risks of breast cancer, or that ethnic groups with lighter skin color and less melanin have higher risks of skin cancer, can thus not be taken as evidence of health inequalities. The notion of health inequalities being socially produced thus closely relates to the social determinants of health-framework. It should also be stressed that inequalities in health, including mental health, are present across the full social gradient (Pickett and Wilkinson 2015; Schnittker 2004), that is, it is not only a matter of the poor and deprived being less healthy than the rest, but also of someone with 17 years of education being healthier than someone with 16 years of education (Cutler and Lleras-Muney 2008) or a higher ranked civil servant being healthier than a lower ranked colleague (Marmot et al. 2005).

Dahlgren and Whitehead (2006) add to this a third criterion, that health inequalities are unfair, by which they mean that they are produced by “unjust social arrangements” and “offend common notions of fairness” (see also Bleich et al. 2012). This is, in my view, an unfortunate confusion of descriptive and normative considerations (Weber 1919/1995). Whether or not a social arrangement or outcome is to be regarded as fair or not is a normative judgement, which cannot be (dis)proved scientifically. To conflate value and fact is not only redundant from a scientific point of view, but it also brings with it a range of difficulties regarding definitions and boundaries. The fairness-criterion is, however, intrinsic to the definition of health inequity, where inequitable is equivalent to unfair or unjust. The difference between variation in health, health inequality, and health inequity is summed up in Table 1.
Table 1. Variation, inequality, and inequity in health

<table>
<thead>
<tr>
<th></th>
<th>Differences between individuals</th>
<th>Systematic differences between groups</th>
<th>Socially produced</th>
<th>Unfair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation in health</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inequality in health</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Inequity in health</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Given this definition, what do we know concerning the existence of health inequalities today? With regard to the groups in focus for this thesis, ample evidence exists on the existence of substantial disparities between men and women, higher and lower classes, unemployed and employed, and across and within different age groups. Women have lower mortality but higher morbidity than men (Case and Paxson 2005; Rieker and Bird 2005), a pattern that exists across countries (Artazcoz et al. 2014) and in old age (Crimmins et al. 2011). Class or socioeconomic differences in both mortality and morbidity are ubiquitous across Europe (Eikemo et al. 2008; Mackenbach et al. 2008; Mackenbach 2006), also in youth (Due et al. 2011; Högberg et al. 2018) and old age (Avendano et al. 2009), with socially disadvantaged groups consistently having poorer health. The negative effects of unemployment on health, including among young adults, is also well documented (Paul and Moser 2009; Voßemer and Eunicke 2015).

3.2 Causes of health inequality

Given the definition of health inequality given above, as (1) systematic and (2) socially produced health differences between social groups, the causes of, or mechanisms behind, health inequalities are in principle all social determinants of health that are unevenly distributed across relevant social groups. This is also the approach taken by the Commission on Social Determinants of Health in their final report to WHO (CSDH 2008), which basically lists all major social determinants and provide policy recommendations on each. The danger with this very ambitious approach to explanation is that of “risk factor epidemiology” (Susser 1998), that is, that it often results in an extensive inventory of risk factors (including specific social determinants), without a clear idea of how these risk factors interrelate in a causal process linking social structure and positions to inequalities in health. From an analytical and explanatory perspective, a more constructive approach is to focus on mechanisms rather than specific risk factors,
where mechanisms relate to more general and plausible models of goal-directed human action (e.g. Goldthorpe 2016; a more extended discussion of mechanisms and explanation in the social sciences is provided in sections 3.2.2 and Appendix A).

Before moving on to discuss the mechanisms behind health inequalities, it should be stressed that the explanatory models discussed here primarily have been developed with inequalities between socioeconomic groups in mind, not inequalities based on e.g. employment status or gender. However, I argue that it is nevertheless reasonable to take these models as a point of departure for this thesis. First, this is the domain of health inequality research where the theoretical development regarding mechanisms is most advanced and mature. Second, the direct, particular mechanisms are in any case described in the included papers; the task of this kappa is to lift these particular mechanisms to a higher level of abstraction. Third, and in relation to this, the resource-perspective employed in this thesis (see below), while derived from attempts to explain health inequalities between socioeconomic groups, can be productively employed to inequalities based on gender, age or labour market status as well. It should also be highlighted that the explanatory models discussed below primarily have been developed in relation to a stricter definition of health (not including subjective wellbeing), but they can nonetheless be applied for the aims of this thesis.

Explanatory models of health inequalities are typically divided into (1) behavioral or cultural, (2) (neo-)materialistic, (3) psychosocial and (4) selection based theories (Bartley 2004; Mackenbach 2012; Bambra 2012). Of these the first three fall under the “social causation” umbrella, while the fourth is the reverse of these three and is centered around “social selection” (Solar and Irwin 2010; see also Diez Roux 2012). Theories of social causation maintain that it is social positions that determine health, such that social inequalities in living conditions and in the distribution of various social determinants of health generate a social gradient in health. Theories of social selection reverse the arrow of causality, and maintain that it is health that “causes” social positions, since individuals with poor health, or personal characteristics that increase the risk of experiencing poor health, tend to end up in (are selected into) lower social positions. This section is focused on “social causation” type of theories, but the reader should bear the alternative selection-based theories in mind. The reason for this focus is that social causation is a pre-requisite for social policies to have any causal, moderating impact on health and thereby on health inequalities. Social selection, on the other hand, would if it was the predominant mechanism imply that policies at most could aim to rearrange individuals in the social structure on the basis of their health status. Moreover, studies show that social selection, while undoubtedly important, can at most account for a part of the association between social position and health, but that much of the relationship is no doubt causal, going from social position to
health (Cutler and Lleras-Muney 2008; Mackenbach 2006; 2012; Kröger et al. 2015; Heckman et al. 2018). This causal relationship (“social causation”) is then, as stated, explained by behavioral/cultural, material or psychosocial factors.

3.2.1 Behavioral, material and psychosocial explanations

The first explanatory model is typically called cultural and/or behavioral (Bambra 2011; Bartley 2004), although it is also sometimes related to various aspects of lifestyles (Mackenbach 2006). It is arguably not a coherent theory, based on a distinct conception of human (inter)action, but rather an observation that a range of behaviors hazardous for health tend to cluster in certain social groups. There is in many cases an empirically established link between health-related behaviors – smoking, alcohol consumption, physical exercise, obesity – and social positions (Cutler and Lleras-Muney 2010). People in higher social positions typically smoke less, eat better, exercise more and the like, and these social differences in behaviors in turn contribute to social differences in health. Another way to express this is that social differences in health-damaging behaviors account for part, though not all, of the association between social position and health, at least physical health in a more narrowly defined sense (Marmot et al. 2008; Stringhini et al. 2011; Pampel et al. 2010). In classical sociological parlance, the behavioral or cultural model is intimately linked to the cultural dimension of Weber’s theory of social stratification, that is, to status groups and the tendency of delimited social groups (Gemeinschaften) to develop a specific style of life (Weber [1922] 1964).

The second, neo-materialistic, explanatory model states, basically, that high social positions, in line with most theories of stratification, are related to more material resources, most notably income (Bambra 2011; Kawachi et al. 2002; Solar and Irwin 2010; Schnittker 2004). Money in itself, of course, does not yield health benefits, but in a capitalist society, money, being the most liquid of all resources, can buy its owner wellbeing and a healthy life (Dahl and van der Wel 2013). Having money allows individuals to avoid hazardous exposures, such as pollutants, while simultaneously buying good food, high quality health care and housing, and pursue high status consumption (Bartley 2004). Money also buys intangible advantages, and economic security protects against stress and anxiety, while occupying low social positions are associated with more stressful living conditions (Mullainathan and Shafir 2013). In addition to income, materialist explanations also stress work and differential work conditions as a material cause of health inequalities: low social positions are associated with poor working conditions in terms of e.g. noise, accident risks, stress, autonomy and control. The materialistic model is intimately linked to the economic dimension of Weber’s theory of social stratification, that is, to class (Weber [1922] 1964).
The basic notion of the third explanatory model, the psychosocial model, is that a high social position is associated with psychological health-benefits that arise relationally, from the social position itself. Being relatively disadvantaged, in any kind of social relation, is damaging to health over and above whatever lack of material benefits that might be attached to this position (Marmot 2004; Payne 2017; Pickett and Wilkinson 2015; Schnittker 2004). Central to this model is the concept of social status, or prestige: man is a social animal, and is dependent on her social relations with others for her identity and self-esteem. The relative position of an individual, that is, her position in a web of mutual relations, determines her social status through processes of social comparison. Having a low social status in itself, through feelings of social inferiority, causes stress, which have short term negative effects on mental health, and in the long run causes poor physical health as well (Pickett and Wilkinson 2015). More encompassing psychosocial approaches add – in addition to the strict relational benefits of high social positions – psychosocial benefits located in the individuals themselves or in their networks to the model. These additional psychosocial benefits include for instance greater coping skills and social support (Kawachi et al. 2002; Solar and Irwin 2010). The psychosocial model is linked to the status dimension of Weber’s theory of social stratification, that is, to prestige or honor (Weber [1922] 1964).

These three explanatory models are sometimes positioned as competing, but they are not mutually exclusive (Fritzell et al. 2007). What is more, the behavioral model is, I would argue, not an independent explanatory model in the sense of the other two. It is, as mentioned, rather a collection of behavioral risk factors (proximate causes) that differ between social groups, but it does not explain why some hazardous behaviors are more common in some social groups than in others. In other words, the behavioral-model can give a statistical explanation of health inequalities, in the sense of statistically accounting for (part of) the association between social position and health, but it cannot provide a causal explanation in terms of mechanisms linking the two. A causal explanation would need to account for why behavioral risk factors cluster in lower social positions (see House et al. 1994; Pampel et al. 2010). This – the need to provide credible causal explanations – brings us to a second type of approach to health inequality.

### 3.2.2 Resource-based explanations

This second approach, with a more distinct sociological accent, provides explanations of health inequalities at a higher level of abstraction. This is done by means of a multidimensional conception of resources, where resources can be defined as material, embodied or social elements or phenomena that enable agents to act and reach goals, and that are in one way or another modifiable (and possible to convert into other forms of resources). Resources are thus something
that can be generated, acquired (or lost), and directly or indirectly distributed. Since resources can in principle be both material or psychosocial in nature, the resource approach to health inequality to an extent manage to encompass both the material and psychosocial models, although the emphasis on relative status and status anxiety at the center of the more distinctive psychosocial approaches (Pickett and Wilkinson 2015) falls outside of the emphasis on action intrinsic to resource-based approaches (see below). I will return to the concept of resources shortly.

Two strands of research have independently of each other taken this resource-based direction. The first is the theory of fundamental causes developed by Link and Phelan (Link and Phelan 1995; Phelan et al. 2010). The theory of fundamental causes takes as point of departure the distinction between basic and superficial causes (“symptoms”) coined by Lieberson (1985). Social position is a fundamental cause (basic cause in Lieberson’s theory) of health since social positions are related to (or have attached to them) various flexible resources that can be deployed to avoid risk factors and adopt health-beneficial strategies. The key concept here is flexible resources: “It is their capacity to be used flexibly by individuals and groups that places resources of knowledge, money, power, prestige, and beneficial social connections at the center of fundamental cause theory. Their flexible use tells us why SES [socioeconomic status] gradients tend to reproduce themselves over time” (Phelan et al. 2010: 29). Flexibility here implies both that resources are multidimensional (material, embodied and social) and that they can be deployed, or utilized, in a wide range of situations in life. Since the resources attached to social positions are flexible, they can be used to avoid health risks associated with behaviors such as obesity (through knowledge), material factors such as bad housing (through cash incomes), and some psychosocial factors such as stress (through social resources, for instance power). Even if specific risk factors differ between various negative health outcomes, possession of flexible resources will allow the owner of these resources to avoid many of these risks. Note the emphasis on the purposive action of individuals in this model: it is the active utilization of resources that is in focus. Social position is a fundamental cause because “the health effects of causes of this sort cannot be eliminated by addressing the mechanisms that appear to link them to disease” (Link and Phelan 1995: 86).

The second strand of research to have developed and applied a multidimensional conception of resources for explaining health inequalities is research inspired by the Scandinavian or Swedish tradition of welfare state research (Johansson 1970; Fritzell et al. 2007; Erikson 2003; Lundberg et al. 2015). The basic building block of this approach is Richard Titmuss’ definition of welfare as “command over material and non-material resources” (Titmuss 1974: 26), a definition containing two elements crucial to the Scandinavian approach to welfare research. First,
resources are multidimensional (material or “non-material”) and can range from money to knowledge to social relations\(^6\). Second, the word “command” implies that it is the opportunity to actively make use of and deploy resources that is central. The amount of, and degree of control over, multidimensional resources is linked to social positions and thus not equally distributed in society. Social inequalities in resources are then translated into inequalities in various aspects of health, through different mechanisms related to the use of resources (knowledge, money, social networks etcetera) (Fritzell et al. 2007).

As we can see, these two approaches share many commonalities regarding how resources are conceptualized (Fritzell et al. 2007). To an extent, they both manage to bridge the distinction between material and psychosocial factors (discussed previously) by explaining inequalities through a common concept of multidimensional or flexible resources\(^7\). This conceptualization is analytically parsimonious and provides high explanatory leverage. Both approaches are also able to avoid the danger of “risk factor epidemiology” by assembling highly disparate risk factors, on various levels, into one concept, and providing a plausible causal link through which inequalities in these risk factors flow from social positions. And, related to this, the two approaches have strong social scientific explanatory value in that they are both “action-based” (see Appendix A). The causal mechanism that is proposed as explaining health inequalities – use/command of resources, the distribution of which is linked to social positions – is easily aligned with a plausible conception of goal-directed human action and interaction (cf. Diez Roux 2012; Schnittker 2004). Assuming that health and wellbeing is considered a desirable goal by most individuals – a reasonable assumption; Cutler and Lleras-Muney (2008) write of a “universal demand” for health – the explanation is straightforwardly compatible with rational choice and similar theories, and thus, to paraphrase Raymond Boudon, self-contained as an explanation (Boudon 2003; cf. Coleman 1990). In other words, if one accepts that reasonably rational, goal-directed action is its own explanation, and thus in no need of further justification, the approach suggested by fundamental cause theory and the Scandinavian approach to welfare research in principle contain few, or at least less opaque, “black boxes” (Boudon 2003).

---

\(^6\) “förfogande över resurser i pengar, ägodelar, kunskaper, psykisk och fysisk energi, sociala relationer, säkerhet m. m. med vars hjälp individen kan kontrollera och medvetet styra sitt liv” (Johansson 1970, s. 25).

\(^7\) Note, again, that this “bridging” only applies to the kinds of psychosocial factors that can meaningfully be considered to be resources according to the definition given here. This would include for instance social relations (connections), but not the status dynamic per se that is at the center for some versions of the psychosocial model (e.g. Picket and Wilkinson 2015).
3.2.3 Conceptualizing resources

A limitation of the resource-approach is that the precise meaning of the central concept – “resources” – is often left unspecified. Different kinds of resources, as well as their properties, are not formally differentiated, which implies that the kinds of actions made possible by the resources, as well as the kinds of outcomes resulting from these actions, are not specified either. The unifying characteristic of resources in both versions is that they can be utilized somehow by the individual who is in control of them. This utilization-criterion provides a point of departure for developing a more theoretically rooted and explicit definition of resources. In doing so, I will primarily draw on James Coleman (especially Coleman 1990; also Coleman 1986; 1988). Coleman’s conceptualization of resources, and of forms of capital, is firmly based in a model of purposive action and social interaction, making it congenial to the sort of theorizing from which the resource approach to health inequality emanate.

Coleman sometimes uses the terms “resources” and “capital” interchangeably, but provides a more precise definition of the latter (as a means of action), while the definition of resources in principal can encompass both means and ends.\(^8\) “Capital” is also given more precise meanings in the sense that specific kinds of capital are specified (e.g. social capital). Capital, in the abstract, can be defined as that which “[en]able [persons] to act” in certain ways. All forms capital are defined by their “productive” elements, by ”making possible the achievement of certain ends that in its absence would not be possible” (Coleman 1990: 304; 1988: 98). Capital, in short, is not a specific type of thing, but is “defined by its function” (functional from the perspective of the actor, that is, by enabling them to reach goals) (Coleman 1988: 98). This is consistent with the resource-approach to health inequality, but yet somewhat indistinct. The value of Coleman’s conception lies in the distinction between physical (material), human and social capital, and the characteristics of these three. Physical capital incorporates all material tools used by actors, as well as financial means (Coleman 1988). Human capital is all the \textit{changeable} features of persons that provide “skills and capabilities” which in turn facilitate action (Coleman 1990: 304). Examples are knowledge or bodily function, both of which are modifiable and facilitate action. Social capital is situated in “the structure of relations between actors and among actors” (1988: 98), and is defined as all aspects of these relations that facilitate action. Social capital can be of two kinds: the relations themselves (networks and connections), and the social \textit{norms} – regarding trust, expectations, obligations and reciprocity – that enable these relations to exist. Note also that since capital is defined by its function for the actor, most concrete forms of capital (for instance, an intimate

\(^8\) Resources are “things over which [actors] have control and in which they have some interest” (Coleman 1990: 28).
social relation) can be both a means to an end (a resource), or an end in itself, depending on the situation.

Thus, common to all forms of capital is that they (1) are defined by their action-facilitating function, and (2) somehow changeable or modifiable, and thereby possible to either exchange directly or to be used in exchange relations (i.e. converted into other forms of resources). To this should be added that function is specific to types of action, and certain types of capital are only productive for specific activities. The differences between the three forms of capital have to do with where they are situated or contained, and with their properties. I will, partly drawing on Coleman (cf. Coleman 1990: 34) distinguish them based on whether they are internal or external to the persons possessing or utilizing them; whether they are tangible or intangible; whether they are divisible (i.e. can be divided and distributed); whether they are alienable (transferable to another person); and whether they are flexible or liquid (can easily be transformed into another form of capital/resource). Physical capital is external to persons, typically tangible, easily divisible and alienable, and flexible/liquid. Human capital is internal to persons, partly tangible (embodied), typically indivisible and inalienable, and less flexible/liquid. Social capital is external to persons, intangible, indivisible and mostly inalienable, and less flexible/liquid. These properties, in turn, are decisive for if and how they can be allocated by social policies.

The purpose with deriving this theoretically informed definition of resources is to structure the argument regarding vulnerability, social policy, and the specific forms of resources involved in this thesis. I will therefore not here discuss how different forms of capital relate to various aspects of health, since that is already partly covered by the discussion regarding the resource-approach to health. Before moving on, it should also be clarified that Coleman, as evident, talks about capital, but henceforth the terms material resources (“physical capital”), embodied resources (“human capital”), and social resources (“social capital”), will be used so as to be in line with the resource-approach to health inequality.

3.3 The micro-level: Social stratification, social positions and vulnerability

3.3.1. Social positions
Social inequalities in health have so far been discussed without a proper definition of what “social inequality” means. A clear and theoretically founded definition of what one wishes to measure is necessary before selecting specific indicators of the focal variables. In this thesis, I have so far strived to consistently use the term social position – rather than education, income, gender or any other characteristic relevant for social stratification – when referring to the social
inequality dimension in the concept “(social) health inequalities”. This is because social position is an analytically more flexible and abstract concept than for instance education or employment. Due to its flexibility, it can easily and transparently be aligned with the other central dimensions of this thesis: health and social policy (this alignment is made in section 3.5). Social position, like resources, has the benefit of being a parsimonious concept, in the sense of having high leverage and being applicable to various particular contexts.

Social positions are derived from social structures; indeed, in the words of Marx (1859/1993: 265) “Society does not consist of individuals, but expresses the sum of interrelations, the relations within which these individuals stand”. The structure (“society”) is prior to the component positions, and if the social structure is stratified (as all known societies are), social positions will be hierarchically ordered as well. A clear and economic definition of stratified social structures is given by Grusky (2001: 3): “The key components of such systems are (1) the institutional processes that define certain types of goods as valuable and desirable, (2) the rules of allocation that distribute these goods across various positions in the division of labor (e.g., doctor, farmer, “housewife”), and (3) the mobility mechanisms that link individuals to positions and thereby generate unequal control over valued resources.” A social position is thus a position, derived from the social division of labour, to which control over certain resources (“goods defined valuable and desirable”) are attached. Two aspects of this definition are of importance for the conceptual framework employed in this thesis. Firstly, positions are defined in relation to the social division of labour, that is, not equivalent to formal wage labour and occupations, although labour markets are undoubtedly a key element of stratification in capitalist societies. Secondly, positions have resources attached to them, and resources are not only or primarily inherent in individuals themselves (cf. Coleman 1990). In other words, social positions are distinct from the individuals occupying these positions (Sörensen 2001).

3.3.2. Vulnerable groups and dependence

Due to its roots in the social division of labour, social position is sometimes, as in its Marxist variants, equated with social class and occupation. The approach taken in this thesis is more Weberian, and thereby more multidimensional, in its outlook. Weber never developed an explicit theory of stratification (Brennan 1997), nor of vulnerability, but the way he approached social class as an “empty” social position provides a sound basis from which to relate social positions to social groups. While this thesis is not about social class, the Weberian approach to class can be transposed to the conceptualization of vulnerable groups.
A social position can never be directly observed, nor can a social position have a health status. As stated, social positions are distinct from the individuals occupying the positions, but it is individuals that have a health status and are investigated empirically in this thesis. Social positions are only concepts that we can use for thinking about causal processes. What is needed is a translation of social positions into concrete social groups, and thereby a basis for forming and operationalizing the concept “vulnerable group”. For this purpose, a key benefit with the Weberian concept of class is that it, as opposed to e.g. status, is purely nominal: “the concept of class and class situation as such designate only the fact of identity or similarity in the typical situation in which an individual and many others find their interests defined” (Weber 1922/2008: 143). There is no need for the individuals belonging to a class (or in the case of this thesis, a vulnerable group) to find the concept to be meaningful for them. What is needed is that they share certain resources (“provision with goods”), certain life circumstances (“external conditions of life”), certain types of plausible actions (“interests”), and thereby specific life chances (Weber 1922/2008: 133; 142). All individuals who, by virtue of sharing a certain social position (“class situation” in Weberian terms; “vulnerability”, or lack thereof, in this thesis), also share a similar situation with regard to resources and life chances.

In this sense, a social group is a cluster of comparable social positions with similar resources and life chances. What, then, is a vulnerable social group? Vulnerable social groups are, unlike social positions, not a well-established scientific term. Vulnerability is often related to risks, to probabilities of certain predefined adverse outcomes (Alwang et al. 2001), and has a connotation of force majeure, of external events that “hits” the individual (such as macroeconomic shocks). However, in order to be in line with the overall theoretical ambition of this thesis, I rather want to emphasize the social process inherent in vulnerability, and put the terminal outcome (such as a certain health condition) in the background. In this thesis, vulnerability, and consequently vulnerable groups, is therefore defined on the basis of (though not identical to) how social position is conceptualized, that is, in relation to resources and the actions made possible by these. I propose a definition of vulnerability as when the range of actions made possible by the set of resources that an individual can generate by herself are so constrained that she cannot actively manage her own life.

This definition contains three elements. (1) By “generate by herself” I mean that the individual generates resources (of various kinds) independently by performing work (in the household or on the market), or that resources are allocated to him/her on the basis of social position, ownership or social relations (cf. Saltkjel 2018). (2) By “resources” I mean resources in the sense defined previously – as anything that enables agents to act and reach goals. These resources can be generated in households as well as on the market, and be
material, embodied or social. (3) “Actively manage her own life” is obviously context-bound, and difficult to delineate. The core idea is that individuals should be given the opportunity to be able to pursue fundamental goals that they themselves find meaningful. This means that vulnerability is in part relative to some form of social, contextual standard, but only in an indirect way. Most approaches to vulnerability contain some form of socially defined minimum targets for specific outcomes, such as a given poverty level (Alwang et al. 2001; cf. Smith 1776/1976: 869-870), but from the perspective of the definition proposed here, this standard must not be pre-defined and quantified. Suffice is to assume that humans are social animals, sensitive to evaluation by, but also inspiration from, their peers, and that the preferences and goals of individuals are therefore shaped by prevailing norms in the society in which they live. If, then, individuals strive to attain goals that are fundamentally shaped by their social context, the actions made possible by a given resource set must typically be enough to meet certain requirements taken for granted (i.e. being the norm) in that specific context.

What this definition of vulnerability more than anything entails is dependence: since vulnerable groups cannot, or find it difficult to, actively manage their lives with the resources they can generate independently, they are dependent either on the government, or on philanthropy, in order not to fall below the threshold of acceptability. A core characteristic of vulnerable groups is thus that they are potentially dependent on social policies for their resources and life chances (Saltkjel 2018). Vulnerability is defined in relation to resources, and the logic of social policies is to distribute resources (see section 3.4).

How does this theoretical definition of social position and vulnerability, and consequently vulnerable social positions, relate to the empirical groups or categories studied in this thesis? If vulnerability is attached to resource endowments and possibilities to generate resources, we must have an outline regarding where – in what arenas and social spheres – the different forms of resources are generated and can be utilized.

In capitalist societies, material resources are predominantly generated in the labour market or through property (Weber 1922/2008). Embodied and social resources can also be generated in the labour market, through work experience and professional networks, but are predominantly generated outside of markets, especially in households, through nurture and care, and through the norms that structure intimate relationships (Coleman 1990). However, specific resources can also be accessed through exchange, by converting one type of resource into another. Material resources are the most flexible and liquid, and are thus most easily converted into, or can at least be used to access, other types of resources (e.g. by purchasing education or care). Embodied and social resources are in
general inalienable and less flexible, and neither is directly exchangeable in markets, but both can to an extent be converted into material resources in the labour market, and to one another within households (through for instance care obligations).

The empirical vulnerable groups studied in the thesis are unemployed young adults, young adults with working class background, and older persons (past retirement age) with working class occupations or female gender. Two definitional aspects are of relevance when relating these focal groups to the model of vulnerable social positions outlined above: relevance of the groups with regard to vulnerability (and resource endowments), and with regard to social positions. First, vulnerability, according to the resource-based definition employed here, is evident with regard to both unemployment and old age: unemployed individuals are by definition unable to support themselves through paid work, and older persons beyond retirement age are excluded from paid work due to legally sanctioned statutory retirement ages and physical frailty. Neither of these groups are thus able to independently generate sufficient material resources in the labour market. Among older persons, the working class and women are groups with particularly vulnerable positions with regard to material resources. Pensions are in all countries to some extent income-related, to the disadvantage of persons with low wages (working class, women) and with a high degree of unpaid work (women) (Bettio et al. 2015; EIGE 2015). Unemployment and old age also tend to involve a lack of embodied and social resources. Unemployment entails, among other things, constraints on social participation (Jahoda 1982), and the loss of work experience can lead to a deterioration of embodied resources such as skills. Old age entails a deterioration of embodied resources in the forms of health and bodily function, and also tends to entail more limited social resources due to limited access to valuable social relations, which in turn leads to frailty-induced dependence on formal care (Rodrigues et al. 2012). Women are especially vulnerable in this regard, as gendered norms both increase their informal care work burden, and limits their access to informal care as care obligations of male partners are less demanding. Young adults with working class background can be seen as vulnerable in the sense that they have higher risks of experiencing lack of

---

9 An important difference between embodied and social resources here is that since embodied resources are internal to persons, the only actor who can utilize them directly is the one who is in possession of them (Coleman 1990). However, embodied resources can be accessed indirectly by other actors, either through exchange or, prominently, through social relations. Access to embodied resources through social relations (including the norms regarding obligations inherent in social relations) is salient in the context of within-household interactions, especially care and care relations. Indeed, most forms of embodied resources cannot be adequately generated without the social resources (e.g. care) inherent in intimate relationships (Coleman 1990).
material resources because of weak labour market positions, in turn partly a consequence of lack of embodied resources in the form of skills, and social resources in the form of networks (Breen and Jonsson 2007; Blossfeld et al. 2016).

Whether these groups constitute, or can be derived from, distinct social positions is less straightforward. Social positions are, as stated, derived from the social division of labour, to which control over certain resources are attached (Grusky 2001). Social class (investigated in papers I and III) is the very ideal type of a social position, and is directly related to the division of labour as well as certain resources. Unemployment (the focus of paper IV) can also be regarded as a social position according to this definition, as it is directly derived from the social division of labour, and clearly has a certain set of resources (or lack of resources) attached to it. Age and gender do not constitute formal positions in the occupational structure, and are sometimes considered ascriptive characteristics, rather than social positions per se (Lieberson 2001). However, if social positions are derived from the social, not merely market, division of labour, things look different. The social division of labour is clearly structured by age: childhood and youth are periods when individuals are prepared for the labour market, while old age due to physical frailty makes both paid and unpaid work demanding. Socially, the division of labour is also gendered, with women traditionally performing socially necessary but typically not marketized reproductive or care work (Rieker et al. 2010; Korpi 2000). There is, to put it differently, a division of labour also within households (families). In sum, common to all of the groups studied in this thesis is that they share a set of circumstances that puts them in potential dependence on social polices for their life chances and for access to essential resources.

3.4 The macro-level: The welfare state and social policy
The theoretical and empirical literature on welfare states or social policy (the two terms are used interchangeably in this thesis) is immense, and each domain of policy have its own conceptual apparatus and traditions. The task here is to develop a conception of social policy that can be used to theoretically align social policies (the macro-level) with vulnerable groups (the micro-level). The principal concept for the alignment of these will again be resources: material, embodied or social elements or phenomena that enable actors to act, and that are in one way or another modifiable and therefore possible to allocate through institutions and policies.

3.4.1 A bird’s eye view on the welfare state
The core idea of the welfare state is that the distribution of resources that results from pure, unfettered market logic is not justified (Polanyi 2002/1944; Streeck
The welfare state pits two distributive logics – that of the market, and that of democracy, or the primacy of politics – against each other. The role of the welfare state is then to “redistribute command over material and intangible resources from the poor to the rich [sic!]; from one ethnic group to another ethnic group; from working life to old age within income groups and social classes ... and in other ways.” (Titmuss 1974). An updated but similar definition is given by Bonoli (2008): “The welfare state is understood as actions that make use of political power to modify the distribution of goods and services that result from market exchanges”. To the latter definition I would add that social policies intervene in the generation of resources in households, and in wider social relations, as well (Esping-Andersen 1999).

The way that welfare state allocates resources can be seen from two perspectives. The standard view especially in economics is that the resource allocation resulting from an unfettered market and non-intervention into households is primary, and that the welfare state enters the stage ex post, when the primary allocation is regarded as undesirable. This sequential ordering is evident from the use of the prefix “re” in re-distribution. From this perspective, the market and households/families are naturalized, as is the allocation of resources resulting from non-intervention into these spheres. An alternative view stresses that there can be no “pure” or “natural” allocation, not in markets nor within households, and hence no primary allocation that the welfare state can correct ex post. Household and market relations, not least labour market relations, are always already structured by politics and power. From this perspective, the welfare state is a “system of stratification” in its own right (Esping-Andersen 1990; see also Polanyi 2002/1944; Streeck 2016; Jacobs 2017; Korpi 1983). This means that politics is put at center stage, and that the functionalistic tendencies inherent in the first perspective – i.e. resources are assumed to be allocated according to equity considerations, not power relations and struggle – is challenged.10

The second perspective is more dynamic, as it recognizes the interplay between politics and markets or households, but it is simultaneously more complex, and, by incorporating politics, it partly pushes the analysis beyond the remit of social work and sociology towards political economy. In the following, the first

10 These two conflicting perspectives have deep historical roots, and have long been central to political philosophy, political economy and theories of justice. Prominent advocates of the former perspective are Thomas Hobbes and social contracts philosophers, as well as Adam Smith and economic theories of how inequality follows spontaneously from man’s “natural” “propensity to truck, barter, and exchange” (Smith 1976/1776: 17). A prominent proponent of the second perspective is Karl Marx, especially in his critique of “primitive accumulation”. From a Marxist perspective, market relations and distributions are the result of centuries of “conquest, enslavement, robbery, murder, [and ] force”, and theories of “natural” distribution are mere “legend” and “insipid childishness... preached to us in the defense of property” (Marx 1867/1976: 873-874).
perspective will dominate, not because it is considered more “true”, but because it is more analytically parsimonious and coherent, and more in line with the aim of the thesis as well as with the types of empirical models estimated in the papers. Analyzing the emergence or construction of vulnerable groups in the first place would mean quite a different thesis, with different empirical material.

3.4.2 The welfare state and resources
If a modification of the resource allocation through political means is the conceptual core of the welfare state, what then are its empirical activities? On an abstract level, welfare state or social policies can be divided into financial transfers and social services (Esping-Andersen and Myles 2009; Lundberg et al. 2015). Financial transfers include all cash benefits – such as means-tested allowances or social insurance payments – paid from state or municipal bodies to individuals or households. The lion’s share of transfer expenditures consists of (public) pensions, unemployment benefits, sickness insurance, and parental leave and family benefits. Occasionally tax deductions are also viewed as a functional equivalent to social transfers (Bonoli 2008). Social services include all public production of welfare resources “in kind”, direct (through public provision) as well as indirect (through private provision but public funding). The bulk of services are devoted to education, care (elderly care and childcare), health care and community services (OECD 2011). The task here is to outline the types of resources that are allocated, or rather the types of actions that are facilitated, by transfers and services, respectively.

Transfers, and taxes, primarily allocate material resources in the form of cash. Cash is the prime example of a material resource, and possesses all the properties typical of this type of resource. It is clearly external to persons, easily divisible and alienable, and very flexible or liquid in contemporary capitalist societies. These properties have implications for the types of allocation that the welfare state can perform. The fact that cash is external to persons, and divisible and alienable, means that cash can easily be redistributed, that is, the state can take cash from one person (through taxes), and give it to another. In fact, since virtually all public income – that is, all public resources that finance the welfare state – are collected through taxation, cash occupies a singular position among welfare state resources. Since cash is flexible, it is also the preferred kind of resource used for allocation when the need motivating the distribution (the welfare state effort) is not tied to a specific type of consumption, but instead to general income maintenance. Since most people in contemporary capitalist societies generate most of their material resources in the form of cash in the labour market (through employment), the types of needs that cash incomes meet are individual’s need for flexible (material) resources, that they can utilize in a variety of settings. Public allocation according to labour market status, in the
form of income replacement, is consequently best accomplished through distribution of these kinds of flexible resources, that is, through cash transfers. In other words, transfers are used to allocate material resources to individuals who are not able to generate these resources themselves in the labour market. By structuring incentives for paid and unpaid work, the tax and transfer system can also intervene directly in the generation of material resources within households (Korpi 2000; Esping-Andersen and Myles 2009).  

Welfare state services primarily allocate embodied, but also to an extent social, resources, and do so “in kind”, not as monetary benefits. From the perspective employed in this thesis (e.g. Coleman 1990), embodied and social resources share some important properties. Both generally exhibit low degrees of divisibility and alienability, and are mostly rather inflexible and illiquid. Low divisibility and alienability implies that the state cannot take embodied or social resources – for instance certain skills – from one individual or group and give it to another. Low flexibility and liquidity means that when these resources are allocated, they are most properly allocated in kind, directly in their original form (as embodied or social resources), since the conversion of other forms of resources into embodied or social resources is imperfect.

If cash transfers allocate alienable and flexible resources on the basis of labour market status in order to satisfy the need for flexible resources, the types of needs that social services are designed to meet are often what is regarded as specific and basic human needs (such as education and bodily function), or in some cases activities with important externalities (knowledge). Skills are produced by the education system12, while bodily function is “produced” by both health care and elderly care. Since the services are established precisely to meet certain pre-defined and specific needs, the resources that are produced by these services are less flexible than cash, and therefore distributed in kind. And since the resources are tailored to specific needs, but largely paid for through general taxation, the result is an indirect redistribution from the less needy to the more needy.

---

11 Note that in this last form of allocation – intervening in households – the welfare states shapes the “primary” stratification (cf. section 3.4.1).

12 In both paper III and paper IV, much focus is on “educational opportunities” or “access opportunities”. This is clearly not an embodied resource per se such as a concrete skill, but rather a matter of how these skills can be generated and accessed. In any case, “educational opportunities” directly reflect how actors are “enabled to act”, and should therefore be regarded as a resource according to the definition adopted in the thesis.
Vulnerable groups, by definition, belong to the more needy (more on this in section 4.5).

### 3.4.3 The social logic of distribution

In sum, material resources can be directly redistributed (taken from one person and given to another), and this is mainly performed through social transfers. Embodied and social resources cannot be directly redistributed, but they can be produced and then allocated on a basis of need, and if this production is financed through taxes, an indirect redistribution takes place. If this is the logic of welfare state redistribution, then what is the empirical substance? That is, between which social positions and social groups do resources flow?

As evident from the quote by Titmuss above, distribution can, in principle, occur between several types of groups (“from poor to the rich; from one ethnic group to another ethnic group ... and in other ways”). The actual distributive profile is an empirical question. Material resources are, as stated, distributed through transfers and on the basis of labour market status. The most salient social characteristic determining labour market status is age: much of social transfers are devoted to redistribution from the working age population to younger or older age groups. This is a form of horizontal distribution, in which resources are distributed over the life course (Barr 1998). Transfers are also directed towards individuals in working age but who have difficulties generating income through paid work, such as the unemployed (unemployment benefits) or incapacitated (sickness benefits). Both of these forms of distribution are intended to protect against social risks, such as old age, illness or unemployment, and allocate resources to groups with vulnerable labour market positions. Part of this distribution also takes place through the tax system: if taxes are progressive, but the benefits paid for through the taxes are distributed according to vulnerable labour market positions, this will result in a vertical distribution across income groups. Since access to, or position in, the labour market is clearly contingent on social class and gender, distribution according to labour market position tends to have consequences for social and gender differences as well (Korpi 2000).

Embodied and social resources are primarily distributed through services and on the basis of specific needs, typically needs defined as basic through a political process. These needs are related to demographic characteristics, particularly age; judged by the level of expenditures, the most prioritized needs are those related to skills or knowledge, and health or bodily function, both of which are related to age (OECD 2011). These are also the needs generally judged most “deserving” by public opinion (van Oorschot 2006). The bulk of services directed towards children, adolescents and youth are of the kind that generate embodied resources in the form of knowledge, skills and social functioning, and are mainly provided
through the education system, including childcare. The bulk of services directed towards older persons are of the kind that generate embodied resources in the form of health and bodily function, and are mainly provided by elderly care and the health care system. Elderly care is explicitly directed towards older persons, while in the case of health care this distributive profile is more indirect and due to greater care needs in old age (OECD 2015). Care policies also “distribute” social resources by affecting norms regarding who should provide care, and whether this should be provided within or outside households, thus also structuring norms regarding paid and unpaid work (Coleman 1990). Since these norms are highly gendered, this can influence the distribution of resources between men and women.

Thus, similar to transfers, much of the distribution of embodied and social resources are directed towards the young and old, while the working age population receive less. Moreover, since services are financed mainly by (progressive) taxation, largely on the working age population, there is an indirect redistribution through the tax system, both across age groups and from groups with higher incomes to those with lower (OECD 2011; Aaberge et al. 2010; 2018; see section 4.5.2).

In sum, the three main axes of redistribution are age, labour market status, and income (Esping-Andersen and Myles 2009; Barr 1998). These three axes of distribution cover the vulnerable groups studied in this thesis rather well: the young and old benefit from horizontal distribution over the life-course, unemployed from protection against social risks, and lower classes from vertical redistribution according to income. Moreover, given the social division of labour discussed previously, redistribution by labour market status in practice often implies redistribution between men and women (cf. Korpi 2000; Esping-Andersen 2009), while of care policies influences the relative resources of men and women.

3.5 Aligning the micro- and macro-level: Social policies, vulnerable groups and health inequalities

We next turn to the alignment of the micro- and macro-level processes described so far. Since all building blocks – health and health inequality; social positions

---

13 Some distribution through public policies can no doubt be of other forms, and beneficial to more advantaged groups – examples are tax deductions or subsidies for goods and services mainly consumed by high-income households – but these are typically not included among social policies and social expenditure. Moreover, while on average most welfare states have progressive income taxation, consumption and capital taxes can be more regressive (Piketty and Saez 2007). Note also that welfare resources are not only allocated in proportion to “objective” need, but equally in proportion to political power. In this sense, the picture painted here is simplified.
and vulnerable groups; and social policies – are in place, what needs to be done is to link these together into conceptual model, with the purpose of the describing the hypothesized causal chains that leads from the structure of social policies to the size of health inequalities.

Due to the inherent complexity of the social world, it is always a challenge to strike a balance between explanatory efficacy and utility, on the one hand, and empirical realism, on the other. All scientific endeavor by necessity involve simplification of reality, but the level of simplification is a matter of negotiation. In this thesis, I will strive to keep the conceptual model as parsimonious as possible, for two reasons. First, the specific mechanisms linking each domain of policy to the health of each subgroup is extensively elaborated in the respective papers. The value added of the \( \text{kappa} \) is then to bind together the separate empirical studies on a more abstract level. Second, more complex models of these processes already exists, for example in the social determinants framework of WHO (CSDH 2008; see also Bronfenbrenner 1979). These models are, however, too all-embracing to be of much value in this context. The ambitious scope of these models risks making them difficult to apply in scientific practice, and their level of complexity risks making them more confusing than enlightening (cf. Diez Roux 2012).

![Conceptual model of the moderating role of social policies](image)

**Figure 1. Conceptual model of the moderating role of social policies**

The conceptual model, illustrated schematically in Figure 1, consists of three building blocks on the micro (individual) level, one building block on the macro (country) level, and three causal processes linking these building blocks to each
other. It should be highlighted that the model illustrates *hypothesized* causal processes; I do not lay claim to have empirically demonstrated definite causal relationships in this thesis (see section 7 and Appendix A for discussions of causality). The building blocks are depicted with squares, and the causal processes with arrows. The first arrow (A) shows how social positions determine the quantity and quality of resources. Arrow B shows how the quantity and quality of resources in turn determine the health and wellbeing of individuals, or perhaps rather, how resources can be used flexibly by individuals to promote their health. Arrow C shows how social policies in the form of transfers and services distribute resources to social positions (and the individuals occupying them), thereby modifying the link between social position and resources. The model is intentionally constructed so as to resemble how moderated mediation regression analysis is often depicted graphically (see e.g. Hayes 2013). From the perspective of a regression model, health/wellbeing is then the dependent variable, social position is the focal independent variable, resources are a set of mediating or intervening variables that “transmit” the effect of social position on health, and social policies is the moderating variable that moderates, or conditions, the effect of social position on resources, and thereby in extension on health/wellbeing. The reason for the intended resemblance is that I believe that conceptual models should be relevant for the empirical models that are in fact estimated. All statistical models are based on an implicit model of reality, and if the results (i.e. regression coefficients) are generated based on a certain regression model, but the explanation or interpretation of these results is based on a theoretical understanding that is largely detached from that model, it can be questioned to what extent the theoretically derived conclusions are in fact supported by the empirical results. In that case, the conceptual model, detached from the empirical one, can generate more confusion than clarity. Since all the empirical papers in this thesis build upon moderation analyses, and three out of four conduct some form of mediation analysis, a conceptual model of the sort depicted in Figure 1 is apposite.
4. Data and methods

4.1 Cross-country comparative research
The aim of the thesis is, as stated, to investigate the moderating role of social policies for the association between vulnerable social positions and health. The choice of data, variables and methodology must therefore be appropriate both with regard to the vulnerability and health nexus (health inequality), and with regard to social policy. This section describes the data that are used in the empirical papers, and the operationalization of the key variables. I begin with a discussion of the overall research design, the cross-country comparative method, after which the data, variables and analytical strategies are explained.

In the words of Lieberson (1985: 44), all social science “in one form or another is comparative research”. Thus, besides variation in individual social positions (see below), we need variation in social policies. Variation in policies can be either temporal (over time), spatial (over geographical units), or social (such that the policy only applies to a socially defined segment of the population). This study utilizes spatial variation, specifically, variation across countries. With the availability of comparable micro-data, cross-country studies have become an increasingly popular method to study how national policies shape individual outcomes. Roughly speaking, cross-country comparative research can be either of the “small-N” or the “large-N” kind, where N refers to the number of country units of observation. Small-N studies include a small number of countries, typically two or three, but at most a handful, and perform detailed analyses of each country. The countries are often selected on theoretical grounds, for example as being representative of ideal types. In quantitative research, this typically means that separate datasets are used, and separate models are estimated, in each country. Large-N studies, in contrast, include enough country units to model the countries, or their characteristics, as variables in one and the same empirical model, meaning that the proper names of countries are replaced by theoretically relevant variables (Przeworski and Teune 1970). In small-N studies, the comparison across countries is qualitative, while in large-N studies the comparison is quantitative. Large-N studies have traditionally been dominant in comparative health research (Bergqvist et al. 2013).

This thesis takes the large-N approach as point of departure, and the empirical papers include between 20 and 26 country units. Large-N designs have three major advantages. First, it is well suited to handle confounding. Since health is a multifactorial phenomena, with numerous causes also at the macro-level, we need many countries to allow us to rule out alternative explanations of country effects (ideally, however, many more than the 20-30 countries typical in cross-
country comparative datasets) (Lieberson 1991). Second, large-N studies can handle, or rather, is founded upon, probabilistic causality. For instance, if, in a small-N design, only two countries are compared, and one, say a social democratic welfare state, is found to have small health inequalities, while the other, say a liberal welfare state, is found to have large ones, then the logical inference from this comparison would be that social democratic welfare states have smaller inequalities than liberal welfare states. There is no scope within this research design to handle deviations or exceptions, and to conclude that social democratic welfare states have on average smaller inequalities, or lower the risk of having large inequalities. Yet, causality, at least as regards multifactorial phenomena in the social world, is typically of a probabilistic nature. A large-N study, on the other hand, is explicitly based on a probabilistic conception of causality (i.e. frequentist statistics), and directly estimates the uncertainty of average effects (King et al. 1994). Third, large-N studies, due to their larger samples, have a higher degree of generalizability, at least within certain boundaries (such as Europe in the case of this thesis) (King et al. 1994). A further potential advantage with large-N studies in comparative research is that it allows researchers to combine the rigor of frequentist statistics with the flexibility and complexity of case studies. Unlike with individual-level data, countries are not anonymized in comparative datasets, and the researcher has extensive historical and contextual information about each specific case, which can be used to enhance the interpretations of the findings (see Huber and Stevens 2001 for a large-scale application of this approach). However, due to space limitations, this approach is only used briefly in one of the included papers (paper 3).

On the other hand, all research designs have trade-offs (Przeworski and Teune 1970), and large-N studies lack “depth”, and cannot take into account all of the idiosyncrasies of the included countries. This can increase the risk of measurement bias, since nominal values of policies may take on different meaning in different country contexts, thereby undermining the validity of the findings. Moreover, large-N studies are less well suited for taking configurational effects (or multiple conjunctural causation) into account, that is, that several country characteristics together and through their interaction generate a certain outcome (although typological analysis, such as those based on welfare regimes, go some way in handling this issue) (Ragin 2014/1987). A further limitation of large-N studies, is the comparatively poor availability of high-quality, especially longitudinal, harmonized micro-data. An additional limitation of large-N comparative studies is discussed in section 4.6 due to its more technical nature.

4.2 Data
The thesis is a study in comparative health and social policy, and, since health is a characteristic of individuals, therefore requires data that are comparable at the
individual level. For large-scale comparisons this practically means that survey data is required (Beckfield et al. 2013). All four papers use individual-level data from the European Social Survey (ESS). ESS is a cross-sectional survey carried out every two years in practically all European Union countries, as well as in several non-EU countries. In total, more than 30 European countries have participated in at least one survey round since the first round in 2002. ESS is academically driven, with the purpose to investigate attitudes and behaviors among European populations, and to develop and spread higher standards in cross-country comparative research. The surveys consist of a core module that is repeated every survey round, and a number of rotating modules that cover specific topics. Data are collected through standardized face to face interviews, and participants are selected through random probability sampling of the population aged 15 or older in each country. All data collection is pre-harmonized, and pre-testing and rigorous translation procedures are employed to ensure comparability across countries. Target response rates are 70 % per country and survey round, and average actual response rates are around 60 %, although with a decreasing trend over time. Effective achieved sample sizes per country and survey round are at least 1 500 respondents, or 800 in countries with populations of less than 2 million (ESS 2012; Schnaudt et al. 2014).

For the purpose of this thesis, ESS data offer a number of advantages. First, the data are of high quality in terms of pre-harmonization across countries and the number of countries covered. The strict sampling procedures ensure generalizable estimates of individual level variables. With interviews conducted face-to-face, high internal response rates are ensured as well. Second, it is one of the broadest comparative surveys available in terms of themes covered, and includes several measures of health and wellbeing, which enable researchers to select health measures of specific relevance for the focal groups studied. Third, much of the previous comparative health literature, especially that with a social policy focus, has been based on ESS data (Bergqvist et al. 2013; Vößemer and Eunicke 2015). In this sense, the results of this thesis are made comparable to these previous studies. Fourth, large samples per country and survey round enable analysis of small subgroups, which is crucial given the thesis’ focus on social groups disaggregated by age, gender, class or employment status. Fifth, the comparatively large number of countries included is necessary for using regression based statistical techniques, such as the multilevel models applied in this thesis. State of the art simulation studies show that around 25 countries are required for reliable estimates of country-level effects in multilevel models, although more complex models, for instance including cross-level interactions or mediation analysis, might require more cases (Bryan and Jenkins 2015). Thus, the number of countries in the included papers should be regarded as being sufficient, and comparable to many other comparative studies, but still in the lower bound of adequacy.
4.3 Operationalizing health and wellbeing

Three measures of health and wellbeing are used in the empirical papers: self-rated general health, limiting long-standing illness, and global life satisfaction. The first two measures are used in papers I and II, with the 65-80 year old age group in focus, and the latter is used in papers III and IV, with the 18-29 year old age group in focus. The choice to use self-rated health and limiting long-standing illness for the older age group, and life satisfaction for the younger, is based on the consideration that physical health is a more salient issue for older persons, while mental health and psychological wellbeing is more salient among youth and young adults (Whiteford et al. 2015; Patton et al. 2009). With older age comes, inevitably, physical infirmity and higher morbidity, why measures that capture these dimensions are warranted. Younger persons are in general less afflicted by health problems related to physical infirmity, but psychological health and wellbeing is, at least relatively, more important.

Self-rated health is one of the most widely used health measures in comparative health research (Bergqvist et al. 2013; Voßemer and Eunicke 2015; Brennenstuhl et al. 2012; van der Wel et al. 2018), which implies that the results of this thesis are comparable to much of this previous literature. The use of this measure is due to its validity, as indicated by, among other things, its ability to predict mortality (Quesnel-Vallée 2007), correlation with objective health outcomes, and degree of cross-country comparability (Jürges et al. 2008; for sceptical views, see Sen 2002 and Barford et al. 2010). The question asked to respondents in ESS is “How is your health in general?”, with answers ranging from 1 (“Very good”) to 5 (“Very poor”). The subjective nature of the measure is both its main benefit and main drawback. A benefit as it captures “an individual’s synthesis of various objective and subjective information about health that integrates this information using individual weights and preferences” (Cleary 1997: 3), and a drawback since these individual preferences might reflect differences in expectations as well as “actual” or “true” health status (Quesnel-Vallée 2007).

Limiting long-standing illness is less often used in comparative health research, but is, in one form or another, well-established in gerontological research (Ayis 2003). It captures another, more practical dimension of health – how the health status directly affects the life of the respondent – and is of particular relevance from the perspective of care policies, as (elderly) care policies are typically aimed at facilitating a functioning everyday life for service users, not at curing disease. The validity of limiting long-standing illness as a measure of health is supported by its association with severe and objective chronic conditions (Manor 2001). The question asked to respondents is “Are you hampered in your daily activities in any way by any longstanding illness, or disability, infirmity or mental health
problem? If yes, is that a lot or to some extent?”, with possible answers being “No”, “Yes, to some extent”, and “Yes, a lot”.

Psychological wellbeing can be disaggregated into affective and evaluative or cognitive wellbeing. In empirical, survey-based research, the first dimension is typically measured by questions concerning happiness, while the latter is typically measured through items concerning overall satisfaction with life. The validity of satisfaction with life as a measure of wellbeing is supported by its ability to predict future outcomes, such as suicide, health and longevity, and to reflect changes in life circumstances, such as unemployment or separation (Diener et al. 2013). The question asked to respondents is “All things considered, how satisfied are you with your life as a whole nowadays?” with answers ranging from 0 (“Extremely dissatisfied”) to 10 (“Extremely satisfied”).

How, then, do these measures fit with the perspective on health and wellbeing given in section 3.1? Health was there discussed as an encompassing and multidimensional concept, including aspects of psychological wellbeing, and not necessarily based solely on medical conditions. Psychological wellbeing (or more specifically its cognitive/evaluative component) is obviously captured by life satisfaction, and multidimensionality is captured by using at least three different health measures (more than that if counting the sensitivity analyses), each covering a distinct dimension. While self-rated health in papers I and II was dichotomized so as to be consistent with previous studies, both self-rated health and life satisfaction can in principle be viewed as measuring a latent continuum; the view of the dichotomized measure of self-rated health would then be in line with the statistical view of binary outcome variables as “partially observed continuous latent variable(s)” (Breen et al. 2018: 41). From a conceptual point of view, limiting long-standing illness can be seen as both a binary condition and as a more gradual phenomena (a “latent variable”): one might not be either universally hampered or not, but experience different degrees of functional limitation in different kinds of activities. The measure in ESS nevertheless necessitates a binary analytical approach in papers I and II.

While using multiple measures is a strength from the perspective of a multidimensional conceptualization of health, it also has certain drawbacks. I have previously described why I think that each measure is of relevance for each particular paper, as well as why health can be related to a wider concept of wellbeing. However, if narrowness can become the Scylla of a focus on specific medical conditions, fuzziness and lack of coherence can be the Charybdis of multidimensionality. The three measures, while related both theoretically and empirically, capture different aspects of health, and these different aspects might to an extent be related to different underlying causal and temporal processes (Mackenbach et al. 2018). Life satisfaction captures individuals’ global
evaluations of their lives, and is thus a very encompassing measure, while limiting long-standing illness probably reflects more concrete physical health conditions. At least as regards more proximate determinants, the causal process in the case of life satisfaction is arguably more temporally direct but causally complex and multifactorial, while the equivalent process in the case of limiting long-standing illness might be more temporally protracted but causally distinct. Given the aim of this thesis, the crucial issue here is whether the focal independent variables – vulnerability and social policy – are differentially related to these health measures in a way that undermines the coherence of the thesis as a whole. My ambition with this kappa is to make the case that they are not, but readers should keep in mind that, given the health measures and their differences, the general conclusions regarding “health” that I draw in this thesis are motivated on theoretical grounds, while the empirical basis of the conclusions concerns more limited yet heterogeneous health outcomes.

All measures are, as stated, self-reported and subjective. This partly reflects theoretical considerations (see section 3.1), but it also reflects the poor availability of cross-country comparative objective health measures. Aggregated country data on e.g. mortality are plentiful, but since the focus of this thesis is on vulnerable social positions, individual health data are needed. In order to study health inequality, at least with regard to social vulnerability, survey data, which is inherently subjective, is the most suitable option. However, this raises the question of the comparability of the subjective measures across countries. Empirical studies support the cross-country comparability of two of the subjective measures of health or wellbeing used in this thesis (Veenhoven (2012) for life satisfaction; Jürges et al. (2008) for self-rated health; however, see Sen 2002, Barford et al. 2010 and Rubio-Valverde et al. 2018 for partially dissenting views). Moreover, the focus of this thesis is on inequalities within countries. Thus, the kinds of cultural differences across country contexts that could be problematic concerns differences across countries in how vulnerable groups within countries respond to the survey questions. For instance, one might hypothesize that women in Greece are more prone to overrate their health compared to men in Greece, and that this gender difference in “overrating” is larger in Greece than in Sweden. If these cultural differences are systematically related to the policies studied here, this would cause systematic bias; if not, it would mainly introduce noise.

4.4 Operationalizing social position

Theoretically, vulnerable social positions are in this thesis operationalized on the basis of the view of vulnerability proposed in section 3.3.2: vulnerability implies that the range of actions made possible by a set of resources constrains an individual’s opportunities so that she cannot actively manage her own life. The empirical operationalization of vulnerability takes this as point of departure.
Vulnerable social positions are identified in relation to age-related transition points in to or out of the labour market; in other words, by occupying social positions where resources are typically highly dependent on social policies. The specific vulnerable groups in focus varies between the empirical papers, but this is the guiding principle and smallest common denominator.

In papers I and II, the focus is on persons 65 years or older. This is because 65 years is a typical retirement age across Europe, and therefore a critical stage in terms of labour market status and dependence on social policy, especially pensions. In addition, this is an age where an increasing number become physically fragile, and thus more dependent on health and elderly care. Both of these age-related factors – lack of income from work, and physical fragility – imply that older persons are at risk of experiencing difficulties in actively managing their own lives without support, and hence entail dependency. The upper age limit (80 years) is chosen to avoid problems of health selection due to mortality and institutionalization.

In papers III and IV, the focus is on persons aged 18 to 29. This is because 18 or 19 is the typical age at which Europeans exit from (upper) secondary school, and either enter the labour market or continue to higher education. 18 is also an age when youth typically stop being minors, and the parents’ formal obligation to support their children ends. Together, these two aspects mean that most Europeans after approximately age 18 are in a new type of vulnerable position, where they can no longer take for granted that they can depend on the government for their main activity (i.e. education) nor on their parents for their financial or material support. It is a critical stage in terms of transition to adulthood, a transition that simultaneously implies a new vulnerability, and new dependencies on the welfare state. The upper age limit (29 years) is chosen to reflect the increasingly common “fractured” (Yates et al. 2011) or “dislocated” (Fergusson 2004) transitions into adulthood in contemporary Europe. For many Europeans, the traditionally linear route from education to standard employment has become more volatile and interrupted, and the process to establish oneself in the labour market has been extended over many years, with recurrent spells of atypical employment, unemployment, and further education and training. In general, the period between age 18 and the increasingly late entry into stable labour market positions is an age where many experience problems independently and actively managing their own lives without public support, a support that, in contemporary knowledge economies, is heavily centered on the provision of educational opportunities (European Commission 2016).

In addition to these age-related transition points, the thesis looks at differences by social class, employment status, or gender, within the respective age categories. This is done because the suggested definition of vulnerability
emphasizes that it is the resource endowment and therefore degree of dependence on public support that is central, not age in itself. Some individuals have much greater opportunities to secure adequate resources despite belonging to age-segments where the risks of vulnerability is otherwise high. Among older persons, this is particularly related to social class – and thereby working conditions and care-needs, and income and pensions – and to gender – and thereby informal care-responsibilities and income. Among younger persons, social class is equally salient, since a higher social background provides youth with resources to utilize both in the education systems and in the labour market, thereby lessening the dependence on public support. Moreover, among contemporary European youth, unemployment in particular is among the most salient issues in terms of life chances, and closely tied to vulnerability (Blossfeld et al. 2016). Needless to say, the characteristics covered in this thesis cannot cover all dimensions of social vulnerability, but they do provide a broad and variegated representation of vulnerability in relation to contemporary social policy.

Some additional comments might be in order regarding the precise measurement and operationalisation of social position. While operationalising age and gender is fairly straightforward, and the risk of measurement error is probably very small, social class, social background and labour market status are more ambiguous concepts. Social class (in paper I) was operationalised in accordance with the EGP classification scheme (Erikson and Goldthorpe 1992; Goldthorpe 2000). EGP is probably the most wide-spread classification scheme at least in comparative social research, and was chosen precisely for its high degree of cross-country comparability. Social background (paper III) was operationalised on the basis of the occupation of the respondents father, although both parents highest attained education level was also used in sensitivity analyses. Occupation was chosen because of lower risk of recall bias as compared to parental education (Engzell and Jonsson 2015), and fathers’ occupation mainly because of a higher degree of cross-country comparability due to large variation across Europe in the employment rates of mothers. Labour market status, specifically unemployment, was operationalised as the respondents main activity during the last seven days. This procedure – to define labour market status as the dominant status during a reference week – is standard in both survey research and official statistics, for instance in the European Labour Force Survey (LFS 2018).

4.5 Operationalizing social policy

4.5.1 A variable-oriented approach
Comparative social policy research typically operationalises social policy either as distinct clusters of countries (the “regime approach”), or as (often continuous) measures of specific social policies (the “variable approach”). These two
approaches also dominate the comparative literature on welfare states and health inequality (Bergqvist et al. 2013). The regime approach usually takes some form of welfare state regime typology, either that suggested by Esping-Andersen (1990) or some upgraded version of this, as point of departure. On the basis of their observed policy configurations, countries are grouped into regime clusters, which are in turn an amalgam of theoretically derived ideal-types and the empirical characteristics of the included countries. The variable approach can be subdivided into studies using expenditure based measures of various social policies (or the sum total of all social policy expenditure), and studies using a social rights approach, where the latter refers to for instance entitlement criteria and eligibility conditions of various social programs (Otto 2018; Clasen and Siegel 2008; Dahl and van der Wel 2013; Lundberg et al. 2015; van der Wel et al. 2018).

The aim with all three types of operationalization is, in the tradition of Przeworski and Teune (1970), to replace the proper names of countries with theoretically relevant variables. What is then a theoretically relevant variable? In comparative social policy analysis, it is typically the effort or generosity of the welfare state as a whole, or of specific social policies (Otto 2018). I have previously argued that the conceptual core of the welfare state is the (re)distribution of resources through public policies. All types of operationalizations described above capture some dimension of this redistributive effort. In this thesis, I have nevertheless, following Bergqvist et al. (2013) and Brennenstuhl et al. (2012), decided to operationalize social policies in accordance with the variable approach. A rationale for this thesis was to contribute to the theoretical development of the comparative health inequality literature (see research objective no. 5), an objective to which the flexibility of the variable approach is most conducive.

Leaving the discussion of the empirical validity of regime clusters aside, the main drawback with the regime approach, and, conversely, the main benefit of the variable approach, is that regimes are by definition the sum total of a myriad of different more or less coherent policies, and this makes it difficult, if not impossible, to disentangle the role of one type of policy from that of another. In statistical jargon, there is not within-regime variation. However, individuals typically do not encounter regimes as aggregated configurations in their everyday lives; rather, they encounter the specific component policies and institutions that together make up the regimes.

This has implications for theory. It is precisely the encounter of the individual, whose health is the explanandum, with the actual policy, that constitutes the very causal process through which the health impact of the policy arises (cf. Lundberg et al. 2015). It is in and through this encounter that relevant resources are distributed to vulnerable social positions and groups. I argued previously that a credible theory for how social policy shapes health inequalities must be grounded in an account of how policies distribute relevant resources and how individuals
in turn utilize these resources. Any theoretical development must therefore take aim at this micro-macro link, and to do that we are aided by an operationalization of social policy that allows us to both specify and test this link, or this encounter of the individual with the focal policy. A variable-oriented approach allows us to do precisely this, by identifying which policies are particularly salient in each specific case, and for each particular group. In this sense, a variable approach makes it possible to overcome the kind of atheoretical “black box” analysis otherwise common in comparative health research (Brennenstuhl et al. 2012).

A variable-oriented approach, moreover, has the additional benefit of allowing a focus on the service-dimension of the welfare state, which, as stated in section 1.2, has been relatively neglected so far in comparative health research. While a regime-approach by itself prohibits us from distinguishing between transfers and services (there is no within-regime variation), a variable-oriented approach enables us to look directly at the role of services, while simultaneously controlling for transfers or other country characteristics.

A limitation with the variable approach is that it – at least in a regression context with the assumption of independent, additive effects implied by regression analysis – is less well suited to handle configurational effects, that is, that several policies through their interaction together can generate a certain outcome. The variable approach can of course accommodate interactions between policies, but interactions become unwieldy with more than two or at most three component variables. Welfare regimes, on the other hand, by their very definition constitute configurations of policies, and are therefore more appropriate when configurational effects are in focus. Related to this, regimes, by describing the institutional configuration in toto, can capture functional equivalents in welfare states, that is, how different policies are designed to perform the same or similar tasks in different institutional contexts (an example is that both public benefits and tax credits can be used to combat poverty). There is a risk that this aspect is disregarded when the focus, as in the variable approach, is on specific policies rather than on institutional configurations and complementarities.14

14 From the perspective of functional equivalents, individuals can in an indirect sense be seen to “encounter regimes as aggregated configurations in their everyday lives” (see the previous discussion). The indirect “encounter” here refers to how different institutional configurations sort individuals with similar needs to different kinds of policies, but the actual encounter and thereby resource distribution nonetheless occurs at a more concrete level.
4.5.2 Pensions and elderly care

The specific policies that are investigated empirically are described at more length in the respective papers. Here I would rather discuss how the empirical operationalizations fit with the theoretical ambition developed in this thesis. Papers I and II look at pensions and elderly care. The theoretical idea is here to specify indicators that directly relate to the theoretical mechanism posited as generating the outcome (i.e. resource allocation or distribution). For older persons, the policies that most prominently determine their resource endowments and life chances are pensions and care policies. Due to their high degree of vulnerability, the level of minimum pensions is of particular relevance for working class and female older persons. Minimum pensions have a clear link to reduction of health inequality by preventing poverty and providing financial resources to vulnerable groups. Pensions are in this sense operationalized in accordance with the social rights approach, using data from the Social Policy Indicators (SPIN) database (Ferrarini et al. 2013), one of the most prominent sources of comparable data on social rights. SPIN offers wide temporal, geographical and substantial data coverage. Theoretically, it is based on a social rights approach to social policy, that is, it is designed to capture to what extent benefits are given as legislated rights to citizens or inhabitants of a country. An advantage with this approach, and consequently with SPIN data, is that the indicators directly capture redistributive aspects of the institutional design, and, being based on legislated rights, likely capture substantially important consequences of these designs. A drawback is that the indicators are based on model households, making it vulnerable for criticisms regarding normativity and lack of representativeness.

Harmonized cross-country data on care policies are rarer and less detailed than pensions data, and to the best of my knowledge, no meaningful indicators of the social rights to elderly care are available for a sufficient number of countries. Also, a social rights approach can be difficult in the context of care, due to the inherently subjective nature of care-need assessment. The most salient feature distinguishing countries in terms of elderly care policies are rather the resources devoted to this in terms of personnel or expenditure. Therefore, the effort of elderly care policies is in papers I and II operationalized as expenditure (relative to GDP), personnel resources, and coverage (in sensitivity analyses). An advantage with expenditure data, and related output-based measures such as personnel resources, is greater data availability, as well as that expenditure in highly labour intensive sectors such as elderly care mirror the quantity of care provided rather well. Aggregate expenditure measures, adding all expenditure in a policy area, are also arguably less prone to disregard functional equivalents. It should however be noted that when expenditures are expressed as a percentage of GDP – which is necessary to account for varying wage levels and production
costs in different countries – the measure is potentially sensitive to sudden changes in the denominator (i.e. in GDP).

The principal drawback with expenditure measures is that the redistributive effort of expenditure on “in kind” benefits such as services is difficult to capture. Aggregate expenditures do not by themselves imply any specific distributive profile. However, since public services such as care are typically financed through taxation, and offered on the basis of need, they tend to automatically redistribute from the general population to groups with greater needs, groups that are often vulnerable in the sense described in this thesis, such as children and youth (child care and education) and older persons (health and elderly care) (OECD 2011; Aaberge et al. 2010; 2018). Moreover, since taxation is typically progressive, but the services are provided free of charge or at a heavily subsidized prices, they tend to redistribute from individuals with higher incomes (such as higher classes or men) to those with lower (such as lower classes and women) (see again Aaberge et al. 2010; 2018, and Causa and Hermansen 2017). Note that the latter hinges on the assumption that high-income individuals do not have a sufficiently higher rate of utilization to offset the redistribution taking place on the funding side. Another assumption necessary for expenditures to have a redistributive social profile is that aggregate expenditures provide a reliable indication of the supply (quantity and quality) of the service.

The exact redistributive social profile of elderly care depends on legislation regarding among other things income testing and dependency thresholds (Saraceno 2010), data for which to the best of my knowledge are not available for a sufficient number of countries, but research shows that high-spending countries have smaller educational differences in informal care support (Saraceno 2010), and that a higher degree of formalization of care (a strong correlate of public spending) is associated with lower intensive care obligations among women (Schmid et al. 2012; Haberkern et al. 2015; see Van Lancker 2018 for similar results with regard to spending and inequalities in child care utilization). Moreover, Ulmanen and Szebehely (2015) found that cutbacks in Swedish elderly care disproportionally increased informal care obligations among women from the working class. Thus, although difficult to prove empirically in all cases, a plausible assumption is that high public expenditure on, or public employment in, care disproportionally distribute care resources to vulnerable groups such as older women and working class older persons. Data on expenditure are from Eurostat, the official European Union statistics agency, but were crosschecked against OECD data and coverage data from Multilinks (2011) to ensure reliability.
4.5.3 Education policies

Papers III and IV look at the role of education policies. In contemporary Europe, education is arguably the most important determinant of the life chances of youth and young adults, why educational policies ought to be put at center stage when this age group is in focus (Blossfeld et al. 2016). In this thesis, I argue that educational policies can impact on health, specifically the wellbeing component, both by providing actual students with education, and therefore the resources attached to attained education, but also by providing opportunities to access education, where the access opportunity itself increases agency and therefore wellbeing (the capability-argument). Socially vulnerable groups, who lack both financial and embodied (i.e. knowledge and qualifications) means to access education, are disproportionally cut off from the wellbeing benefits of education and educational opportunities. From the perspective of social vulnerability, what is needed are policies that lower the barriers for entering educational institutions, especially for vulnerable groups. These can be of universal nature (i.e. more positions in higher education), or targeted towards vulnerable groups (i.e. second chance opportunities) (Orr and Hovdhaugen 2014); the main theoretical point is that the policies have a clear link to reduction of wellbeing inequality by redistributing attained education towards, or by increasing educational opportunities for, vulnerable groups.

The key to understanding how barriers are erected and maintained, and opportunities constrained, in education systems is to view these systems as sequentially structured, and careers within these systems as path dependent (Breen and Jonsson 2000; Shavit and Müller 2000; Shavit et al. 2007). Sequential structure means that education systems are hierarchically ordered according to a presumed progress, such that higher levels of the systems build on lower levels, and that students therefore must have completed lower levels, or lower levels of the right type, before gaining access to higher levels. Path dependence thus means that, at certain levels of education, the opportunity to access this level is conditional on whether the prospective student has acquired the necessary qualifications in the lower rungs of the system. Access opportunities at every given point in the system is conditional on the pathway through which that point is reached. The temporal dimension inherent in sequential processes implies that opportunities at a given educational level are a function of both the number of positions and the access criteria at that level, and of how the possible choices of pupils up until that point have been structured by path dependence. The first part determines the supply of education, while the second determines the supply of potential students (the demand) (Breen and Jonsson 2000; Shavit et al. 2007).

In order to capture the sequential structure determining access opportunities, papers III and IV use indicators pertaining to both (upper) secondary school and
higher (tertiary or post-secondary non-tertiary) education. As regards educational policies, indicators capturing both social rights as well as expenditures are used. Second chance opportunities and stratification or tracking are conceptually related to social rights, since they concern legislated rights, for all youth, to access certain levels or types of education. Expansion of higher education (the number of positions) is more in line with the expenditure approach, since it does not by itself imply any rights to education or any distributive profile. Affordability and costs of education can be seen as a hybrid between social rights (in principle, it implies a social right to free education) and expenditure (since higher education is optional, and contains other non-financial barriers, affordability it does not guarantee that the right is exercised by all groups). Data on educational policies are primarily from OECD, but also from UNESCO and Eurostat, data that, while not flawless (e.g. Clasen and Siegel 2008), probably are the most reliable and comparable there is for a large number of countries. Papers III and IV also rely heavily on country data from Eurydice, a European Union network with the task of providing comparable data on European education systems (Eurydice 2012).

4.6 Analytical strategies
The main analytical strategy employed in the empirical analysis in the papers is multilevel modelling. Sometimes the terms random coefficient models, random effects models, hierarchical models or mixed models, are used instead (Rabe-Hesketh and Skrondal 2012). Multilevel models have probably become the most popular technique for modelling country level effects in cross-country comparative studies (Schmidt-Catran and Fairbrother 2016). They have also become popular among health researchers who are interested in the social determinants of health, since these social determinants, like policies, are often located at a contextual level (Diez Roux 2003; Dahl and van der Wel 2013). Multilevel models enable the simultaneous estimation of variability between individuals and between higher level units such as countries, and how an outcome variable is related to both of these levels.

Multilevel models have been developed in order to deal with clustered or hierarchical data, where individual observations are not independent of each other. Independence should here be understood as statistical independence, that is, that the occurrence of an observation does not provide information about the occurrence of another observation (or more technically, that the error terms of observations are not correlated). For instance, if someone measures my self-rated health today, and then measures it again tomorrow, the information regarding my health today can, if I am not very volatile, be used to approximate my health tomorrow. The two measurements or observations are clearly dependent on each other, and the error terms from them are most surely correlated. In the context
of this thesis, statistical dependence means that two observations (i.e. individual responses) that share the same country context are not independent of each other, because the country context tends to exert an impact on individuals, such that individuals in one country systematically tend to respond above or below average on certain questions as a result of this shared environment. With dependent observations, statistical techniques that do not take the dependence into account, such as OLS regression, will yield underestimated standard errors. This is because it treats each separate observation as providing an equal amount of new information, as would be the case with independent observations (Rabe-Hesketh and Skrondal 2012). Multilevel models solve this problem of dependent observations by decomposing the error term, thus rendering the error terms uncorrelated across higher-level units, and by estimating separate intercepts for each respective higher-level unit.

Besides the purely statistical properties of providing correct estimates of level 1 (individual level) coefficients and their standard errors, another reason for the growing popularity of multilevel models is the interest in contextual effects and effects of higher- or group-level characteristics of social systems in the social sciences. Multilevel models not only account for the consequences of clustered data, but can also be used to analyse the clusters themselves, and the characteristics of these clusters (Rabe-Hesketh and Skrondal 2012). That is, when the group-level effects themselves are of interest, as is the case in this thesis, multilevel models are beneficial. First, under certain assumptions, multilevel models provide correct estimates of higher-level effects, which, given the focus on country-level policies in the thesis, is crucial. Second, multilevel models allow for a decomposition of the overall variance in the outcome variable into variance at different levels, and thereby a measure of the extent of the dependence on higher-level clusters of observations. In this thesis, this means that we are able to calculate the amount of variance in health across individuals that are accounted for by the country-level clustering of the data, or, in other words, how much of the variance that are between individuals and between countries, respectively. Third, multilevel models enable estimation of cross-level interaction effects, that is, interaction terms of variables at different levels. Substantially, this means that the effect of a lower-level characteristic, such as individual level vulnerability, is conditional on a higher-level characteristic, such as a specific social policy.

Multilevel models, however, have one major drawback for the purpose of this thesis. A special, and not frequently acknowledged, feature of large-N comparative studies using multilevel models (see the discussion in section 4.1) is that they build upon frequentist statistics, which in turn builds upon probability theory. Statistical inference (i.e. from the sample to the population) in frequentist statistics is based on the central limit theorem, which in turn assumes random samples. However, cross-country comparative studies are almost never based on
random samples, for the simple reason that there are not enough countries with sufficient data to draw a random sample from (and even if there were, a total sample would in any case be more appropriate) (Ebbinghaus 2005). This applies to the empirical studies in this thesis as well. The selection of countries have not been random, but I have instead included all countries with sufficient micro and macro data, so as to both increase generalizability and ensure adequate statistical power.

The non-random sample of countries has two consequences. First, since the countries do not constitute a sample of a larger target population (such as “all” countries), the results cannot be generalized universally, but should be limited to a European context of relatively mature welfare states (the sample does approach a complete sample of this target population). Second, the p-values and associated significance tests in the included empirical studies should not be interpreted literally. Technically, a p-value is the probability of observing an estimate at least that far away from zero (the null-hypothesis) in the sample, given that the null-hypothesis is true in the population, but without a random sample from this population, this no longer holds. In fact, an explicit assumption of multilevel models is that the random variables (e.g. the country specific intercepts) are treated as a random sample from a pre-defined population to which we aim to make inferences (Goldstein 2003).

Then why bother with standard errors, t-statistics, p-values and significance tests if they are not technically applicable? Besides ingrained customs, a good reason to keep with this tradition in comparative research is that the variability of a variable can be as important as the point estimate of the average effect (Goldthorpe 2016), and that, in a probabilistic world, it is necessary to estimate the uncertainty of coefficients (King et al. 1994). The significance tests of country effects in this thesis should, therefore, not be interpreted as a test of whether the hypothesis is likely to be true or not in the sense of statistical probability, but rather as an indication of the variability of countries and the effects of their policies around the point estimate, or in other words, how consistently the countries agree with the hypothesis.
5. Included papers

The thesis includes four papers. To make the conceptual model described at the end of section 3 – that is, the general conceptual model of the thesis – more concrete, I will here briefly discuss how each of the included papers fit into this conceptual framework, or, in other words, how the central building blocks of that model (Figure 1; reproduced below) can be applied to explain the findings in the respective papers.


**Background:** Social inequalities in health persist in old age. However, the intersection of social class and ageing has been largely neglected in comparative research on health inequalities and social policy, despite the high degree of dependence on the welfare state for older people.

**Aim:** The aim of the study was to investigate how class-related gradients in health among middle-aged and older people vary depending on the design of public pensions and elderly care policies.

**Hypotheses:** Two of the most important domains of social policy for the life chances and living standards of older people are the pension system and elderly care policies. Pensions distribute financial resources which in turn can be used to promote health and avoid health hazards, while elderly care can help fragile individuals maintain or even improve their health. We argued that the *redistributive* role of the pension system can affect health inequalities through two
mechanisms: (1) by preventing poverty and material deprivation, and (2) by reducing income inequality among older people, which can have contextual effects on health, particularly for low-income groups. Public elderly care is generally provided according to need and heavily subsidized, which since the need is usually greater, but resources more meagre, among lower classes, can be expected to reduce health inequalities. Two hypotheses were formulated:

The generosity of minimum pensions moderates the association between social class and health such that health inequalities are smaller when minimum pensions are more generous (hypothesis 1), and the generosity of public elderly care moderates the association between social class and health such that health inequalities are smaller when elderly care is more generous (hypothesis 2).

Data and methods: Individual-level data were from the European Social Survey (ESS), rounds 2002 to 2010, including close to 40 000 individuals in the 65-80 years age bracket, in 21 European countries. The dependent variables were self-rated health and limiting long-standing illness (LLSI). Social class was operationalised in accordance with the Erikson-Goldthorpe-Portocarero (EGP) classification scheme. Country-level minimum pensions generosity was operationalised as the replacement rate (as a percent of an average production workers wage) of minimum pensions, with data from the SPIN database. Generosity of public elderly care was operationalised as total expenditure on elderly care as a percentage of total social protection expenditure.

Multilevel logistic regression models were fitted, and the hypotheses were tested through cross-level interactions between social class and the respective policies, with health as outcome.

In addition, we investigated one of the proposed mechanisms behind the hypothesised moderating effects. Specifically, we included individual subjective income in separate models to investigate whether the moderating effect was weaker once we controlled for this, as would be expected if at least part of the moderating effect operates by preventing poverty and providing financial resources to lower classes.

Results: The empirical results showed that unskilled, skilled and routine workers, as well as farmers, had significantly better self-rated health compared to professionals (the reference category) when minimum pensions were more generous, and unskilled and routine workers had significantly better self-rated health compared to professionals when expenditure on elderly care was higher. With limiting long-standing illness as dependent variable, farmers had significantly better health when minimum pensions were more generous, and unskilled workers when elderly care was more generous. In addition, the
empirical results showed that the moderating effects of minimum pensions weakened when we controlled for individual subjective income.

**Conclusions:** The empirical results were mostly in line with both hypotheses, as both minimum pensions and elderly care expenditure moderated the association between social class and health. The support was slightly stronger for minimum pensions (hypothesis 1), and with self-rated health as outcome. The result that the moderating effects of minimum pensions is weaker when controlling for individual income suggests that part of the effect of minimum pensions is due to the fact that generous minimum pensions prevent poverty and strengthen financial resources among lower classes.

**Paper I from the perspective of the general conceptual model**

If we go back to the conceptual model (Figure 1) described at the end of section 3, the social position in paper I is social class (in old age), and the most vulnerable classes include the working class and farmers. The first arrow (A) relates to material resources, and depicts how vulnerable social classes (positions) are at risk of having lesser financial means in the form of earnings-related old age pensions, while simultaneously having on average poorer body function (less embodied resources) due to inequalities during working life. Since financial resources can be used flexibly (including buying care) to promote health and wellbeing (arrow B), this in turn can generate inequalities in health. However, the link between social class and material resources (arrow A) is not constant, but can be modified by pensions that redistribute cash that can be used flexibly by the receiver (arrow C). Generous minimum pensions thus ensure sufficient financial means also for the working class and farmers, while public care policies make access to care less dependent on income, and can moreover meet the need for embodied resources by providing benefits in-kind in the form of care. By severing the link between social class and material resources as well as care, redistributive pensions and care policies also mitigate the class-based inequalities in health.

**5.2 Paper II - Gender and health among older people: What is the role of social policies?**

**Background:** Comparative research on macro-level determinants of gender inequalities in health are scarce, and research with focus on policies and subgroups among men and women almost negligible. However, policies and institutions crucially structure relations between men and women, and older people are heavily dependent on social policies for their welfare.
Aim: The aim of the study was to investigate whether the structure of pensions and elderly care policies moderates the association between gender and health among older people (aged 65 – 80 years) across European countries.

Hypotheses: Women tend to have poorer health and higher morbidity than men, partly because women have less control over material resources, in turn a consequence of weaker attachment to the labour market, and partly because women tend to perform more unpaid work such as care work. These two mechanisms behind women’s higher morbidity are valid among older women as well. However, among older persons, the gender imbalance in material resources can be mitigated (or strengthened) by the redistributive structure of pension systems, and care responsibilities can be relieved by public elderly care, especially formal public provision of care services. The study tested four hypotheses:

Hypothesis 1 stated that pension systems that provide a tight link between earnings and pensions (generous standard pensions) are associated with relatively (compared to men) poorer health among women, while hypothesis 2 stated that generous minimum pensions are associated with relatively better health among women. Hypotheses 3 and 4 stated that more public investment in elderly care, and more formalized elderly care (that is, formal public provision), are associated with relatively better health among women.

Data and methods: Individual-level data was from the European Social Survey (ESS), rounds 2002 to 2012, including more than 40 000 individuals in the 65-80 years age bracket in 24 European countries. The dependent variables were self-rated health and limiting long-standing illness (LLSI). A tight link between earnings and pensions was operationalised as the replacement rate (as a percent of an average production workers wage) of standard pensions, and minimum pensions by the replacement rate of minimum pensions, both from the SPIN database. Generosity of public elderly care was operationalised as total expenditure on elderly care as a percentage of total social protection expenditure, and the degree of formalisation of elderly are as the number of workers formally employed in the care sector as a share of the population aged 65 or more. Multilevel logistic regression models were fitted, and the hypotheses were tested through cross-level interactions between gender and the respective policies, with health as outcome.

Results: Women had significantly higher odds of poor health compared to men. However, this was conditional on both pensions and care policies. When standard pensions were more generous, the gender differences, to the benefit of men, were larger, while they tended to be smaller when care policies were more generous. The cross-level interaction term with standard pensions (hypothesis 1) was significant for both outcomes, and the interaction terms with elderly care
expenditure and degree of formalisation of elderly care (hypotheses 3 and 4) were only significant with self-rated health as outcome. Minimum pensions (hypothesis 2) did not significantly moderate the association between gender and health.

**Conclusions:** Gender inequalities in health among older people can, at least to some extent, be countered by pensions and care policies. Hypothesis 1 received consistent empirical support, hypothesis 2 received weak support, while hypotheses 3 and 4 were supported with self-rated health as outcome.

**Paper II from the perspective of the general conceptual model**

Again referring back to the conceptual model (Figure 1) in section 3, the social position in Paper II is gender (in old age), and the most vulnerable position is female gender (being a woman). Arrow A depicts how female gender is linked to lesser material resources (due to performance of unpaid work during working life) as well as to lesser social resources (occupying a position within the household division of labour with less power, and with stronger care obligations, implying a relatively stressful workload). Since these resources can be used to achieve better health (arrow B), women are at risk of having worse health. Redistributive pension policies (such as generous minimum pensions) can weaken the link between gender and material resources, and public care policies can directly relieve older women of heavy and stressful care work (arrow C), and more indirectly influence gendered social norms regarding care obligations.

**5.3 Paper III - Education policies and social inequality in wellbeing among young adults.**

**Background:** Social determinants of health and wellbeing are unequally distributed depending on social background, and research shows that there is a social gradient in wellbeing among youth and young adults. Among social circumstances, family and school are of primary importance in shaping the lives of youth. However, very little research exists regarding the role of educational polices for social inequalities in wellbeing. This paper investigates both of these factors by asking how educational polices moderate the effects of family or social background on wellbeing among youth.

**Aim:** The study aimed to investigate how the institutional distribution of education and educational opportunities moderates the association between social background and wellbeing across European countries.

**Hypotheses:** Educational attainment affects wellbeing through two channels: (1) by providing resources that are useful in the labour market; and (2) by
providing other kinds of resources such as knowledge. Educational opportunities can furthermore enhance wellbeing by (3) increasing the choice sets of individuals, and thus enable them to pursue what they regard as fundamental goals in life. If part of the association between social background and wellbeing is due to lower educational attainment and more restricted educational opportunities among youth from low social backgrounds, inequalities in wellbeing can be counteracted by redistributing education (and opportunities) to these youth. Based on social mobility theory and educational research, the study looked at four different educational policies that can be expected to have this equalising effect. A higher age of selection into different school types (i.e. a low degree of tracking) (hypothesis 1); lower costs of higher education (hypothesis 2); a larger supply of higher education (hypothesis 3); and more generous second chance opportunities in higher education (hypothesis 4). Moreover, we argued that, if this underlying reasoning is correct, the moderating effect of these educational policies should be mediated by individual-level attained education, and the wellbeing-enhancing resources attached to this (employment and income) (hypothesis 5).

**Data and methods:** Data were from the European Social Survey, rounds 2008 to 2012. 25 countries, with 14 875 individuals aged 18-29 years, were included in the analyses. Wellbeing was measured by subjective life satisfaction, though subjective happiness was also included in sensitivity analyses. Social background was measured by father’s occupation.

Tracking (hypothesis 1) was measured by age of first selection into hierarchically ordered school types or tracks, with data from OECD. Costs of higher education (hypothesis 2) was measured as the share of total expenditure on higher education that comes from households, with data from Eurydice. Enrolment rate (hypothesis 3) was measured as the share of the population aged 20-29 who are enrolled in tertiary or other forms of post-secondary education, with data from Eurostat. Second chance education (hypothesis 4), was measured as existence of routes that provide access to higher education to individuals who lack the typically required secondary education credentials, with data from Eurydice. The hypotheses were tested through cross-level interactions between social background and the educational policies, using multilevel models.

**Results:** All five hypotheses were supported by the empirical analyses. The educational policies were associated with significantly and substantially weaker effects of social background on wellbeing. In the countries with the most inclusive policies, inequalities by social background were in fact almost non-existent. Moreover, the sizes of the interaction terms were substantially reduced, and typically cut by around half, when individual educational attainment, employment and income were included as mediators (hypothesis 5).
Conclusions: Low social background is associated with lower wellbeing for youth and young adults across Europe. However, the extent of these inequalities is conditional on the structure of education systems. Educational policies that enable youth from low social backgrounds to attain higher education, and that provides them with more educational opportunities, are associated with smaller inequalities in wellbeing.

Paper III from the perspective of the general conceptual model

Based on the conceptual model (Figure 1) in section 3, the social position in Paper III is social class background, arrow A shows how this social position is linked to embodied resources, in this case primarily skills (education) and educational opportunities. Education is a resource that can be used to attain better health and wellbeing by for instance being converted into good jobs in the labour market, and educational opportunities, by increasing individual capabilities, are related to individual’s agency and control (arrow B). Inclusive educational policies – such as comprehensive schools, expansion of higher education, second chance opportunities and affordability – can modify the association between social class background and education and educational opportunities (arrow C), and thereby make inequalities in wellbeing less pronounced.

5.4 Paper IV - Unemployment, wellbeing and the moderating role of education policies – A multilevel study.

Background: Research shows that unemployment can have detrimental consequences for health and wellbeing, also for young adults. Public policy should find ways to counter these negative consequences. Education is an important determinant of unemployment risks among young adults, and research shows that educational policies affect youth unemployment rates. There is thus reason to expect that educational policies can shape the consequences of unemployment for wellbeing among young adults, who are in great need of education.

Aim: The aim of this study was to investigate if educational policies moderate the association between unemployment and wellbeing among young adults.

Hypotheses: Agency restriction theory posits that the lowered capacity to plan for or control the future restricts individual’s agency, their ability to actively pursue desired life goals, and thereby causes reduced wellbeing. Likewise, capability theory propose that individual’s potential to act has an intrinsic value: what people are able to do should they want to can be as important as what they actually decide to do.
Together, this suggests that policies that provide opportunities that give the unemployed more control over their future can address the restricted agency caused by unemployment, and thereby lessen the negative impact of unemployment. Educational policies are particularly relevant in this regard, since education can provide a way out of unemployment. On the basis of this proposition, the paper tested six hypotheses. The first four stated that (1) a lower degree of tracking in education systems, (2) a lower degree of vocational orientation of education systems, (3) higher enrolment in higher education, and (4) more generous second chance opportunities, would moderate the association between unemployment and wellbeing. In addition, the study stated two hypotheses based on observable implications of the underlying theory. Hypothesis 5 stated that the moderating impact of the policies would be strongest for unemployed with low education, and hypothesis 6 that policies would moderate the association between unemployment and capabilities.

**Data and methods:** Data were from the European Social Survey, rounds 2006 to 2012, including 26 countries, and 24,108 individuals aged 18-29 years. Wellbeing was measured by subjective life satisfaction, and capabilities by an item measuring to what extent the respondent felt she was free to decide how to live her life.

Tracking (hypothesis 1) was measured by age of first selection into hierarchically ordered school types or tracks, with data from OECD. Vocational orientation (hypothesis 2) was measured by the share of upper secondary pupils who are in vocational and vocationally specific education. Enrolment rate (hypothesis 3) was measured as the share of the population aged 20-29 enrolled in tertiary education. Second chance education (hypothesis 4), was measured as existence of routes that provide access to higher education to individuals who lack what are typically required credentials from secondary education. The hypotheses were tested through cross-level interactions between employment status (and education level with regard to hypothesis 5) and the educational policies, with life satisfaction as outcome (capabilities with regard to hypothesis 6), using multilevel models.

**Results:** Hypotheses 1 through 4 received considerable support, as tracking, vocational orientation, enrolment rate and second chance opportunities significantly moderated the association between unemployment and wellbeing. The support for hypothesis 5 was slightly weaker. The moderating effect of the policies were on average stronger for unemployed with low education, but these three-way interactions were only significant in three out of six cases. Hypothesis 6 was mostly supported, and all but one of the educational policies significantly moderated the association between unemployment and capabilities.
**Conclusions:** Unemployment is associated with considerably lower wellbeing among young adults in Europe. However, this association is clearly weaker when educational policies provide more opportunities for the unemployed to access education. Educational policies might have important spillover effects on the wellbeing of unemployed young adults.

**Paper IV from the perspective of the general conceptual model**

Based on the conceptual model (Figure 1) in section 3, the vulnerable social position in focus for Paper IV is unemployment (combined with low education) among young adults. Unemployment is directly associated with a loss of material resources, and indirectly associated to embodied (skills depreciation) and social resources (social participation) (arrow A). The reduced agency and control resulting from this in general implies a more narrow choice set and opportunity structure. Loss of these resources in turn makes it difficult for unemployed young adults to attain good health and wellbeing (arrow B). However, inclusive educational policies – such as second chance opportunities, expanded higher education etcetera – provide opportunities for unemployed young adults to escape unemployment and re-enter education, and thereby directly modify the link between unemployment and important resources determining the choice sets of individuals (arrow C). This in turn reduces the negative association between unemployment and wellbeing.
6. Conclusions

6.1 Conclusions

The thesis had five specific research objectives. The first four of these objectives are primarily addressed by the included empirical papers, and need not be discussed at length here. The fifth was of a more theoretical nature, is primarily addressed through this $\kappa$, and discussed later in this section. The first objective was to study how elderly care moderates the association between social class and gender, and health and wellbeing, in old age. Overall, the empirical results in papers I and II showed that public investment in elderly care moderates the association between both social class and gender and health/wellbeing, such that inequalities by gender and social class were smaller when public investment was more generous. However, as regards gender, this only applied to self-rated health, not limiting long-standing illness. Moreover, a higher degree of formalisation of elderly care was associated with smaller gender inequalities in self-rated health.

The second objective was to study how pension systems moderate the association between social class and gender, and health and wellbeing, in old age. Again, the empirical results overall supported the notion that the structure of public pension policies moderates the association between health and both social class and gender. Specifically, redistributive minimum pensions were associated with smaller inequalities by social class in especially self-rated health but also limiting long-standing illness, while more status-maintaining standard pensions were associated with larger gender inequalities in both self-rated health and limiting long-standing illness.

The third objective was to study how educational policies moderate the association between social class background and wellbeing among young adults. The empirical analyses showed that inequalities by background were smaller when educational policies are more inclusive, specifically with low degree of tracking, lower costs of higher education, a larger supply of higher education, and generous second chance opportunities. Moreover, this was partly accounted for by how inclusive educational policies were associated with smaller inequalities in attained education, employment and income, factors that in turn were associated with higher wellbeing. It should also be stressed that, if the argument of Paper III is correct, the smaller inequalities in inclusive education systems are also partly due to the educational opportunities themselves, that is, by the potential to access educational institutions.
The fourth objective was to study how educational policies moderate the association between employment status and wellbeing. The empirical analyses showed that the association between unemployment and wellbeing was clearly weaker when educational policies were more inclusive and provided greater opportunities for unemployed young adults to enter education. In other words, the relative wellbeing disadvantage of unemployed young adults was smaller in less tracked and less vocationally oriented education systems, in education systems with more places in higher education, and when education systems offered more second chance opportunities. The effects were in many cases particularly pronounced for unemployed with low education. Moreover, similar moderating effects of the educational policies were observed with capabilities as the outcome. A likely explanation of these results is that educational policies can have spillover effects on wellbeing, by providing opportunities for individuals in great need of education, such as the unemployed, especially unemployed with low education. The potential to access educational institutions has an intrinsic value, in the sense that it enables young adults to enter education should they want to, and thereby strengthens their agency and their control over their lives.

Two overall conclusions based on these four research objectives would be that, first, substantial inequalities in health and wellbeing between vulnerable and less vulnerable groups exist all over Europe, despite the affluence and comparatively ambitious welfare state efforts characterizing the continent. These inequalities refer to the average across the continent; however, and this is the second overall conclusion, this average conceals substantial variability in the size of inequalities across European countries with different policies. On average, vulnerable groups are worse off, but how much worse off varies substantially across countries, and in some cases no significant health differences were detected in the analyses. The variability of the size of inequalities shows that inequalities in health is not a constant, not something given by nature, and redistributive social policies are associated with relatively better health for vulnerable groups.

I return to the fifth objective – to develop and implement a theoretical framework for analyzing the role of social policy for health and wellbeing of vulnerable groups – shortly.

6.2 Contributions

In the Introduction (section 1), I argued that this thesis should be understood against the backdrop of the current state of the comparative welfare state and health literature. Specifically, I intended to address four specific limitations or gaps in this literature: (1) a relative scarcity of studies looking at the impact of specific policies; (2) an imbalance such that the service or “productive” dimension of the welfare state has been comparatively neglected; (3) a lack of focus on
specific social groups and subgroups, especially with regard to subgroups that are most heavily dependent on social policies; and (4) a lack of theoretical elaboration regarding the mechanisms linking policies to health inequalities. While four empirical papers and one kappa can obviously not by themselves overcome all these limitations in toto, my hope that this thesis has at least come some way in addressing them, and, what is more, that it can be seen as contributing to rebalancing the agenda for future research on the topic.

With regard to the first and second limitations, related to specific policies and especially services, I hope that this thesis can to some extent demonstrate the analytical utility of disaggregation at the level of countries and policies, of going beyond broad clusters of countries (such as geographical regions) to focus on specific policies and institutions, not least those related to the service dimension of the welfare state (cf. Lundberg et al. 2015). In many cases, the variation within geographical regions with regard both to the size of health inequalities and the design of policies was rather substantial. Moreover the design of different specific policies related to one and the same policy domain can vary considerably within countries, such that the same country can have inclusive policies with regard to for instance second chance opportunities but not with regard to opportunities provided in upper secondary school, or the same country can have generous minimum but not standard pensions, or vice versa. In this complex policy context, a variable-oriented approach, where both larger regions and countries are disaggregated into a set of specific indicators of welfare state effort, offers more flexibility. A variable-oriented approach thereby enables the researcher to capture salient features of both the size of the health inequalities and the design of the policies in the respective countries. Not least, the salience of the service dimension of the welfare state would have been difficult to capture without such a disaggregation.

These are meta-level conclusions; as regards the empirical contributions, one might conclude that, although causal inferences should be made with caution, the results in the respective papers suggest, first, that policies that redistribute resources to vulnerable groups are associated with relatively better health for individuals in these groups, and second, that the same particular policies can be beneficial for different vulnerable groups. For instance, second chance opportunities in education seem to benefit both working class and unemployed young adults, while public elderly care equalize both class and gender-based inequalities among older people.

With regard to the third limitation – a lack of focus on specific social groups, especially those most dependent on social policies – I hope that this thesis can demonstrate the value of disaggregation at the level of populations and individuals as well. While everyone living in mature European welfare states are
of course affected by them in one way or another, the degree of dependence on the welfare state for resources and life chances vary enormously across different segments of the social structure and across individuals occupying positions in this structure. Since resources are fundamental for health and wellbeing, one can assume that the importance of social policies for health varies as a function of the degree of dependence or vulnerability of different social groups (cf. Dahl and van der Wel 2013). In line with this conjecture, the empirical analysis largely found that the effects (in a statistical sense; I use “effect” for brevity throughout) of the policies were strongest for more vulnerable groups.

The fourth limitation addressed by this thesis – the need for theoretical elaboration regarding the mechanisms linking policies to health inequalities – is related to research objective no. 5. I have strived to move beyond “black box” accounts, in which explanation (or lack thereof) is often limited to drawing up long inventories of risk factors, without a coherent idea of how these factors relate either to each other or to the actions of actual human beings. Hence the fairly heavy emphasis on theory in this kappa, and hence the ambition to clearly explicate the core mechanisms and causal links in the empirical papers. Were it not for this theoretical ambition, the contribution of this thesis would be limited to adding descriptions of a number of risk and protective factors related to vulnerability and social policy to an already extensive inventory.

The ambition has been to at least sketch an outline of how a theoretically coherent framework of the role of social policy for vulnerability and health might look like. In order to be a successful outline in this regard, the framework ought to satisfy two conditions (see the discussions in sections 3.2.2 and Appendix A). First, it ought to be able to explicate and clarify the causal mechanisms involved (Hedström and Ylikoski 2010). Causal mechanisms should here be understood as abstract generative processes involving the salient steps in the relevant causal chain leading from vulnerability through social policy to health. Second, the theoretical account of this generative process ought to be based on a plausible model of purposeful human action, which, at an aggregate level, can give rise to the observed empirical regularity, or “statistical uniformity” (Weber 1922/1964: 99; also Coleman 1990 and Boudon 2003). As argued by Weber (1922/1964: 99), an adequate causal explanation requires that “the process which is claimed to be typical is shown to be (...) adequately grasped on the level of meaning”. Note that this does not mean that the analysis should only be directed towards the level of purposeful individual action – this ambition would have been self-defeating for an analysis of policies that are obviously in a sense external to individuals – but it does mean that no theory aiming to explain a phenomena in one sense or another brought about by human action can circumvent the analytical centrality of action itself.
How, then, does this thesis fare against the action- (or mechanism-) based explanatory ideal? Or, perhaps, how does the action-based ideal fare in health and wellbeing research? The action-based ideal is firmly grounded in methodological individualism, where the basis is on individual choice and action, and does a fine job in explaining processes and outcomes that are by nature an aggregate of individual actions and choices. However, does it make sense to say that individuals choose or decide their own health or wellbeing? In extension, this would mean that individuals choose their own poor health, for instance depression or disability, which is plainly absurd.\(^{15}\) It would make sense to use this terminology to explain behaviors with certain consequences for health, for instance smoking, but not to describe health outcomes themselves.

With the help of the resource-based approach to health (see section 3.2), I have nonetheless attempted to sketch an explanatory model that is inspired by more action-based ideals. The argument is that even if health and wellbeing in itself is not the object of an intentional and deliberate choice, a myriad of choices that in turn, through biological or neurological processes that are beyond the remit of social science proper, shape health and wellbeing. The range of available choices, in turn, is directly constrained by the resource endowments of individuals, such that more, and more diverse, resources enlarge the choice sets of individual (cf. Sen 2006; Diener and Fujita 1995).

I previously stated that it is reasonable to assume a universal demand for health and wellbeing, or, in economic jargon, that individuals have a preference for health (cf. Cutler and Lleras-Muney 2008). If some choices that have benefits for health and wellbeing require certain resources, and if resources are tied to social positions, social positions will influence health and wellbeing (note, however, that the theory does not claim that resources are the only cause of variations in health, only that it is one key mechanism behind social inequality in health).\(^{16}\) If certain groups – I call some of them vulnerable – occupy social position with few or poor quality resources attached to them, this will imply that these groups have more constrained choice sets, and are not able to make choices which improves their health and wellbeing (Wheaton and Montazer 2010). If social policies in turn modify the extent to which resources are attached to social positions, or how

\(^{15}\) However, for an economic theory of suicide, see Hamermesh and Neal (1974: 85): “we assume that an individual kills himself when the total discounted lifetime utility remaining to him reaches zero”. If all you have is a hammer, then everything looks like a nail; and if all you have is homo economicus, then everything looks like a utility function.

\(^{16}\) Note also that there might be countervailing forces, such as “hedonic adaptation”, whereby positive or negative events mostly have short-term effects on wellbeing, after which the individual adapt her expectations to the new state (cf. Diener et al. 2006).
individuals are allocated into these positions, social policies will moderate the association between vulnerability and health and wellbeing.

In other words, if resources can be utilized in order to attain positive health outcomes, and if individuals value health, then reasonably rational individuals will use at least part of their resources for this purpose. If individuals in vulnerable positions have limited resources, but social policies can modify these, then we have a sensible action-based explanation of the empirical results of the papers (though admittedly at a rather abstract level). In this sense, the thesis does a reasonably good job in making sense of the underlying social processes that, it is hypothesized, gives rise to the explanandum. However, in order to do a reasonable job in this regard, the explanation must take a step back from more pure forms of action-based methodological individualism, and admit that health and wellbeing is not a free choice in the strict sense sometimes posited by this tradition.

Since this theoretical framework or outline was integrated into research objective no. 5, I should stress that it was in no way created ex nihilo, but should rather be regarded as a synthesis of existing theories. As is hopefully made clear from the review of existing theories in section 3.2, while my own account is not identical to these approaches, I draw heavily on fundamental causes theory (Link and Phelan 1995) and the Scandinavian or Swedish tradition of welfare state research (Erikson 2003), as well as more general theories regarding social structure and action (e.g. Weber and Coleman). Moreover, the proposed theoretical framework does not preclude for instance behavioral or neo-materialistic explanations; rather, it should be seen as situated at a higher level of abstraction.
7. Discussion

7.1 Limitations
All research designs involve trade-offs between different valuable objectives (Przeworski and Teune 1970; Dunning 2010). For this reason, all research, no matter how well designed and executed, have limitations. I shall discuss some of these limitations, as well as some strengths of the thesis, below, before moving on to a forward-looking discussion regarding the implications of the thesis. Many of the limitations mentioned are common to comparative health research, and the list demonstrates that much remains to be done.

In my view, the main limitation of this thesis concerns the data and methodology. In particular, it is not advisable to make strong causal interpretations of the empirical results (although causal claims can of course be of a more theoretical nature). If we take the standard statistical definition of causality as counterfactual dependence (e.g. Holland 1986; see Appendix A) as point of departure, some strong assumptions must be satisfied for the statistical coefficients in the included papers to be given a causal interpretation. Most importantly, the focal explanatory variable must be exogenous, which, technically, means that the focal variable is uncorrelated with the error term, and theoretically means that expected counterfactual outcomes are unrelated with said variable. If these conditions hold, the estimate will be an unbiased estimate of the (counterfactual) causal effect. In the context of this thesis, this in practice means that there are no omitted variables that are associated both with the generosity of social policies, and with the size of health inequalities (or rather with the association between vulnerability and health). In other words, there are no omitted variables that are causally prior to the focal independent variables. While a researcher working with observational data always tries to deal with endogeneity and omitted variable bias in one way or another, there is no way to definitely rule out this source of bias. I tried addressing it as best I could given the data and knowledge at hand, by among other things performing a number of robustness checks to examine how sensitive the estimates were to various model assumptions, but ultimately any causal interpretations of the empirical results are theoretical (cf. Heckman 2005), and some readers may judge their credibility differently.

Moreover, health selection is always a potential threat to causal estimation in health research. In this thesis, health selection into the focal macro-units (countries, and their social policies) is probably not a major problem. However, if health selection is a key factor behind the poorer health observed among vulnerable groups in general (i.e. health selection into low social positions) rather than social causation (low social positions “cause” poor health), the credibility of
the policy-estimates as causal effects on health can be put in doubt. Health selection is difficult to account for with cross-sectional data.

Also related to the data and methodology is that the comparisons are all made at the level of countries, although several of the focal policies are implemented and even designed at lower administrative levels. This in particular applies for the service dimension of the welfare state, which is in many countries decentralized and governed by municipalities or regions (Nygren et al. 2018). Decentralization inevitably implies variation across lower administrative units within countries, but since countries and national policies were the unit of analysis of this thesis, this potential within-country variation could not be addressed. The thesis is therefore vulnerable to accusations of unwarranted “methodological nationalism” (Wimmer and Schiller 2002). Ultimately, this limitation is due to data availability. While the European Social Survey contains data on the NUTS-level (Nomenclature of Territorial Units for Statistics) of respondents, these only refer to the second NUTS-level (two digits) and is not relevant for lower level administrative units such as municipalities or counties. And the data limitation is even more severe when it comes to standardized policy data, which, also for decentralized policies such as elderly care, are typically only available at the level of countries.

Another potential limitation with the macro- or policy data is that of comparability. While the quality of much international social policy data is undoubtedly higher today than some decades ago, measuring the quality, quantity and ultimately effort of welfare states is by no means straightforward. The conceptual challenges – regarding for instance expenditure vs. social rights approaches – have already been addressed in section 4. Another problem, particularly acute as regards comparability, concerns the validity and reliability of the measurements themselves. With regard to expenditure, different countries use different ways of accounting for various types of expenditure, from various administrative levels, and the aggregation of these types can involve arbitrary choices (De Deken and Kittel 2008). This is probably less problematic for analyses across countries, where the real differences across countries are typically larger than the measurement errors, but it can introduce serious complications for analysis over time within countries, since differencing and other approaches that rely on within-unit variation can greatly exacerbate the importance of measurement error when errors are large relative to the overall within-unit variation (cf. De Deken and Kittel 2008). The quality of measurements are also likely to differ across countries. For instance, OECD and Eurostat completely lack data on educational expenditure for Greece for several years during the financial crisis, raising doubt about the quality of the data before this gap as well. The degree to which nominal values correspond to actual policy practice can therefore be put in doubt in some cases.
A further limitation, again related to the macro-level data and methodology, was mentioned in section 4.6. The included countries do not constitute a random sample of any meaningful larger population of countries to which inferences can be made through standard inferential techniques. In this sense, the empirical results should not be generalized beyond the ultimately European context of mature welfare states, at least not on empirical grounds alone.

With regard to the individual-level data, a major limitation is that the cross-sectional data used is not well suited for a life course approach to health and wellbeing, since it is only possible to study the individual at a single point in time. Yet, contemporary approaches to health and health inequalities, especially as regards a bio-medical conceptualization of health, stress that the etiology of many diseases is such that they cannot be understood except as developing over time, perhaps over several decades (Kuh and Ben-Shlomo 1997). This is more problematic for some measures used in this thesis than for others. Limiting-long-standing illness among older persons is to some extent the result of an accumulation of experiences over the entire life course, while subjective life satisfaction more directly reflects short-term changes and events, such as unemployment.

An additional limitation with the individual data is that the health and wellbeing measures are all self-reported and hence subjective. While there is nothing inherently deficient with subjective measurements – after all, the individual herself is arguably the foremost expert of her own general health and wellbeing – they do introduce problems for comparisons, particularly across countries and cultures. There might be cultural differences in how questions are understood and interpreted, which can introduce bias and/or measurement error in cross-country comparative research (Sen 2002). However, this problem should be less severe with regard to inequalities in health and wellbeing, since the focus then is on differences between individuals within countries who share the same overarching, national culture. If anything, to the extent that subjective assessments are influenced by reference groups, subjective measures will probably underestimate the size of health inequalities within countries (Barford et al. 2010).

7.2 Strengths
Trade-offs also, hopefully, imply that the research has some merits as well. Two merits that I would like to highlight have already been discussed, and need only be shortly repeated here. First, I hope that the theoretical approach taken strengthens the social scientific relevance of the thesis while simultaneously making the causal argument more credible. Second, I believe that the intersectionally inspired approach – going beyond socioeconomic status to
instead apply theoretically informed classifications based on vulnerability – goes some way in making justice to the complexity of social stratification (cf. Gkiouleka et al. 2018).

A further potential merit of the thesis, or rather with the results of the thesis, that has not been discussed thus far, concerns the consistency of the empirical findings across different policies and social groups. In “Designing Social Inquiry”, King et al. (1994) stated that theories ought to be evaluated on the basis of their theoretical leverage and empirical observable implications. Theoretical leverage means that the theory should be able to empirically explain as much as possible with as few theoretical means as possible. Testing observable implications means that researchers should clarify the logical implications of the theory, and to the furthest extent possible test these implications against the data (hence “observable” implications). If the theory is not falsified by these further tests, the veracity of the theory is supported. For this thesis, leverage means that the overall theory (developed in this kappa) ought to be parsimonious in the sense that it is coherent at a higher level of abstraction, while simultaneously being relevant to all the included empirical papers. At any rate, that has been my ambition with this kappa. Observable implications means that the overall theory should not be falsified by the results of any of the empirical papers, since these papers all test certain observable implications of the theory. One observable implication of the theory would be that the same kind of policies should be of relevance for different demographical or social groups who nonetheless share a similar resource endowment and degree of dependence on those specific policies. The findings that, for instance, second chance opportunities in education seem to benefit both working class and unemployed young adults, while public elderly care equalize both class and gender-based inequalities among older people, are in line with this evaluative criterion (King et al. 1994).

From another, for this thesis equally relevant, disciplinary perspective, Austin Bradford Hill stated nine criteria to be evaluated when discussing causal arguments in epidemiology and public health (Bradford Hill 1965). All nine criteria cannot be discussed in relation to this thesis as they are not applicable, but I do want to highlight three of them. According to Bradford Hill, the empirical evidence ought to be (1) consistent, meaning that similar results are observed in different contexts or circumstances; (2) plausible, meaning that there is a plausible link from cause to effect; and (3) coherent, meaning that the evidence

17 Incidentally, these criteria were formulated as part of the controversy of whether smoking caused lung-cancer. Bradford Hill argued that all available observational evidence suggested that smoking did cause lung cancer, while Ronald Fisher, on the basis of a strict adherence to the experimental ideal of causality, claimed that unobserved omitted variables could not be ruled out without experimental evidence (see Appendix A).
is in line with with other established evidence or theories. Bradford Hill refers to biological links (plausibility) and laboratory evidence (coherence), but in this context social evidence and theory would be of relevance as well. This thesis is, I argue, roughly consistent with all three criteria. The empirical findings are consistent across different operationalizations of vulnerability and different domains of social policy. The causal link is sociologically plausible, in the sense that it is consistent with a reasonably rational goal-directed action. And the theory is thereby also coherent with established knowledge of human action.

7.3 Implications for research

Before ending this kappa, I will discuss some implications of these results for future research on policy and health, as well as for social policy. The analyses presented in the papers demonstrate the value, limitations and potential pitfalls of certain approaches to the comparative study of social policy and health. For one thing, it demonstrates the analytical utility of looking at differences and inequalities, not mere averages, when studying policy effects. Averages easily obscure significant differences within populations, and thereby give an incomplete, and at worst distorted, picture of actual conditions, which, since knowledge regarding inequalities are indispensable for issues of fairness, is also of importance for policy. This analytical utility is perhaps best demonstrated by the cross-level interaction terms in papers I through IV, which revealed important differential effects, that is, that the effects of the policies were significantly stronger for the vulnerable groups studied. Thus, had the analysis been limited to population averages, we would wrongly have concluded that any effects of the policies were uniform across the social spectra. Similar observations regarding the importance of inequality and heterogeneous effects have been made in the domain of economics, where research have traditionally been occupied with the study of efficiency, but where questions of distribution (the term equity is often used in economics) is increasingly being recognized as being of equal significance, not least in relation to policy analysis (Milanovic 2016; see also Piketty 2015 and Morelli 2017).18

Related to this, another contribution of this thesis is how it demonstrates the value of disaggregation at both the macro and the micro levels. This disaggregation in turn have implications for how some apparently paradoxical results from the comparative health literature. Specifically, a number of studies

---

18 Milanovic (2016: 234) even goes so far as to call it a paradigm shift away from the “representative agents” paradigm to a concern with heterogeneity, which, however, considering the long history of studies on inequality in other disciplines perhaps says more about economics than about the social sciences at large.
have showed that, contrary to theoretical expectations, the Nordic countries, or social democratic welfare states, do not exhibit the smallest inequalities in health, neither between social classes or other socioeconomic groups (Mackenbach et al. 1997; Mackenbach et al. 2008; Eikemo et al. 2008) nor between men and women (Bambra et al. 2009). This apparent puzzle gave rise to a debate in the research community concerning how this inconsistency between theoretical predictions and empirical results could be explained (Lahelma and Lundberg 2009; Dahl and van der Vel 2015; Mackenbach 2012). According to some interpretations, the results of these studies put into question the very idea that equal societies and redistributive policies are associated with reduced health inequalities (Hurrelmann et al. 2011). The “Nordic puzzle” thus has far-reaching implications for comparative health research, potentially undermining theories stating that redistributive policies should equalize health inequalities, and thereby implicitly resource-based explanations of health inequalities more generally.

This thesis is not the right forum to engage in the subtleties of that debate, but I would argue that the thesis, through its design and theoretical framework, can contribute with one piece to resolving this (apparent) puzzle. In a review of research on health and health inequalities in the Nordic countries, Bambra (2012) noted that some evidence suggest that the Nordic countries actually do have better health than other countries among certain especially vulnerable groups. For instance, Zambon et al. (2006) found that associations between family affluence and health among children was weaker in social democratic welfare states than in other welfare state types, while Avendano et al. (2009) found that the impact of education on age-related health deterioration among older people was smaller (in fact non-existent) in Nordic countries than in Western and Southern Europe. To the extent that the Nordic countries have more generous and redistributive welfare states than the European average, these results can be interpreted as supporting the notion that especially vulnerable groups benefit from redistributive social policies (cf. Lundberg et al. 2015).

The implications of this thesis for the debate on why (or if) the Nordic welfare states do not have the smallest health inequalities, and in extension for cross-country comparative health research in general, would then be twofold. First, the Nordic countries are not the only ones with redistributive social policies – for instance, minimum pensions are just as generous in the Netherlands, Belgium, France and Austria, and many countries share the comprehensive school systems and expanded higher education of the Nordic countries – and if these countries, with equally redistributive policies, have health inequalities comparable to those of the Nordic countries, this would be in line with, not invalidate, the prediction that redistributive policies are associated with reduced health inequalities. Second, the importance of social policies for health is greatest for vulnerable groups who are uniquely dependent on redistributive policies for their
circumstances and life chances (cf. Bambra 2012). As stated, most comparative research on health inequalities have been done on the full adult population, but these studies by necessity include many individuals who are only to a minor extent dependent on support from social policies; these individuals are rather healthy to begin with, and can independently generate most of their required resources. The structure of social policies is thus less important to them, and redistributive policies are less likely to have a strong effect. Health is a multifactorial phenomenon, with complex causes on many levels interacting to produce a certain outcome. To the extent that resources impact on health, social policies will unlikely have a marked effect if they provide only a negligible share of the resources of individuals, and the effect that it does have is likely to be diluted or even counteracted within the stream of other causal factors. Naturally, innumerable complex and potentially counteracting factors are also in play when it comes to the health of vulnerable groups, but since these groups are so heavily dependent on support from social policies, the effect of the policies will nevertheless be more easily discernable, or at least this is what is implied by this thesis.

Related to this, a further implication of the argument presented in this thesis concerns the operationalization of welfare state effort. Operationalizing social policy as specific policies rather than as country clusters has the benefit of, at least in principle, enabling analysis of the effects of policies over time as well as across countries, and also of analyzing differences within countries. Geographical clusters by definition do not change over time, and welfare regimes are in practice conceptualised as time-constant. Analysis of specific policies offers more flexibility in this regard, as with adequate available data we can analyse the effect of changes in policies within countries, as well as differences in policies between them (cf. Fairbrother 2014). In some cases, social policies also differ across regions within countries, thus offering another level of analysis. Although these two methodological approaches were not employed in this thesis, they are consistent with the conceptual framework developed in section 3 and with the overall approach of the thesis, and they offer important opportunities for gathering new data on which the theory can be tested (cf. King et al. 1994). The implication of this would be that comparative researchers should aim to develop and test theories of specific policies, so as to increase flexibility and leverage in terms of research design. However, it should be stressed that these designs are associated with pitfalls and problems of their own (Hall 2003; De Dekken and Kittel 2008).

A further implication of the thesis that deserves to be highlighted but has so far not been discussed concerns spillover effects, or externalities, of social policies. A social policy has a spillover effect to the extent that the policy has (usually unintended from the perspective of policymaking) consequences for individuals
who are not the targeted or direct beneficiaries of the policy (see Baranowska and Högberg (2018) for an extended discussion of spillover effects and social policy analysis). Spillover effects were at the center of paper III and, especially, paper IV. As discussed in paper IV, the idea of spillover effects is not new (Sjöberg 2010; Chung and Mau 2014; Seligman et al. 2013; the idea is also related to the economic concept of externalities), but systematic theorizing as well as empirical tests of the idea are still rare.

If spillover effects are a widespread phenomenon – as papers III and IV suggest that they might be – then this has at least two implications for social policy research, one technical and one more theoretical. Technically, spillover effects implies that key assumptions underlying most quantitative analysis of, for instance, policy effects, are more frequently violated than is sometimes acknowledged. The independence of units’ assumption means that the effect of a variable on one unit, such as an individual, does not depend on its effect on another unit (e.g. Holland 1986; Rubin 2005). Furthermore, only those units that are recorded as being affected by a variable (i.e. as belonging to the treatment group) in the data and statistical model will contribute to the effect estimate for that variable (“treatment”). If spillover effects are present, these assumptions can be violated. For instance, if unemployment benefits have effects on others than the direct recipients of the benefits (Sjöberg 2010), or if the effects of unemployment benefits on the unemployed “spill over” to individuals who are not in unemployment, a typical regression model, in which only those coded as receiving unemployment benefits contribute to the effect estimate, can be misspecified.

Theoretically, spillover effects implies that the analysis of social policy should incorporate these types of effects into existing frameworks, and directly strive to investigate the existence and extent of such effects. This can potentially open up new domains for social policy research, both in terms of the range of empirical outcomes and observable implications that can be investigated, and in terms of theoretical development regarding the social processes at work.

The idea of spillover effects, moreover, has implications for the actual making of social policy, not merely for policy analysis. If some policies have valuable spillover effects, or positive externalities in economic jargon, then much analysis of those policies will underestimate their (potential) positive effects, meaning that policy-making as well as public debate regarding those types of policies will be based on partly false premises. Policy implications, however, are the topic for the next and penultimate section.
7.4 Implications for social policy

The key theoretical arguments of this thesis are that inequalities in health and wellbeing to a large extent arise due to unequal distribution of resources; that vulnerable social groups therefore are at risk of poorer health due to their poor resource endowments; and that social policies can mitigate these risks by redistributing resources to vulnerable groups. From these general arguments, and from the results in the included papers, conclusions concerning policy and health inequalities can be drawn on two levels: regarding the specific policies studied, and regarding the overall approach to social policy. Conclusions concerning the specific policies have already been discussed in section 6 and the respective papers, and need not be repeated here.

Regarding the policy implications for the overall approach to social policy and inequalities in health, the conclusions are unavoidably more speculative, and cannot be directly founded on empirical results in the respective papers since these dealt with more limited problems. Instead, I will take as point of departure the resource-approach to health inequalities (as described in section 3.2), draw the theoretical policy implications of this approach, and relate these to different conceptions of social policy and the role of the welfare state. The basic argument of the resource-approach to health inequalities is that individuals use flexible resources in various domains and situations to achieve better health and higher wellbeing. As long as these resources are unequally distributed, they will generate an unequal distribution of health and wellbeing, and as long as vulnerable groups have less resources than others at their disposal, they will be at risk of having poorer health and lower wellbeing (Phelan et al. 2010). Kawachi et al. (2002: 648) even goes so far as to speculate that “health inequalities [are] a “necessary” and inevitable consequence of maintaining a market economy” (which, read as a plea for fundamental social transformation, might seem as a radical claim, were it not for the fact that it is probably not radical enough; it does not take inequalities of resources generated in households, nor health selection, into account).

The implication of this basic argument of the resource-approach would be to aim at resource distribution, that is, to structure social policies in order to allocate the kind of resources that can be used to attain better health more broadly and equally across the population. Importantly, this is a question of institutional design just as much as of the sheer size of the redistributive cake (Esping-Andersen 1999; Palme 2006). In the context of this thesis, it would entail that social policy should aim to disrupt or weaken the link between vulnerable social positions and resources. This implication is not altogether unique to the resource-approach to health inequalities, and has parallels in the social determinants of health-framework, with its emphasis on the “causes of the causes” (Marmot 2018). Narrow interventions, focusing directly on proximate causes of poor
health and wellbeing (such as sedentary lifestyles), might be beneficial on average, but are unlikely to substantially correct inequalities as long as underlying resource distributions are left untouched (Phelan et al. 2010). Accordingly, Vallgårda (2010: 496) characterizes narrow interventions as a “high-risk strategy” that can “potentially become a never-ending story as no efforts are directed towards preventing people from ending up in the few-resources category”.

Following Phelan et al. (2010; also Diez Roux 2012), a second policy implication would be to design policies and interventions so that the importance of the initial resource endowments of individuals for the impact of the policy is minimized, that is, so that the effectiveness of the policy is not dependent on already existing resources. In more colloquial terms, one can say that policies should make sure that resource-rich individuals do not get more “bang for the buck” of the policies in terms of health. In this way, policies would not exacerbate an existing unequal allocation of resources. An example might clarify the point. In the context of this thesis, this second implication would imply that educational systems are designed so that the importance of existing inequalities in resources for progress through the educational system is minimized. Educational systems with few selections points, and where selections points are located in higher ages, give less room for resource-rich individuals (students and parents) to act strategically, and generous second chance opportunities and generous supply of education can minimize the importance of grades or other access criteria based on previous academic performance. Likewise, public care policies can strive to ensure that care is given strictly on the basis of need and not informational advantages (such as pressure from relatives), income or ingrained gender norms (cf. Reibling and Wendt 2011). This second implication can be related to Amartya Sen’s notion of conversion factors (Sen 1992). Conversion factors refer to the ability of individuals to transform resources of various kinds into functionings, or simply put, into outcomes that the individual has reasons to value (such as health and wellbeing). The same set of resources can have different consequences in terms of achieved functionings (such as health) depending on the conversion factors of individuals. In many situations, resources begets resources, such that resource-strong individuals have a greater ability to transform certain resources into, for instance, health, in which case small initial advantages, through various self-reinforcing feedback loops, are translated into large inequalities over the life-course (Merton 1968).

Relating these two implications to the conceptual model discussed in section 3.5, one might say that the first implication (breaking the link between vulnerable social positions and resources) refer to the quantity of resources distributed through arrow C, while the second implication (to minimize the importance of
resource endowments of individuals for the health impact of policies) rather refer to the *kind, type or quality* of resources distributed.\(^{19}\)

How then do these two implications relate to different overall conceptions of social policy and the role of the welfare state? One can here take as point of departure Titmuss’ (1974) two ideal typical, contrasting models of social policy: the residual and the institutional redistributive model.\(^ {20}\) Similar distinctions have been made by other researchers, and the two models share some resemblance with the liberal and social democratic welfare state regimes, respectively (Esping-Andersen 1990). The residual model is characterized by a negative conception of public social responsibility: the public should only temporarily intervene once individual needs cannot be properly met through the market or the family. The scope of social policies is thus limited to well-defined and already manifested social problems, or “social pathologies” (Titmus 1974: 48). The majority of citizens hardly come into contact with social policies through most of their lives, and, while some redistribution invariably takes place, the resource distribution generated in the market and families is to the furthest extent possible left intact. The institutional redistributive model is, conversely, characterized by a more positive conception of public responsibility: social policies are an integrated part in most areas of society, and in all phases of life. Social policies, in this model, are typically comprehensive, encompassing and universal, and they continuously redistribute resources across individuals and life phases. Related to this positive conception of public responsibility is also the idea of prevention: by being universal in scope, and encompass also those not currently in urgent need of assistance, social policies should aim to prevent social problems from materializing (becoming “social pathologies”) in the first place (Titmus 1968).

Both policy implications described above are arguably more in line with the institutional redistributive than with the residual model of social policy. The first implication (breaking the link between vulnerable social positions and resources) can be implemented in both types of social policy models, but more ambitiously so in the redistributive one. The residual model, aimed as it is on confronting specific social problems (such as poor health among vulnerable groups) once they have already manifested themselves, is logically more compatible with narrow

---

\(^{19}\) The two implications of the resource based approach are similar to the perspective of Hu et al. (2017: 2): “there are two ways through which a policy can reduce socioeconomic inequalities in health: (1) the policy has a larger effect on exposed people in lower socioeconomic group, or (2) more people in lower socioeconomic group are exposed to it.”. Number (1) here correspond to *kind, type or quality*, while number (2) rather correspond to *quantity* of resources.

\(^{20}\) Titmuss adds a third model, the industrial achievement-performance model, but this model effectively follows the market-conforming principle underlying the residual model, although with a greater interventionist role for the government.
and specific policy interventions, focusing on *proximate* causes of manifest social problems. However, as argued, it is unlikely that these types of interventions would substantially correct inequalities as long as the underlying resource distribution is intact (Phelan et al. 2010). Going back to Figure 1 (section 3), a residual approach would imply that the arrow emanating from social policy should primarily be directed towards the relationship between resources and health (arrow B), or directly towards health, since poor health is the manifest “pathology” in this context. In other words, a residual approach would imply an emphasis on health care policies.

The more universalistic redistributive model, in contrast, is more compatible with the logic of prevention, a prevention which largely takes place by redistributing resources so that social problems (such as poor health among vulnerable groups) do not materialize in the first place. Redistributive social policies, in this sense, are a form of large-scale preventive intervention: by ensuring that (potentially) vulnerable groups do not suffer a shortage of essential resources, redistribution also prevents vulnerability from taking the form of a manifest social problem (poor health). Again going back to Figure 1, the preventive logic of the redistributive model implies that the arrow emanating from social policy is directed either towards the relationship between social position and resources, or directly to social positions themselves (and modify the social structure directly).21

With regard to the second policy implication – to minimize the importance of the resource endowments of individuals for the health impact of policies – the logic of prevention underlying this implication makes it straightforward to align with the more holistic and universal approach of the redistributive model. From the perspective of the residual model, things look more complex. On the one hand, minimizing the importance of resource endowments for the health impact of policies is a preventive policy *par excellence*, and in that sense partly irreconcilable with the logic of the residual model of social policy, with its insistence on fighting problems only once they have become manifest. On the other hand, and unlike the first implication, this second implication does not necessarily require direct redistribution of resources, but is in principle compatible with a model where existing, more limited policies are rather focused on the kinds of resources where inequalities in conversion factors matter little, or where conversion factors are such that a given resource generates a greater impact for resource poor (vulnerable) individuals. Many concrete policy proposals in line with this second implication are in fact easily attuned to the idea

---

21 “modify the social structure directly” is congenial with the perspective of the welfare state as a “system of stratification” in its own right (Esping Andersen 1990), according to which the welfare state affects the primary distribution of resources by shaping the power balance between parties in the (labour) market and in households (see section 3.4.1).
of “libertarian paternalism” (i.e. policies that steer the choices of citizens while avoiding coercion or taxes) (Thaler and Sunstein 2003).

It should be noted that the residual (negative) model of social policy can be seen as sharing an elective affinity with the negative, medical conception of health, with both drawing a sharp distinction between pathology (disease or social problem), and absence of pathology (health, or a well-functioning market). The institutional redistributive model can on the other hand more easily incorporate an encompassing conception of health and health promotion as a goal for social policy (see section 3.1).

It is notable that of the policies studied in this thesis, the majority can be regarded as universal in scope in the sense that they are not, at least not explicitly, designed to remedy specific social problems in pre-defined vulnerable groups. The exception is age, since some specific needs (care, education) are regarded as age-specific; however, these policies are in general not targeted towards specific groups within those age-segments. The conclusion from this, and from the results presented in respective papers, is that vulnerable groups, as potential sources of social problems, might not necessarily be best helped by social policies directed specifically to them. Rather, at least when it comes to health, it seems as if vulnerable groups can paradoxically gain more from universal policies that in principle can encompass all citizens, not only the vulnerable ones. Such a more encompassing model also has the benefit that the potential for broad public support might be larger when policies benefit a majority of the population (Korpi and Palme 1998). The politics of the welfare state is, however, beyond the scope of this thesis.

22 It should be stressed that these policy implications do not preclude more support for especially vulnerable groups (e.g. the functionally impaired), since universalism and redistribution can be aligned with the principle of support in proportion to need. Accordingly, more recent research on social policy and health inequalities have formulated principles of “multilayered” (Lundberg et al. 2015) or “proportional” (Marmot 2010) universalism, where the welfare state effort is universal in scope, but the intensity is greatest at the most marginal or disadvantaged population segments (see also Skocpol 1991). Thus, the choice between universalism or directed support is not necessarily a matter of either/or.
Acknowledgements

Främst vill jag naturligtvis tacka mina fantastiska handledare, Anna och Mattias: drivna, engagerade, stöttande. Inte minst har jag uppskattat er framsynthet och förmåga att lyfta blicken. Jag har lärt mig otroligt mycket under de här åren tack vare er. Det är ett privilegium att få fortsätta arbeta med er även efter disputationen!


Mille! Jag lovade ju att tacka dig i avhandlingen om du hjälpte mig med språkgranskning av en artikel. Så tack! Alla andra vänner (ni vet vilka ni är); ni är toppen på alla sätt och vis, även om ni kanske inte hade så mycket med just den här avhandlingen att göra.


Slutligen, Ida och björnungen – ni är det bästa som hänt och som ännu inte hänt.
References


Cleary PD (1997) Subjective and Objective Measures of Health: Which is Better When? Journal of Health Services Research & Policy, 2, 1, 3-4


Lieberson S (1991) Small 'N's' and Big Conclusions: An Examination of the Reasoning in Comparative Studies Based on a Small Number of Cases, *Social Forces*, 70, 2, 307-320


Misselbrook D (2014) W is for Wellbeing and the WHO definition of health. *British Journal of General Practice*, 64, 628, 582


Otto A (2018) Social expenditure, social rights, and benefit receipt as indicators of welfare state generosity: Three peas in a pod, or a different kettle of fish altogether?. International Journal of Sociology and Social Policy, 38, 9/10, 851-867


Smith A (1776/1976) *An inquiry into the nature and causes of the wealth of nations*. Oxford: Clarendon


West P (1991) Rethinking the health selection explanation for health inequalities. *Social Science and Medicine, 32*, 4, 373-84


Vallgårda S (2010) Tackling social inequalities in health in the Nordic countries: targeting a residuum or the whole population? *Journal of Epidemiology and Community Health, 64*, 495-496


Appendix

Science as well as everyday reasoning is deeply ingrained in the language of causality. The enlightenment philosopher David Hume even went so far as to state that “all arguments concerning existence are based on the relation of cause and effect” (Hume 1777/2018: 36). While this might sound rather drastic, the nature of causality is no doubt fundamental for social science, and for quantitative as well as qualitative traditions (Palinkas 2014). Given the ubiquity of causal terms in published research – effects, consequences, influence, determinants and so on – it is indeed somewhat odd that more effort is not invested into discussing or clarifying what is meant by causal statements in social science. So, to paraphrase Raymond Carver, what do we talk about when we talk about causality?

This discussion should not, unless explicitly stated so, primarily be read as a discussion of the merits or limitations of this particular thesis. It is, rather, a way to flesh out my own philosophical position on the matter, and included as an appendix since these types of issues are rarely given a place in empirical research. The discussion is a critique in the classical sense of the word, that is to say as an investigation of concepts and their roots and conditions, and the idea is to discuss what conception of causality that is implied by different approaches to social science and methodology, and further, what kind of underlying ontology that these different conceptions reveal.

A1. Counterfactuals and experiments as the basis of causality

The conception that lies beneath the dominant approach to causality in quantitative social science is basically a direct importation of the experimental method of the natural sciences, especially medicine and the randomized controlled trials predominating there. On the basis of this experimental ideal, a “potential outcome” or “counterfactual” approach to causality has been developed in several fields, especially statistics (Holland 1986; Rubin 2005; Morgan and Winship 2007; Gangl 2010; Imbens and Rubin 2015). Counterfactual should here be interpreted literally: two (or possibly an infinite number of) hypothetical worlds are posited, one in which B occurs and one (a counterfactual world) in which it does not. All units, such as individuals, have a potential outcome in all of these worlds, but only one outcome, one world, is actually observed. The definition of causality is as counterfactual dependence: would A have happened were it not for B? In other words, is the existence of A dependent or conditional on B?
The core of this counterfactual approach causality is that a cause, or a “treatment”, can only be identified if this cause is isolated from all other putative causes, and manipulated so as to induce a change in the cause. Only that which it is meaningful to consider as a treatment in a hypothetical (not necessarily realistic or ethical) experiment can be a cause. Causality is then identified by the change in the outcome that is the result of the cause being manipulated in accordance with the treatment, while all else is held constant through randomization (Illari and Russo 2014). Or, in technical terms, randomization ensures that potential outcomes are independent of treatment status.

The counterfactual approach to causality has three notable features. First, it is, evidently, heavily centered on methods, or more precisely, derived from the ideal controlled experimental situation: the very definition of causality requires that the cause can be manipulated (“No causation without manipulation” (Holland 1986: 959. See also Rubin 1986: 962; Heckman 2005; Freedman 2006). Second, it is clearly empiricist in its outlook. Causality is inferred from observation and observation alone; hence the great emphasis on method. As stated by Kincaid (2011), randomized trials and experiments are designed precisely to allow researchers to establish causality without having to understand the causal process at work. A third notable feature is that if causes, by definition, are treatments that can be manipulated, a cause in social science must also be in a sense external to persons. Causes are “objectified”, or “reified” in Marxist parlance, and causality is rendered a property of objects, not persons (implying “third person explanations”, in the words of Martin 2011).

A2. Social action and a sociological conception of causality

The counterfactual approach has its roots in the natural sciences, and its dominance in social science can be taken as an indication of the superior status of this field. However, there are older theoretical traditions within social science, especially sociology, that take another perspective on causality, one that is more attuned to the subject matter of the social world. One such tradition has a prominent spokesperson in Max Weber. Weber famously defined sociology as ”a science which attempts the interpretive understanding of social action in order thereby to arrive at a causal explanation of its course and effects” (Weber 1922/1964: 88). This is in sharp contrast to the natural sciences, and the conception of causality applicable there: “The natural sciences on the other hand cannot [understand the action of individuals], being limited to the formulation of causal uniformities in objects and events” (Weber 1922/1964: 88). Weber is often primarily understood as representative of “Verstehen”-sociology, where the emphasis is on understanding and interpreting the meaning of action. In this context, I would rather put the emphasis on the “social action”-part of “understanding social action”. Causality is here understood as something
internal to persons, and regarded as a property of individuals, not objects or treatments. This Weberian tradition has a parallel in, or at least an elective affinity with, more contemporary alternatives to the counterfactual approach in social science. For instance, the so called “analytical” tradition in sociology has developed mechanism-based causal explanations (e.g. Hedström and Ylikoski 2010), while John Goldthorpe, James Coleman and others have argued that causality should best be seen as generative processes of individual action and interaction (Goldthorpe 2007; 2017; Coleman 1990; see also Martin 2011).

Compared to the counterfactual approach, this second tradition constitutes a less unified and coherent, and clearly less formalized, approach to causality. The unifying idea is that a proper causal explanation of a social phenomenon entails that the processes or mechanisms through which the proposed cause give rise to the phenomenon in question are explicated (Hedström and Ylikoski 2010). The focus is on the causal process rather than the cause and/or effect (cf. Hall 2004). Causality, on this account, implies a process of repeated and recurrent action by purposeful individuals and other social actors (e.g. emergent properties resulting from individual action, such as organisations) bounded in space and time. Since what social science typically explains are social regularities, action, moreover, should be generalizable and intelligible, in the sense that individuals have, or think that they have, good reasons for acting as they do (e.g. a bounded and subjective rationality) (Boudon 2003). Completely irrational or random action would, by definition, seldom give rise to social regularities and therefore not become the object of social explanation. A reasonably rational actor can be regarded as an ideal-type, the most intelligible and coherent of actors, and thus as a starting point for most social theorizing (Weber 1922/1964). Weber should here be quoted in full:

“A correct causal interpretation of typical action means that the process which is claimed to be typical is shown to be both adequately grasped on the level of meaning and at the same time the interpretation is to some degree causally adequate. If adequacy in respect to meaning is lacking, then no matter how high the degree of uniformity and how precisely its probability can be numerically determined, it is still an incomprehensible statistical probability ... Statistical uniformities constitute understandable types of action in the sense of this discussion, and thus constitute “sociological generalisations,” only when they can be regarded as manifestations of the understandable subjective meaning of a course of social action.” (Weber 1922/1964: 99)

A3 Consciousness, intention and social ontology
While the conception of causality as grounded in social action does not necessarily contradict the counterfactual approach, and may even be regarded as
complementary (Hedström and Ylikoski 2010), a certain tension seems to exist between the two. The first takes causality to be primarily a property of subjects (intentionally acting individuals), while the latter takes it to be a property of objects (treatments being manipulated) (Holland 1986). I argue that one absolutely essential advantage of an “action-based” over the counterfactual approach in social science is that the former has a solid base in social ontology, while the latter is thorn between its concepts and formal methods, borrowed from the natural sciences, and its subject matter, intentional social action.

Counterfactualism implicitly views causality as mechanical, subjectless operations of external treatments, and in the natural world of dead matter, mechanical causality is certainly all there is. However, this approach is not obvious, and sometimes outright problematic, when we enter into a social world constructed by acting humans (Marini and Singer 1988). A distinctive – perhaps the distinctive – feature a human beings is the possession of mind and consciousness, and with mind follows intentionality (Searle 2002; Dunbar 2014). Consciousness, although no doubt a product of biological and neurological processes, is non-reducible to its constituent parts, and therefore has a *sui generis* ontological status. The distinctive characteristic of mind and consciousness, which makes it ontologically non-reducible to matter, is that consciousness is by definition first person subjective: its very existence is the phenomenological experience, and as soon as a unit ceases to experience anything, consciousness ceases to exist. One can try to describe consciousness and experience through objective means such as language, but these descriptions are not themselves consciousness and do not capture the phenomenal properties of consciousness (Searle 2002; Feser 2004; Jacquette 2013; Martin 2011).

Ludwig von Mises, 70 years ago, cogently expressed the consequences of this ontological divide for different conceptions of causality:

“We may fairly assume or believe that [human actions] are absolutely dependent upon and conditioned by their causes. But as long as we do not know how external facts produce in a human mind definite thoughts and volitions resulting in concrete acts, we have to face an insurmountable methodological dualism [...] Reason and experience show us two separate realms: the external world of physical, chemical, and physiological phenomena and the internal world of thought, feeling, valuation, and purposeful action. No bridge connects—as far as we can see today—these two spheres.” (von Mises 1949/2007: 18).

The simple existence of consciousness thus has far-reaching consequences for the notion of causality in the human or social world. In the light of conscious actors, teleology and final causes, long despised as metaphysical by modern science, takes on a new meaning and significance (Seligman et al. 2013; cf. Aristotle 1970:
Since humans are equipped with consciousness, and because human action is intentional, social scientific conceptions of causality must at least allow for – or rather, I would argue, take as point of departure – agency, and, more specifically, intentional action (Marini and Singer 1988). Explanation of phenomena generated by intentional action, not merely mechanical laws or behavior, brings back final causes as the essential part of causal accounts. Hence, in the words of Coleman (1986: 1312) “Actions are ‘caused’ by their (anticipated) consequences”.

However, when causality is derived from manipulation of external causes or treatments (counterfactualism), a suspension of intention and teleology, and the misrecognition of the unique causal properties of conscious entities, tends to follow. In deriving the very definition of causality from the experimental method, the counterfactual approach, when applied to the social world, puts the cart before the horse, as it were, and conflates epistemology with ontology by proposing that method dictates the nature of (social) reality (cf. Sobel 2005). A causal explanation needs, if not instead of a treatment being manipulated, then at least in addition to this, to posit an intention directing the action producing the “effect”. Such explanations will necessarily be teleological but only “because nature contains purposeful or goal-oriented organisms, not because nature itself has purposes or goals” (Seligman et al. 2013: 136). Unlike argued by behaviorism and similar tenets, human action is not blind response to stimuli (von Mises 1949/2007). While objects and conditions external to persons (“stimuli” for behaviorism, “treatments” for experimentalism and counterfactualism) certainly can elicit responses in persons, these responses are not ontologically reducible to the stimuli or treatments, and the responses are not epistemologically open to a complete description by the tools of natural science (cf. Martin 2011).

One might object that this whole discussion is primarily a matter of semantics, and that different traditions simply put similar labels on different phenomena. The counterfactual approach emphasizes measurement of causes and effects, while the action-based approach takes causality as explanation of the causal process as point of departure. While I agree that some of the disagreement can be solved through semantic means – let us, for instance, define “causal effects” on the basis of counterfactuals, and use “causal explanation” for accounts of how these effects comes about through action – this does not bridge the ontological divide. It would, for instance, seem to presuppose that methodology and theory be unrelated (Abbott 1998). In fact, the counterfactual (or statistical) approach to causality seems to be exceptional in defining causality without reference to explanation (Brady 2010). Few researchers would disagree that statistics in itself can never be sufficient for a causal explanation of social phenomena, but then one would like to ask why causality, and a fortiori, causal explanation, is equated with and derived from methodology (i.e. randomization and experiments). Moreover, if one, with Heckman (2005), agree that causality is never a property of a set of
data and a method alone, and that theory and substantive knowledge are equally fundamental, then the question arises why only research explicitly based on the counterfactual approach and its attendant methodologies deserves the honorary title “causal literature” (Imbens 2010: 403), regardless its further theoretical and substantive merits. The strongest link in a chain of reasoning does not by itself, independent of of the strength of the other links, generate valid conclusions (Cartwright 2007).

A more promising venue than a strict adherence to an experimentalist ideal for explanation in social science, I would argue, is to take a pluralistic approach to causality (Illari and Russo 2014). With Hall (2004), we can distinguish between causality as (counterfactual) dependence and causality as production. Dependence is closely related to the counterfactual approach, and states that an event A is a cause of event B if B would not occur were it not for A (the existence of B depends on A happening). Production is rather related to the mechanism- or action-based traditions, and states that A is a cause of B to the extent that A generates or “brings about” B (Hall 2004). A consequence of a pluralistic conception of causality would be, firstly, a smoother integration of methodology and theory (and, a fortiori, ontology), and secondly, that experimental and quasi-experimental methods cannot make any claim of being a “gold standard” for establishing causality, or rather that no family of methods can legitimately make this claim. Experimental methods do have substantial advantages when it comes to detecting counterfactual dependence, but are limited as regards the productive dimension.23 This would also imply that qualitative methods have an indispensable role to play in causal explanation, and that the dichotomous division between qualitative research focused on subjective experiences and quantitative research focused on causality is a false one (cf. Tacq 2011).

23 I would like to stress that I by no means object to neither experiments nor quasi-experimental “causal models” as such – these methods have been hugely innovative in many areas, and done more than perhaps any other approach to push the frontiers of social science over the last decades – only to the somewhat imperialistic, and ontologically unsubstantiated, ways that these approaches have colonized issues of causality in toto.
Studier i socialt arbete vid Umeå universitet. Avhandlings- och skriftserie.
ISSN 0283-300X


Nr 7 Håkan Larsson & Stefan Morén: Organisationens månskliga insida. Om det sociala arbetets utvecklingsmöjligheter. 1988.

Nr 8 Gunnel Drugge: Som en liten vit ros och så där... 52 patienters upplevelse av sin cancersjukdom och vården omkring den. 1988.


<table>
<thead>
<tr>
<th>Nr</th>
<th>Nr</th>
<th>Nr</th>
<th>Nr</th>
<th>Nr</th>
<th>Nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nr</td>
<td>Autors och Titel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Arne Kristiansen: Fri från narkotika. Om kvinnor och män som har varit narkotikamissbrukare. 1999.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Vasileia Papadaki: Choosing to study social work: Students’ views in Heraklion, Greece. 1999 (lic. uppsats).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Maria Loukaki: Relations among immigrant and indigenous students. The case of an elementary school 2001 (lic. uppsats).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nr</td>
<td>Nr</td>
<td>Nyckelord</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td></td>
<td>Elisabeth Moen: En kvinnas dråp. En kroppslig situationell förståelse. 2006 (lic uppsats).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>Ingegärd Lindsjö Kock: Minnets missiler och sociala salutogena spaljéer. En studie av 83 traumatiserade bosniska män och vad som bidrar till respektive försvårar ett bra liv i exil. 2006 (lic uppsats).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
<td>Lars Nordlander: Mellan kunskap och handling. Om socialsekreteraes kunskapsanvändning i utredningsarbetet. 2006.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nr</td>
<td>Titel</td>
<td>Autør</td>
<td>År</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Fredrik Snellman: ”Gammfolket” – om livserfarenheter och vardagens ålderism.</td>
<td>2009.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>Carina Markström: Vad fattas äldreomsorgen? Problembeskrivningar av äldreomsorg i det offentliga samtalet.</td>
<td>2009. (lic uppsats)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>Joakim Isaksson: Spänningen mellan normalitet och avvikelse – om skolans insatser för elever i behov av särskilt stöd.</td>
<td>2009.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nr</td>
<td>Author</td>
<td>Title</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>--------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>Inger Linblad</td>
<td>Problembilder av barn. Representationer, föreställningar och strategier i Bris stödtelefon under 1996-98. 2012.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>Maria Sjölund</td>
<td>Levd erfarenhet av ålder: Föreställningar om och erfarenheter av att vara och bli äldre. 2012.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>Disa Edvall Malm</td>
<td>Det socio-polisiära handlingsnätet: Om kopplingar mellan polis och socialtjänst kring ungdomars kriminalitet och missbruk. 2012.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>Mozhdeh Nasseh Lotf Abadi</td>
<td>Social Support, Coping, and Self-Esteem in Relation to Psychosocial Factors: A Study of Health Issues and Birth Weight in Young Mothers in Tehran, Iran. 2012.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>Veronica Lövgren</td>
<td>Villkorat vuxenskap – levd erfarenhet av intellektuellt funktionshinder, kön och ålder. 2013.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>Arian Rostami</td>
<td>Marital satisfaction in relation to social support, coping and quality of life in medical staff in Tehran, Iran. 2013.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>Nor Jana Bte Saim</td>
<td>Social support, coping, resilience and mental health in Malaysian unwed young pregnant women and young mothers – Their experiences while living in a shelter home. 2013.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Sara Lilliehorn</td>
<td>Betydelser av bröstcancer i ett livssammanhang. 2013.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>Birgitta Forsberg</td>
<td>Självhjälpsgrupper för personer med långvarig muskulär smärta – Forskning, förekomst och behovet av genusperspektiv. 2014. (lic uppsats)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Nr 85  Maria Fjellfeldt: Choice as Governance in Community Mental Health Services. 2017.


Nr 92  Hans Ek: Psykiatriseringen av skolkaren - BUP och det institutionella omhändertagandet av ungdomar som inte går till skolan. 2018.


<table>
<thead>
<tr>
<th>Nr</th>
<th>Förlag och Titel</th>
<th>Utlaga</th>
<th>Utgivare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ingrid Claezon: Fakta, forskning och föreställningar om fosterbarnsvård.</td>
<td>1981.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Håkan Larsson, Stefan Morén: Mot en teori om organisationer.</td>
<td>1983.</td>
<td></td>
</tr>
</tbody>
</table>


Nr 30 Guðrún Kristinsdóttir: Undersøgelse af børns placeringer i Reykjavik. 1987


Nr 41 Willy Frick: Om analyser av invandring och socialt arbete. 1997.


Nr 57 Maria Fjellfeldt, Urban Markström, Mona Eklund: I valet och kvalet: Implementering av valfrihetssystem inom svensk socialpsykiatri genom exemplet meningsfull sysselsättning. 2014.


Arne Kristiansen: Mellan lek och motstånd - perspektiv på hand (red) ledning i socialt arbete. 1993.


Lena Ström: ”Ska vi ha skalad eller oskalad potatis?” En utvärdering av det Ungdomspolitiska Handlingsprogrammet i Gällivare med fokus på ungdomar, demokrati och inflytande. 1995


Björn Blom: Kurator i primärvård. Utvärdering av kuratorsverksamheten vid Skelleftehamns vårdcentral. 1996.


Lars Dahlgren & Lena Dahlgren: Medlevarskap. En modell i missbruksvården. 1996.


Tommy Andersson: Kunskapsbaserat alkohol-, drog- och brottsförebyggande arbete inom Umeå socialtjänst. 2006.