Non-Market Outcomes of Education
The long-term impact of education on individuals’ social participation and health in Sweden

Annica Brännlund
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II. Erica Nordlander, Mattias Strandh and Annica Brännlund. 2013. “What does class origin and education mean for the capabilities of agency and voice?” British Journal of Sociology of Education, Published online 2 September, DOI:10.1080/01425692.2013.820126.


Abstract

In research, it is typical to analyse and discuss the utility of education in economic terms—specifically the market value of a particular degree or the financial returns associated with additional years in higher education. However, education may also generate outcomes that belong to the non-market sphere, such as open-mindedness, societal cohesion, community involvement, better health, and gender equality; yet these outcomes have received little scholarly attention. The main objective of this thesis, therefore, is to investigate the relationship between education and four non-market outcomes: agency, voice, health behaviour and psychological distress. By utilizing two longitudinal data sets, the Swedish Survey of Living Conditions and the Northern Swedish Cohort, it is possible to assess the long-term effects of education on each of these four non-market outcomes.

Results clearly demonstrate that education has a critical impact on each of the outcomes of interest. Having a higher education—and in particular a university degree—enhances individuals’ agency and voice, reduces psychological distress, and improves individuals’ health behaviour. Further, results show that different academic subjects generate field-specific resources. In contrast to a market perspective, where the value of the specific field of study is assessed only in economic terms, results indicate that fields that are commonly viewed as having low market value may actually yield non-economic rewards that benefit individuals in critically important ways.

Analyses also show that individual and social factors shape the extent to which education leads to positive outcomes. In terms of agency and voice, results indicate that education can compensate for social differences. Among those with a working class background, earning a university degree contributes to increasing levels of agency and voice, while no significant effects of education exist for those with a white-collar background. Results also demonstrate that the impact of education on psychological well-being differs for men and women. For men, labour market resources (i.e., being employed) was important for reducing psychological distress, while for women social resources (i.e., having a partner) was more important.

Due to its use of high quality, longitudinal data, this thesis makes a significant contribution to the scholarly literature and to what we know about the impact of education attainment. A limitation of cross-sectional analyses is that it is difficult to separate causal effects from selection effects. By adopting a longitudinal approach, it is possible to control for earlier (baseline) circumstances and therefore assess the causal impact of education on individual outcomes. This strategy yields robust results that make clear the long-term effects of educational attainment on individuals.
Acknowledgements

Cinderella wondered what it would be like to attend the Ball. Almost four years ago, I asked myself what it would be like to be a doctoral student: Oh, well. What’s a doctoral education in the Department of Sociology at Umeå University? After all, I suppose it would be frightfully dull, and-and-and boring, and-and completely... completely wonderful. And so it has been. Frightfully dull when papers were not accepted, and boring to fill in the “individual study plan”. But most of the time, it has been completely, completely wonderful. I have not studied the market outcomes associated with a PhD in Sociology, but I know from “previous research” that obtaining this degree should enhance my competitiveness on the labour market. However, even more importantly, my degree will yield non-economic rewards and benefit me in ways that, until this project, had not been quantified. Thus, I am sure that these last years will, in many different ways, affect the rest of my life.

Cinderella had a fairy godmother; I had supervisors: Mattias Strand and Madelene Nordlund. Thank you Mattias for teaching me how to tell a story and always being enthusiastic and patient. Thank you most of all for showing me hospitality and care, above and beyond your role as supervisor. Madelene, you are not only a supervisor but also a good friend. Thank you for answering ALL of my questions, being my confidant, telling me not to worry, and teaching me that good work takes time and Amarone. Mattias and Madelene: your support has been invaluable.

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I Introduction

Nothing could be more crucial to democracy than the education of its citizens. Through primary and secondary education, young citizens form, at a crucial age, habits of mind that will be with them all through their lives. They learn to ask questions or not to ask them; to take what they hear at face value or to probe more deeply; to imagine the situation of a person different from themselves or to see a new person as a mere threat to the success of their own projects; to think of themselves as members of a homogeneous group or as members of a nation, and a world, made up of many people and groups, all of whom deserve respect and understanding. (Nussbaum 2006 p. 387)

This quote of Martha Nussbaum highlights some important but often neglected, outcomes of education that are not directly related to factors such as economic growth or the student’s subsequent progression in the labour market. Instead Nussbaum emphasises the non-market outcomes of education, arguing that education is crucial for the development of democratic citizenship.

The purpose of this thesis is to provide new insights into the non-market outcomes of education by exploring the relationship between education and various non-market educational outcomes. This is done via four separate studies that share the following features; an emphasis on the relationship between education and the non-market sphere; a Swedish setting; and last but perhaps most important, a longitudinal design based on micro-level data. To be more precise, the aim of the work presented herein is to investigate the long-term impact of education on individuals’ social participation and health in Sweden.
II Disposition

Chapter III introduces education as an idea. This is followed by a discussion of the domains (market and non-market) and levels (macro and micro) that are affected by educational outcomes, along with a broad discussion concerning the different aspects of educational outcomes. The intention here is to provide the reader with a better understanding of the ongoing debate within educational research, and to illustrate the broader context surrounding this thesis.

Chapter IV states the aim of the thesis and presents the research questions it addresses. Chapter V opens with an overview of the theories applied in the articles, i.e. human capital theory and the capability approach. The justifications for using these theories are discussed along with the connections and contrasts between them. The chapter concludes by showing how the two theories can be used together to better understand and evaluate the individual non-market outcomes of education.

Chapter VI introduces the data and the designs of the studies. This is a central chapter because it is argued that the use of longitudinal data made it possible to design studies that minimize the impact of selection effects. This is followed by a summary of the four articles in chapter VII. Finally, chapter VIII discusses the main findings of the studies and the contributions this thesis makes to the research field as a whole.

III Education and educational outcomes

There are many different forms of education and also several different understandings and expectations concerning the value of different educational outcomes. Since the intent of this chapter is to situate the thesis within its research field, it opens with a broad discussion about education as such. This is followed by an outline of the spheres and levels at which educational outcomes can be found, i.e. the market and the non–market spheres as well as the micro and macro levels. The section concludes by describing the focus of the thesis.
Formal education and non-market outcomes

Several forms of education have been distinguished in the literature including informal education at home or in the workplace, on-the-job training, second chance education, specialised vocational education, and formal education at the primary, secondary, and higher levels. While all forms of education can and often do have profound effects on individuals' opportunities and future prospects, this thesis deals primarily with formal education.

Most people regard formal education as an entitlement that applies to all individuals regardless of ethnicity, gender, religion, or social status. It is usually seen as a social right that is extremely important for the individual and for society at large. The attention given to education is mirrored in the scientific and public debate, both of which regularly focus on educational expenditures, values, outcomes, fairness, and quality (see for instance Bourdieu and Passeron 1977; Hall 2012; Hällsten 2010; Van der Velden and Wolbers 2007). This comes as no surprise since many consider education to be one of the cornerstones of the welfare state. Education can be seen as a process whose goal is to develop knowledge and skills via systematic training. It enables the individual to obtain abilities that are in demand in the labour market while also giving them an understanding of the cultural concepts and the abilities required to function in the society that she or he is living in. If education is identified as defined in this way, one can argue that its purpose is to provide the individual with skills and capabilities that are valuable in relation to the economy and market and also in the non-market sphere.

Market outcomes of education on the macro and micro level

Numerous economic and sociological studies on educational outcomes have been published. Most of these works have dealt with outcomes that relate to the market and other economic issues on either the micro- or macro-level. Figure 1 illustrates the different arenas in which educational outcomes may be evaluated (i.e. market and non-market) as well as the levels at which analyses may be conducted (i.e. macro and micro).

On the macro level, it has been argued that an educated labour force is essential for economic growth and increased market competitiveness (see e.g. Ashton and Green 1996; Jorgenson and Fraumeni 1992; Robeyns 2006). The positive effect of education on economic development is assumed to
exist on the understanding that education generates knowledge, cognitive skills and creativity, competences that are embodied in the ability to produce labour. Education thus creates a more productive, competitive and innovative workforce that can generate economic value, enabling development and productivity growth (Becker 1993).

Figure 1. Arenas of macro- and micro-level educational returns
This thesis focuses on the areas shown in the square with the bolded border.

Many studies have been conducted with the aim of identifying the micro-level market outcomes of education. By using long-term longitudinal approaches, labour market research has demonstrated that highly educated individuals have better income development, lower rates of unemployment, a more stable labour market position and more secure career development than their less highly educated counterparts. In addition, due to the strong connection between an individual’s education and their subsequent career in the labour market, higher levels of education correlate strongly with individual earnings and therefore have profound effects on the individual’s
ability to protect themselves and their family members from poverty (see for instance Bynner et al. 2003; Danziger and Ratner 2010; Dickson and Harmon 2011; Häkönen and Bihagen 2011; Nordlund, Stehlik and Strandh 2012). These results suggest that longitudinal studies could be equally useful and informative in other areas of research.

In recent years, these conclusions concerning the value of educational outcomes in relation to the market have been challenged. One question that has been raised is whether an investment in education that would historically have been sufficient to secure a well-paid career remains sufficient in the modern environment (Brown, Lauder and Ashton 2010; Collins 2002). Following the economic recession in the 1980s, during which unemployment increased in several parts of Europe, we today find ourselves in a situation where a growing number of highly educated individuals are experiencing an uncertain economic and labour market situation (Tåhlin 2007; Åberg 2002; Åberg 2003). Although there is a rather strong consensus within research regarding the positive connection between higher levels of education and better market outcomes on the individual level, the challenges of unemployment together with concerns about global competition in higher education (Marginson 2006) have prompted an intensified discussion about the value of education (Alvesson 1999; Collins 2002; Illich 1971; Wielers and Glebbeek 1995). If education, credentials, jobs, and income are regarded as positional goods whose value rests on the individual’s position in relation to others in society (Adnett and Davies 2002; Hollis 1982), the growing numbers of highly educated employees imply a degree of over-education (Korpi and Tåhlin 2009).

**Non-market outcomes on the macro and micro level**

The outcomes of education are often discussed in relation to the economy and market. However, estimates of educational returns have also been discussed in context of the non-market sphere, albeit less often. At the macro level, evidence supporting a positive relationship between education and societal cohesion and community involvement has been presented (e.g. Bynner et al. 2003; Moore 1990; Preston and Green 2003). The non-market outcomes of education have also been discussed in relation to the democratising aspect of knowledge. For example, it has been argued that in a well-functioning school environment students learn that there are different views on how to live a good life, they are exposed to different religious beliefs, and they come to recognise that women and men are equally suited to taking care of children and to working outside the home. Education can widen individual’s horizons and thereby encourage them to question the
norms and values of the society in which they live. As a result they recognise that there are different ways of living life and that different people have different preferences in this respect (Robeyns 2006). If enough individuals gain this knowledge it may lead to democratic changes in society.

On the micro level we can initially differentiate between the intrinsic and extrinsic (sometimes referred to as instrumental) outcomes of education (Robeyns 2006). Intrinsic outcomes are outcomes that can be valued per se whereas extrinsic outcomes are outcomes that, directly or indirectly, can be regarded as means. An intrinsic non-market outcome might be something that one values simply for the sake of knowing it, such as an appreciation of opera music or poems for their beauty alone. There are also outcomes that can be considered to be simultaneously intrinsic and extrinsic, such as the ability to read a newspaper, search for information, and communicate with other people. These outcomes include the ability to obtain and comprehend information, which implies that educated individuals should be comparatively well-informed and therefore more reflective when making decisions.

One set of non-market outcomes of education that has received considerable academic attention is individual attitudes and the formation of perspectives. Cross-sectional studies have shown that there is a relationship between an individual’s level of education and their opinions. Moreover, education correlates with a large number of political attitudes. Higher levels of education are, among other things, linked to greater tolerance of others and more liberal views on moral issues. They also weaken religious beliefs and strengthen democratic values (see for instance Hainmueller and Hiscox 2010; Hall, Rodeghier and Useem 1986; Hjerm 2001; Kalmijn and Kraaykamp 2007; Weakliem 2002).

The relationship between education and health has also been examined in some detail. Both cross-sectional and longitudinal studies have shown that higher levels of education correlate positively with health at the individual and family levels (for a review of the field see for instance Babones 2010; Cutler and Lleras-Muney 2006; Johnston 2004; Michalos 2008; Ross and Mirowsky 2010; Ross and Wu 1995; Ross and Wu 1996). Additionally, there is evidence for a positive connection between education and individual health-behaviour (see e.g. Brännlund, Hammarström and Strandh 2013; Cutler and Lleras-Muney 2006; Drieskens et al. 2010; Ross and Wu 1995; Schnohr et al. 2004). There is also evidence that education has an impact on the social sphere. Cross-sectional studies have shown that higher levels of education are associated with stronger and more valuable social networks (Bynner et al. 2003; Moore 1990; Preston and Green 2003). Other studies,
somewhat related to social participation and self-government, have shown that higher levels of education are associated with greater civic knowledge, increased political consciousness, political participation, unwillingness to blindly accept authority, and a stronger motivation to vote (Bobo and Licari 1989; Bynner et al. 2003; Milner 2002; Murray 2009; Weakliem 2002; Verba, Schlozman and Brady 1995).

The interplay between market – non-market and micro - macro

Before going any further, it should be emphasised that although we can distinguish between the market and the non-market spheres and also between the micro- and macro levels in abstract terms, we must take care to avoid treating them as dichotomies. Several studies have demonstrated that there are strong connections between the market and non-market spheres and similarly between macro and micro phenomena and processes (Alexander 1987; Bunge 1997; Fuchs 2001). Nevertheless, for analytical purposes it can be useful to distinguish between market and non-market or micro and macro when discussing the outcomes of education.

It is clear that higher levels of education confer non-market values that are vital for both the individual and society. Additionally, in the same way that the market outcomes of education affect the non-market sphere, the non-market outcomes have repercussions on the market, at both the macro- and micro levels. For example, if individuals become healthier they will be more productive, the costs of having employees on sick leave will drop, and state expenditures on health care will decrease. Moreover, non-market outcomes such as better health or a greater capability of voice are not positional goods. One individual’s better health does not come at the cost of another’s and neither does a stronger voice weaken anybody else’s. These things are not zero-sum games where each individual’s gains or losses are exactly balanced. On the contrary, everyone can benefit.

Four micro-level non-market outcomes of education

There are several aspects of the non-market outcomes of education that merit detailed investigation. This thesis focuses on four such aspects: agency, voice, health behaviour and psychological distress. The decision to consider these four aspects was made due to practical considerations and a desire to address some gaps in the existing literature. The studies included in this
work focused on the extrinsic non-market outcomes of education at the micro level. Little is known about the long-term relationships between education on the one hand and agency and voice on the other, and the same is true for the well-established connection between higher levels of education and improved health. It was therefore anticipated that the studies presented herein would provide a range of new insights into these fields of research.

Studies I and II focus on agency and voice, concepts that are strongly associated with self-governance and social participation. Previous cross-sectional studies have examined agency and voice within educational research student movements and the right to participate in decision-making processes within the educational system (e.g. Mitra 2004). In contrast, this thesis examines the impact of education on agency and voice in the context of the development of democratic values and student empowerment in both the school environment and society in general. Both agency (defined as the individual’s ability to manage his or her own life) and voice (the ability to take part in discussions and express an opinion) are indicators of vital non-market outcomes that are important for both the individual and for society.

Studies III and IV focus on education in relation to health-behaviour and psychological distress. Education has a profound impact on individual health, and disparities in health between individuals with different levels of education are well documented (see e.g. Babones 2010; Cutler and Lleras-Muney 2006; Johnston 2004; Murasko 2007; Ross and Wu 1995). Good health is an unquestionably important outcome of education, and being healthy has been put forward as a central capability by authors such as Martha Nussbaum (2000 p. 78) who included it on her list of “central human functional capabilities”. The studies presented herein aimed to determine whether the long-term relationship between education and health could be understood in terms of the social and labour market resources that are generated through education.
IV Aim of the thesis

While there is some knowledge concerning the non-market outcomes of education, there is a general lack of studies that can provide insights into these educational outcomes from a long-term perspective. This may be due to a lack of longitudinal data: estimates of educational outcomes depend on the data sets used. The four studies included in this thesis all make use of longitudinal data, which has several advantages. When earlier conditions can be included, such as prior health conditions or social participation capabilities, the individual can serve as its own control and the educational effect will be less intertwined with selection effects. Longitudinal data also provide information about changes in an individual’s circumstances, and make it possible to separate aging effects (changes in individual circumstances due to aging) from individual effects (pre-existing differences between individuals, i.e. baseline differences). These effects cannot be controlled for when using a cross-sectional study design.

The main objective of this thesis is to investigate a number of non-market outcomes of education. The aim was met by performing four studies in order to answer the questions listed below:

- Does formal education expand the individual’s self-governance capabilities?
- How do education and class origin interact in the shaping of the individual’s capacity for social participation?
- How does education affect individual health behaviour from a long-term perspective?
- What is the nature of the long-term relationship between education and psychological distress?
V Extended theoretical framing

Two theoretical perspectives were used in this work to investigate the non-market outcomes of education and explain its transformation into individual resources and abilities: human capital theory and the capability approach. In this chapter a general description of the core features of the two theories will be presented, followed by a discussion about how these theories can complement each other.

Human Capital theory

In a theoretical discussion about education and educational outcomes it is almost impossible to overlook the Human Capital theory (HC). Although the subject of human capital had been explored previously, first by Adam Smith during the 1700s and later by John Stuart Mill (Sweetland 1996), the field of HC was established in the early 1960s. The understanding behind HC is that investments in people increase their individual human capital, which in turn generates outcomes. In the same way as there are different types of investments (for instance investments in health, nutrition and education) there are various outcomes such as market and economic benefits, health improvement, control over population growth, democratisation, equality and social cohesion (Becker 1993; Brown, Lauder and Ashton 2010).

Even though there are different types of investments and numerous outcomes, most empirical HC research has focused on analysing investments in education in relation to market outcomes (Sweetland 1996). This focus on investment in education stems from the strong connection between education and the labour market, which means that education has a profound positive impact on an individual’s economic position and thus has indirect effects on nutrition and health. The narrow focus on a limited range of outcomes is perhaps harder to explain. One could argue that non-market outcomes, such as health improvements, democratisation or fairness are as important as the market outcomes. Nevertheless, possibly because of the difficulty in measuring these non-market outcomes, most empirical studies have emphasised market-related HC outcomes.

HC is a well-established part of educational research, but like most theories it has also been questioned. Some argue that HC does not pay enough attention to the interaction between demand and supply, and that it therefore treats the accumulation of education as a result of individual effort that will provide investment returns for the rest of the individual’s
Another criticism has been that the educational explosion, underpinned by notions of equality, has negatively affected the value of human capital investments (Brown et al. 2010). The argument is that the education revolution in emergent developing countries, such as China and India, has broken the promise that education always pays off. Globalisation has given companies more options in terms of locations where work can be done, and today there is a large global supply of well educated workers as well as a growing number of low-cost providers who can deliver more for less. However, the most severe criticism is perhaps the frequent failure to take cultural, social and non-material dimensions of human life into account and to thus ignore issues such as gender, identity, and socioeconomic class (Robeyns 2006). Consequently, there is little discussion of individual characteristics and social factors that affect the conversion of education into capabilities.

In this thesis, education is understood as a mean that can increase individual human capital. This growth in human capital can in turn have positive outcomes on both the individual and social levels. Seen in this way, HC is a fruitful theoretical framework when investigating the value of education. However, HC is typically defined primarily in terms of indirect value, i.e. individual abilities that can be transformed into capital in the production (Sen 1997). Additionally, individuals have different potentials and backgrounds, which may affect the conversion of education into capabilities; this has been disregarded in many empirical HC-based studies. This criticism does not imply that HC should be overlooked when discussing the outcomes of education, but it suggests that it is important to recognise that the returns of education are not limited to the market sphere. Additionally, it suggests that the ability to benefit from education differs between individuals.

The Capability Approach

It has long been recognised that social and individual factors affect how individuals can benefit from the means at hand, and that these means are not equally distributed. This has been concretised in Swedish contexts through the power resource model developed by Walter Korpi (Brown and Tannock 2009; Korpi 1978; Korpi and Palme 1998) or the level of living standard approach developed by authors such as Sten Johansson (1970) and Erik Allardt (1975). The theoretical starting point for the concept of the living standard was Richard Titmuss’ discussion of human welfare (Evertsson and Magnusson 2014). In the level of living literature, human welfare has been
described as a function of individuals’ control over resources that can support the ability to govern one’s life such as money, education, familial and social relationships, security etc. (Erikson 2003). The understanding is that individuals have different degrees of control over resources in different arenas; the aim of the level of living approach was to investigate the resources available to individuals in different arenas and to analyse the relationships between them.

In practice, the level of living concept is very similar to the theoretical formulations of human wellbeing within the Capability Approach (CA) (Sen 1985). While the CA has received little attention from sociologists to date, it has become increasingly influential elsewhere and has inspired global, national, and local policies such as the United Nations Development Programme (UNDP). The “birth” of CA can be traced back to 1979 when the economist and philosopher Amartya Sen held a lecture at Stanford University titled “Equality of What?” (Sen 1980), which asked what kind of equality governments should strive to construct. In this lecture, Sen brought together a range of ideas that had previously been excluded from (or inadequately formulated within) traditional economic approaches to welfare outcomes. Sen introduced the concept of “capability”, and argued that governments should be judged against the real capabilities of their citizens. He stated that it is not sufficient to just consider theoretical rights (such as the right to education and health care or the right to vote): the individual must also be able to make use of these rights.

Sen argued that individual needs should be understood as basic capabilities, and that needs were embedded in the demand for equality, i.e. a kind of equality he called “basic capability equality” (Sen 1980: 218). This implies that the focus should shift from means to what means can do for individuals, i.e. the emphasis should not be on income but rather what income can do. The reason for the need to shift focus is that the extent to which means such as income and education are transformed into capabilities varies from one individual to another. This suggests that achieving equality for one individual does not mean that equality will be achieved for all.

According to Sen, development could be seen as a process of expanding individuals’ real freedoms. He stated that the traditional way of looking at development had been too occupied with development in relation to the market and economy, leading to an emphasis on gross national product growth, increases in individual income, and technological advances or social modernisation driven by industrialisation. These objectives, he claimed, could be important means of expanding individual freedom, but it is not enough to only pay attention to the market. The non-market dimension must
also be considered, and issues such as social and economic arrangements as well as political and social rights must be discussed (Sen 1999). If development is understood in terms of expanding substantive freedoms for individuals, it is necessary to focus on the ends that make development important rather than the means by which it is achieved (Sen 2009: 3). However, even if we assume that the ends and means of well-being can be distinguished and that only the means are really important, with means only being significant insofar as they enable one to reach specific goals, the distinction is not always clear. In some cases, ends are also means to other ends. For instance, health is an end in itself but it can also be a means of improving capabilities relating to work, study, travel, and so on.

The capability approach provides a framework for theorising on and measuring social arrangements, policies and changes in society. It is not a theory in the traditional way, but more of a mind-set, a way of thinking about social and individual development. According to CA, policies should be directed at removing obstacles that limit individuals’ abilities to live a life they have a reason to value (Sen 1999). A core characteristic of CA is its focus on what individuals actually can do and be (Robeyns 2005); this line of thinking stands in contrast to approaches that focus on personal income, consumption or GDP.

CA is based on five interrelated features: means, conversion factors, capabilities, agency and functionings. Functionings are things that individuals value being or doing, while capabilities refer to the alternative combinations of potential functionings that the individual can achieve, in other words; the capability to achieve various lifestyles (Sen 1999). Walker (2006) elucidates the concepts of capabilities and functionings and argues that a capability can be understood as a potential functioning, such as having a job, being educated, taking part in discussions, and so on. The difference between a capability and a functioning, she claims, is similar to that between an opportunity to achieve and the actual achievement, between potential and outcome (Walker 2006). Consequently; capabilities are the opportunities or freedoms that the individual can use to realize things they consider as valuable. This highlights the importance of considering the range of capabilities an individual may value as well as the freedoms that will support the establishment of connections between capabilities and valued functionings (Unterhalter 2008). According to CA, the ends of development and justice are individuals’ capabilities to function and their opportunities to do and be. It strongly emphasises the freedom to lead the life one wants, to do what one wants to do and be the person one wants to be. However, it must be stressed that it is the potential and not the achieved functionings
that are important. Therefore, the focus should be on the choices available to individuals rather than what they chooses to be or do in reality.

Furthermore, CA makes a clear distinction between means (goods and services) on the one hand and capabilities and functionings on the other. A wide range of personal, social, and environmental factors are involved in the process of transforming means into capabilities and functionings. Finally, the approach emphasises the importance of free choice and agency. An agent is defined as “someone who acts and brings about change, and whose achievements can be judged in terms of her own values and objectives” (Sen 1999: 19). This definition is closely connected to the concepts of empowerment, voice, autonomy and self-determination. Thus, when evaluating individuals’ capability to lead the lives to which they aspire, the ability to be an agent, to influence, change and steer (at least to some extent) one’s own life and pursue whatever goals one regard as valuable must be considered.

CA places great emphasis on the freedom to live as one desires, do what one wants to do, and be the person one wants to be, i.e. “the freedom to lead lives – that [individuals] have reason to value” (Sen 1999 p. 85). This strong emphasis on agency gives the approach a very individualistic focus. One consequence of this individualistic focus and the importance assigned to personal values and agency is that CA is sometimes considered to be excessively individualistic and to pay insufficient attention to groups and social structures. Advocates for the approach would undoubtedly disagree with this critique and argue that CA does in fact account for social structures. Although CA stresses the significance of free choice and agency it is a misunderstanding to presume that it cannot account for the things groups can do or be (Alkire and Deneulin 2009: 35). There is nothing in the approach that excludes analyses on a group level, or the recognition of the importance of the group for individual wellbeing: indeed, this has been done by authors such as Nussbaum (see for instance 1998; 2000). Nevertheless, the CA does require that one take the individual as a starting point because it contends that it is what happens to individuals within society that is most important. If one chooses to start at the level of social units such as the family, existing inequalities within these units will be systematically overlooked.
Theorising the non-market outcomes of education

One way to start applying the theories discussed in the preceding sections to the practical issues considered in this thesis, i.e. the non-market outcomes of education, is to reflect on the social and personal means that are currently available and the extent to which individuals have control over these means. Figure 2 provides an overview of the capability approach showing the two types of means: public resources provided by society (e.g. the education system, health care, the labour market and insurance), and personal or familial resources such as income, human capital, assets etc.

**Figure 2: The capability approach**
Source: adapted from Robeyns (2005)
Previous studies on social and personal means have amply demonstrated that these resources are not equally distributed and that it is not sufficient to focus exclusively on the right to education. Analyses of societal and personal means can provide explanations for diverse phenomena in a way that complements the established effects of investments in human capital on individuals’ capabilities and functionings.

These analyses must also account for the conversion factors that determine the extent to which individuals can benefit from the means they can access. When considering the environmental and social factors that affect the impact of education, it is important to include the effects of the geographical region in which the individual lives. The distance to the nearest school, the quality of the schools in the area, the availability of different schools and school orientations, and the availability of transport and infrastructure connecting the students’ home and school can all affect the development of the individual’s capabilities and their ability to exploit their means. Similar considerations apply to the social conversion factors. For instance, established gender norms can influence educational choices, supporting or obstructing individuals in acquiring the capabilities to which they aspire.

Moreover, individual factors are equally important. Several individual conversion factors may be important in the context of education, including gender, aspirations, physical and psychological health, and socioeconomic background. All of these factors may affect an individual’s ability transform means into capabilities. It is also important to reflect on choice, i.e. to differentiate between education per se and the ability to decide if and what to study. This distinction makes it clear that studying may involve diminished capabilities. For example, the student may not be free to choose what they study or to decline further education. The functionings gained through education then feed back into the individuals’ means and capabilities, and can thereby have positive or negative effects on other vital dimensions such as earnings, health, and self-confidence. By taking these feedback processes into account, essential aspects of what it is to be human can be distinguished.

The analyses in the articles included in this thesis focus on capabilities rather than functionings. This was primarily done for practical methodological reasons: if we had emphasised functionings, it would have been necessary to consider choice and therefore to make assumptions about what individuals have reason to value. This would complicate the analysis because individual choices, aspirations, and conceptions of a “good life” are sensitive to the society in which the individual lives and their experiences. The culture a person lives in along with their family background, friends, and political and
institutional surroundings are just some of the factors that affect what is perceived as doable on an individual level. Preferences make individuals adapt to perceived values, so they might (unintentionally) be forced to give up a life they value or adhere to a lifestyle they do not value (Halleröd and Strandh 2010). Due to the impact of adaptive preferences, it is preferable to focus on resources and their transformation into capabilities, which are both amenable to empirical investigation.

Human Capital theory and the Capability Approach – connections and distinctions

The active roles of individuals and the abilities that they can achieve and acquire through education (e.g. human capital and capabilities) are emphasised strongly in both HC and CA. Consequently, “the two perspectives cannot but be related” (Sen 1997 p. 1959). However, while HC recognises that investments in individuals are important and that these investments generate different outcomes, most existing empirical research emphasises the market outcomes of education while ignoring individual and social conversion factors. This issue can be avoided by using HC and CA together in a complementary fashion when evaluating educational outcomes. HC suggests that educational investments drive individual and societal economic growth. It therefore places great emphasis on the importance of knowledge and skills acquired through education when looking at individual income-generating ability. This is an important function of education, and it can make all the difference to an individual’s ability to lead a life they have reason to value. However, individuals are not merely means of production, and the outcomes of education can also be considered in relation to the ability to argue and make informed decisions, or the possession of communication skills. This implies that the outcomes of education extend beyond the economy and the market to encompass various non-market aspects.

If the educational system is regarded as a resource or a means of increasing individual human capital we must acknowledge that individual and social factors have an effect on the transformation of this mean into capabilities. It is not enough to consider the formal right to education in isolation: we must also account for the extent to which the individual can benefit from this right. CA allows us to understand how means interact with social and personal factors to affect individuals’ abilities to transform education into capabilities. Furthermore, it helps us to remember that not all educational outcomes are related to the market. CA is a broad framework that was
developed to examine development, justice, individual well-being, and social arrangements. It can therefore serve as a productive theoretical umbrella. It is a useful complement to HC because of its core views, i.e. that that peoples’ well-being is more than the sum of the societies GDP, that we cannot assume that all people value the same lives, and that the means required to develop equivalent capabilities differ between individuals.

One strength of CA is that it is more of a framework, a loose body of theoretical work, than a theoretical panacea that tries to grasp all aspects of human life (Robeyns 2005). As a result, it can be integrated with contributions from different theories. According to the HC, investments in education lead to increases in human capital which in turn affect earnings, which cannot be overlooked when discussing the outcomes of education. At the same time, the CA framework helps us to identify and discuss the role of personal, social, and environmental conversion factors, thereby giving an emphasis on diversity (Robeyns 2005). Thus, by considering concepts, ideas and considerations that have been developed within both approaches when trying to re-conceptualise education and educational outcomes, it should be possible to address both market and non-market outcomes as well as macro- and micro-level issues.

It is also important to note that CA is a dynamic approach since it accounts for the fact that means and capabilities have implications for the future. When using longitudinal data, it is possible to follow individuals over time and to identify the feedback loops between capabilities and functionings. This in turn makes it possible to construct life trajectories for the studied individuals. The ability to follow individuals for extended periods is vital because we know that individual resources interact with a range of welfare dimensions and that welfare problems tend to cluster and accumulate over time (Piachaud, Grand and Hills 2002; Sabri 2011; Skolverket 2011). Finally, the capability approach can be useful when evaluating education due to the arguments of function and capability. In this context, function can be seen as the abstract part of the theory that focuses on inclusion and exclusion in society while capability is more concrete and concerns the resources and abilities that an individual requires to achieve social inclusion.
VI Data and study design

The first section of this chapter introduces the two data sets used to answer the research questions. This is followed by a description of the design of the four studies, and the chapter ends by giving a brief sketch of the Swedish educational system and an overview of some ongoing discussions relating to it.

Data

Studies I and II investigated the relationship between education and the capabilities of agency and voice using data from the Swedish survey of living conditions (ULF, Undersökningarna av levnadsförhållanden). This data set, which has been collected by Statistics Sweden on behalf of the Swedish Parliament since 1975, provides a detailed overview of the Swedish people’s living conditions. Approximately 6 000 to 7 000 personal interviews with a random sample of the population are conducted each year, with an average response rate of around 80 per cent. The data contains information on labour market related issues, social relations, education, and health in addition to individual background factors. The dataset is then augmented with information from various registers that hold information about income, pensions, taxations etc. In 1979, a partial panel approach was initiated. As a result, around half of the respondents are re-interviewed every eight years (Thorslund and Wärneryd 1985).

Studies III and IV explored education in relation to different aspects of health – specifically, the relationships between education and health-behaviour and psychological distress. Here, the Northern Swedish Cohort (NSC) was found to be useful. The NSC is a 27-year cohort study that consists of all students who completed their final year of compulsory education in 1981 (at age 16) in a medium-sized town in the north of Sweden. The cohort consisted of 1083 individuals and was asked to complete a comprehensive questionnaire with more than 90 questions relating to psychological health, somatic health and health behaviours, together with questions on education, the labour market, social interactions and socioeconomic conditions. The participants were later re-interviewed with similar questionnaires at the ages of 18, 21, 30 and most recently at the age of 43. One strength of the NSC is its exceptionally low attrition rate: 93.9 per
cent of the surviving original participants completed the most recent follow-up questionnaire (Hammarström and Janlert 2012).

Study design

The challenge of causality is a major problem in many exploratory quantitative studies. This thesis is no exception in this respect because its objective is to identify causal relationships between education and various non-market outcomes. In studies using cross-sectional data, it is possible to find significant correlations between education and factors such as the capability of voice or health improvement. However, it is obvious that the existence of a strong correlation between education and some dependent variable does not by itself imply that higher levels of education lead to a stronger voice or better health. The relationship could equally well be a consequence of selection during admission to higher education. Many studies address the causality problem by starting from a given theoretical understanding, but in many cases this theoretical understanding is never tested empirically. For instance, one might use a theory which assumes that an increase in the capability of voice is due to favourable labour market conditions but the opposite may in fact be true. That is to say it may be that in reality, individuals with a greater capability of voice use this capability to acquire “better” jobs. One way to handle the problem of causality is to use longitudinal data that make it possible to measure individual changes over time. All of the studies included in this thesis used a longitudinal approach in order to control for selection effects. Both of the analysed data sets include information gathered before the subjects began their secondary school subjects for all of the outcome variables, which made it possible to establish baseline values when constructing models. While this does not entirely eliminate the problem of establishing causality, it does substantially reduce the impact of selection effects.

Studies I and II used data from the Swedish survey of living conditions, in which the same individuals were followed over an eight year period. Conversely, the dataset used in studies III and IV provided information on individuals’ circumstances over a period up to 27 years. This made it possible to include data on the dependent variables of interest (agency, voice, health behaviour and psychological distress) during the period before the individuals entered into higher levels of education. The first two studies used data on individuals who were between 16 and 19 years of age when they were first surveyed. Therefore, some of the subjects were in their final year of compulsory education when they provided the information on their initial
levels of agency and voice while other respondents had completed their compulsory education but not yet entered university when they provided this information. The data set analysed in the second two studies provided information on the health behaviour and levels of psychological distress at age 16 for all respondents. The inclusion of information on the subjects’ backgrounds and prior circumstances reduced the impact of selection on the analysis of the effects of education. When prior information can function as a control for the individual the results and conclusions drawn from the subsequent analysis becomes more robust. One of the strengths of the studies included in this thesis is therefore that they provide information on changes in individuals’ circumstances over time while simultaneously accounting for their initial circumstances. This would not have been possible using a cross-sectional design.

The context

Before presenting the four studies in more detail, some contextual information should be provided. In the early 19th century, Sweden had a tracked educational system that consisted of six years of compulsory school (folkskola), lower secondary school (realskola) and upper secondary school (gymnasium). Lower secondary education was intended to provide students with a general education while upper secondary school was a preparation for higher studies. In order to continue to upper secondary school the child had to complete their lower secondary education and have parents who could pay for their education (For a more far-reaching description of the Swedish educational system see e.g. Erikson and Jonsson 1996).

In order to equalise access to education and reduce selection effects due to class background or geography, reforms were introduced in 1962 by the Social-Democratic government (Erikson and Jonsson 1996; Halldén 2008). Education then became free of charge at all levels, and elementary and secondary education were extensively standardised using national curriculums. The skills taught during this period were general rather than specialised, and the degree of tracking was low. Students choose a secondary educational track after completing nine years of compulsory education (usually at age 16), and almost all students continued to secondary school. Three secondary school tracks were available: a two-year vocational program along with two- and three-year academic tracks. While the three-year program was intended to be the main way of preparing students for university studies, the other two programs also provided some opportunities
to progress into higher education (Erikson and Jonsson 1996; Richardson 2010).

In retrospective, the years when the individuals were surveyed may have been the period during which the levels of equality in the Swedish school system were at their highest. There was a political will to compensate for inequalities due to social background (although it is clear that inequalities can also be grounded in sex, ethnicity, disabilities etc.,) and reforms were implemented to solve the problem of social bias in labour market recruitment. The Swedish educational system has since undergone substantial changes. For example, the education system has become less centralised, the number of publicly financed private schools has increased, secondary school programs have become more diverse, and there is a greater degree of local variation (Halldén 2008). Today Sweden is one of the few countries where both students’ results and equivalence drops. In addition to providing poorer average results, the changes have been accompanied by a widening gap between the highest and lowest performing students and between the highest and lowest performing schools (Skolverket 2011; Skolverket 2013). However, most of these changes occurred during the last 20 years. Therefore, the individuals examined in the four studies presented in this thesis went to school when the education system was much more uniform and coherent.
VII Summary of articles

Article I: Higher education and self-governance - the effects of higher education and field of study on voice and agency in Sweden

Authors: Annica Brännlund, Erica Nordlander and Mattias Strandh. AB and EN conceived the paper topic and the study design. AB performed the data analyses and drafted the manuscript. AB, EN and MS revised the manuscript. All authors have read and approved the final version of the manuscript. (Published in International Journal of Lifelong Education, 2012)

We know from previous studies that education has profound effects on individual earnings and working career progression, and there is strong evidence for the positive effects of education on labour market and economic outcomes. Such outcomes are indisputably important. Education represents an individual and societal investment of time, effort, and money that will hopefully give its recipients a more stable career in the labour market along with higher earnings, thereby improving their quality of life. However, there are further outcomes of education that might also have positive effects on quality of life. More specifically, education may affect non-market factors such as democracy and civic engagement.

The first study examined the effects of an individual’s level of education and field of study on two vital non-market capabilities: agency and voice. The study was based on the Swedish Survey of Living Conditions (ULF, Undersökningarna av levnadsförhållanden) and focused on an eight-year longitudinal data set containing information on 1 058 young Swedes. The data set included information on numerous welfare-related issues such as work, education, health, and so on. Moreover, the data set included information on the subjects’ baseline levels of voice and agency, which was used as control data.

The hypothesis was that an individual’s level of education and field of study would be associated with their agency and voice, and that education would therefore affect their capability to participate in and influence the society in which they live. The results suggested that the capabilities of agency and voice were enhanced by university education. Moreover, it was found that different fields of study had different effects on the capability of agency, with studies of social science and business education being associated with the greatest probability of agency. However, an individual’s field of study had only modest effects on their capability of voice.
Article II: What does class origin and education mean for the capabilities of agency and voice?

Authors: Erica Nordlander, Mattias Strandh and Annica Brännlund. EN and AB conceived the paper topic, and the study design. EN performed the data analyses, and drafted the manuscript. EN, AB and MS revised the manuscript. All authors have read and approved the final version of the manuscript. (Published in British Journal of Sociology of Education, 2013)

It is well known that social class affects individuals’ life chances. Research has shown that both an individuals’ social background and their educational success affect their future labour market career. However, it is not known whether or how these two factors relate to the non-market aspects of an individual’s life. This study explored the link between class background and education and the capabilities of voice and agency. This was done by considering four research questions: Are there differences in the capabilities of agency and voice between young adults from different social class origins? Does educational attainment affect the capabilities of agency and voice? Can any differences between youths of different class backgrounds with respect to these capabilities be understood in terms of differences in educational attainment? Finally, are there any differences in the importance of educational attainment for the realization of agency and voice between youths with different social class backgrounds? As in the previous article, the study was based on panel data from the Swedish Survey of Living Conditions.

The results verified the conclusions of previous studies in the field: social class background continued to have profound effects on educational attainment. Moreover, there was evidence for a connection between a student’s familial family social background and their capabilities of agency and voice: children with a blue collar background had reduced capabilities compared to their peers with white collar backgrounds. However, it was also found was that higher levels of education had a positive impact on the capabilities of agency and voice, and when level of education was taken into account the effect of social class declined significantly. These results indicate that education and social class work together in supporting agency and voice. Finally, the analysis showed that university education matters more for individuals with a blue collar background.
Article III: Education and health-behaviour among men and women in Sweden

Authors: Annica Brännlund, Anne Hammarström and Mattias Strandh. AB conceived the paper topic, the study design, performed the data analyses, and drafted the manuscript. AB, MS and AH revised the manuscript. AH is also responsible for the data used in the study. All authors have read and approved the final version of the manuscript. (Published in Scandinavian Journal of Public Health, 2013)

When summarising earlier findings concerning the effects of education on health-behaviour, we found convincing evidence of a positive relationship between the two. However, most previous studies in this area analysed cross sectional data and so there was a lack of information on the long-term relationship. While some of the studies had used longitudinal data, we found none in which the same cohort had been followed for a period of 25 years or more. The aim of this study was thus to investigate the relationship between education and individual health-behaviour from a life course perspective.

The data used for this article, the “Northern Swedish Cohort”, is a cohort study that focuses on 1 080 graduates of a compulsory school in a Swedish town, of which 1 044 were included in the analysis. The students completed comprehensive questionnaires at the ages of 16, 21, 30 and 43, with response rates of up to 96.4%. The relationship between an individual’s level of education and their health-behaviour (which was treated as the dependent variable) was investigated using binary logistic regression. In addition to baseline information on the individuals’ health-behaviour at age 16 (including somatic and psychological health conditions), socioeconomic background, and sex, the analyses were also adjusted for two factors that have been linked to both education and health in previous studies, namely the individual’s working circumstances and social network.

The results revealed a negative relationship between higher levels of education and high risk health-behaviour that persisted even after controlling for health-behaviour at age 16 and background factors. The general effect of the level of education on health-behaviour was stronger among men than women. The main findings of this study were thus that education reduces the probability of high risk health-behaviour over the course of an individual’s life, and more so for men than for women.
Article IV: Higher education and psychological distress

Authors: Annica Brännlund and Anne Hammarström. AB conceived the paper topic, the study design, performed the data analyses and drafted the manuscript. AB and AH revised the article. AH is also responsible for the data used in this study. All authors have read and approved the final version of the manuscript. (Published in Scandinavian Journal of Public Health, 2013)

To some extent, this study built on the preceding one that focused on the link between education and health-behaviour. Both studies used the same data set, i.e. the “North Sweden Cohort”, and adopted a longitudinal approach, and they both dealt with health-related outcomes of education. However, this study focused on the association between education and psychological distress. More precisely, its aim was to explore the impact of education on psychological distress in adult individuals and to determine whether the apparent effects of education could be understood as consequences of an individual’s available social resources and working life.

Individual levels of psychological distress at the ages of 21, 30 and 43 were treated as the dependent variables in OLS regression models. The impact of social resources and work-related factors on distress was analysed by considering several indicators. Three indicators of social resources were used: social networks, social support and family status. The indicators used to analyse the effects of working life were the individual’s working conditions (both demand and control) and their labour market attachment. The control variables used were the individuals’ baseline psychological health at age 16, along with somatic health, parental socioeconomic status, and gender.

Unsurprisingly and in keeping with previous findings, education was found to have a positive effect on psychological health. However, it was also found that as the subjects got older (at the ages of 30 and 41), the effects of education seemed to operate via both social resources and working conditions. Additionally, the mechanisms appeared to be somewhat different for men and women. For men, working life was the mechanism that was most strongly related to reduced levels of psychological distress, whereas social resources were more important for women.
VIII Main findings and concluding discussion

The general aim of this thesis was to explore the relationship between education and non-market outcomes on the micro level, with a particular focus on the potential effects of on social participation and health. The connections between education and (i) agency, (ii) voice, (iii) health-behaviour, (iv) psychological distress, were investigated. This concluding chapter presents the main findings of the studies and then suggests some potential directions of future inquiry.

The contribution of this thesis

The findings clearly demonstrated that higher levels of education had important effects on the studied non-market outcomes. Education, and especially university education, enhanced the capabilities of agency and voice, reduced levels of psychological distress, and had a positive impact on individual health-behaviour. These results were not unexpected. In line with HC, we knew that education has positive effects on market outcomes that include increased competiveness and better individual income development, and we had no reason to expect contradictory results concerning its impact on non-market outcomes.

One of this thesis’ key contributions is the methodological insights it has provided concerning the importance of longitudinal data. All of the studies clearly demonstrated the advantages of analysing long term information. Because the aim was to investigate educational effects, data sets that could be used to follow individuals’ development over time were analysed. This allowed us to monitor changes in the status of specific individuals and also to account for the effects of their previous circumstances. Adopting a longitudinal approach made it possible to control for selection effects by incorporating baseline values for the dependent variables into the developed models. This proved to be vital in all of the studies. The results obtained clearly demonstrated that it is not sufficient to simply analyse cross sectional data to evaluate the outcomes of education at a single point in time if the aim is to understand the development of individuals’ capabilities. While the inclusion of baseline values obviously did not completely eliminate selection effects, the design of the studies did substantially reduce their impact and increased the validity of the conclusions that were drawn.
The studies demonstrated that higher education can serve as a means of increasing human capital and thereby influencing individual well-being. They also showed the importance of considering individual and social conversion factors that affect the extent to which an individual can benefit from the available means. The studies on the relationship between education and individual capability of agency and voice demonstrated that students’ social backgrounds interact with educational attainment (Nordlander, Strandh and Brännlund 2013), and that university education was more important for the development of these capabilities among individuals with blue collar backgrounds than for those with white collar backgrounds. These results suggest that university education has an equalising effect on individuals’ capabilities to participate in society and thus in democracy.

Another example that shows the importance of including individual and social factors when evaluating educational outcomes was identified in the study on the relationship between education and psychological distress (Brännlund and Hammarström 2013). This revealed that higher levels of education were associated with lower levels of psychological distress, and that this relationship was partly explained by the social and labour market outcomes of education. This finding highlights the interaction between the market sphere, which is often strongly emphasised within HC, and the non-market sphere. However, it was also found that the social and labour market outcomes generated through education had different effects on psychological distress for men and women. For men, labour market outcomes such as stable employment were most strongly linked to low levels of psychological distress. Conversely, for women, social resources (e.g. having a partner) were more important in determining levels of psychological distress. This result was somewhat unexpected. Sweden is often put forward as one of the most gender equal countries (Klugman, Rodríguez and Kovacevic 2011); it has a long tradition of dual-earning responsibilities and many policies that support women’s participation in the labour market participation as well as the active involvement of men in familial responsibilities (Olàh and Gähler 2012). Despite this, there were clear differences between the effects of labour market outcomes and social resources on psychological distress for men and women. These results suggest that such effects may be even more pronounced in countries with less gender equality.

Ideally, information on the subjects’ fields of study would have been analysed in all of the investigations included in this thesis. Unfortunately, practical factors and a lack of data meant that such information was only considered in one of the four studies. Nevertheless, it was found that studies in different fields generated different field-related resources. This is consistent with CA, which regards education as a means that can be
converted into capabilities, if one considers that studies in different educational fields will have different characteristics, and these field-related characteristics may differ in the extent to which they support the development of specific capabilities. This argument is supported by the finding that education in the fields of social science and business improved individuals’ capability of agency. These fields are often considered to be “soft” and associated with worse market-based rewards than “harder” fields such as the natural sciences. However, students of the social sciences and business were the only ones who exhibited a significant increase in the capability of agency between the two survey rounds. This suggests that field-related outcomes may not be equally valued, and that fields that are considered to be of comparatively low value in the context of the market may nevertheless have important value in the non-market sphere.

The results presented in this thesis suggest that current discussions about the diminishing value of education may provide different conclusions if non-market outcomes were considered alongside those that directly affect the market. It may be that even if education’s market value has declined (and there is no consensus that this is the case), it may nevertheless have strong positive effects on non-market outcomes. Higher levels of education were found to increase individual well-being, and the studies clearly showed that higher levels of education have positive effects on both social participation and individual health. In addition, the value of education in relation to the non-market sphere is not a zero-sum game; everyone can be a winner.

**Summary**

Going back to the previous discussion about overeducation and education inflation, which suggests that the value of education is falling, the studies clearly demonstrated that education continues to be important for both individuals’ wellbeing and for society as a whole. Education generates non-market outcomes that subsequently feed back to the market. One example is the positive effect that higher education has on health: a healthy population is valuable in both market and non-market contexts, and at both the micro- and macro-levels. When reviewing the critique arguing for a declining value of education it becomes clear that the arguments that are put forward centres on a rather limited understanding of the things that should be seen as valuable and vital educational outcomes, i.e. outcomes that can be traded on the market. When evaluating the outcomes of education it is important to also consider non-market outcomes. This does not mean that we should ignore the market outcomes of education by any means, just that we should give equal consideration to non-market outcomes.
It is important to recall that when discussing education, we cannot focus exclusively on outcomes. We must also account for societal means such as the features of the educational system and the quality of the schools. For example, we should consider if education is free of charge, whether the school can provide adequate support to students that have special needs and whether the curriculum enhances the acquisition of knowledge by all students or just a few? Similarly, individual means must also be accounted for. For instance, money may provide access to a prestigious school, and having parents that can help with homework often makes a big difference. Additionally, both micro- and macro-level conversion factors can profoundly affect an individual’s ability to benefit from education. On the macro level, gender norms may discourage a boy from becoming a pre-school teacher or a girl from pursuing a career as a car mechanic. Individual factors such as bad health or reading and writing difficulties will also affect the conversion of education into capabilities. This demonstrates that the market and the non-market domains are intertwined, and that only taking one of them into account can yield misleading conclusions regarding the importance of education. In conclusion, it is not sufficient to just consider the formal right to education because the support needed to transform this right into a valuable outcome differs from person to person.

**Where should we go from here?**

This thesis opened with a quote of Martha Nussbaum that highlights the importance of education for the development of non-market capabilities. The studies included in the thesis provide further support for her position. Furthermore, while it was not discussed extensively in this thesis, it is well known that education has several valuable market-related effects on factors such as individual earnings and productivity. Based on this knowledge, where do we go next? I would argue that establishing a comprehensive understanding of the value of education will require a series of longitudinal studies with a multidimensional perspective. The market and the non-market outcomes of education are interconnected and influence each other over time: the various outcomes accumulate and feed back into one-another, giving individuals access to new means and capabilities that in turn shape their future. We therefore require longitudinal studies that can account for the clustering of outcomes in different dimensions while also disentangling the long-term relationships between them.

For example, in recent years there has been increasing interest in the link between childhood disadvantages and exclusion later in life. Much empirical work has been done within this field, and the results have shown that
children’s experiences of social difficulties and economic hardship are connected to problems with emotions, health and deviant behaviour during youth, in addition to school performance (Bolger et al. 1995; Case and Paxson 2006; Duncan, Brooks-Gunn and Klebanov 1994; Haveman and Wolfe 1995). Research has also yielded evidence for a strong link between low educational performance and the risk of exclusion later in life (EC 2010). While these results provide researchers with valuable knowledge, we know less about how different circumstances during an individual’s life interconnect and form the future.

In keeping with the assumptions of CA, individual development is not straightforward because capabilities and functionings loop back and create new means. For example, the capability to work feeds back and becomes a means in the form of (among many other things) income, and the capability of voice becomes a means to engage in the development of the society. Equally, these market and non-market means and outcomes are interconnected and interact. For example, the ability to work affects health, and bad health can affect the ability to work. It will therefore be important to determine how different resources during childhood and adolescence are interrelated and can prevent exclusion from both the market and non-market spheres later in life.
IX References


Allardt, Erik. 1975. *Att ha, att älska, att vara: om välfärd i Norden (To have, to love, to be: welfare in the Nordic countries).* Lund: Argos.


It may be necessary to point out that there is no academic consensus regarding the definitions of the terms intrinsic and extrinsic outcomes, and that there are inconsistencies in the classifications of specific outcomes as one or the other. However, this problem is not discussed further because it is not relevant to the work presented in this thesis. The definitions provided above are thus sufficient for our purposes.

Martha Nussbaum has, along with Amartya Sen, been perhaps the most influential academic in the enlargement of the capability approach framework. She has developed a list of ten “central human functional capabilities” (Nussbaum, Martha. 2000. Women and Human Development: The Capabilities Approach. Cambridge: Cambridge University Press.) which she argues should be guaranteed to all: life, body health, body integrity, being able to use the senses, to imagine, think and reason, emotions, practical reason, affiliation, being able to live with concern for and in relation to animals, play, and control over one’s environment.

Then again, one could also argue that adaptive preferences can be regarded as a capability, and that adaptation helps people to live a better life by making use of the means they have. Thus “the capability of adaptation” enables individuals to live a life they have reason to value.