Education and social capital: empirical evidence from microeconomic analyses
Huang, J.

Citation for published version (APA):
Huang, J. (2010). Education and social capital: empirical evidence from microeconomic analyses Amsterdam: Thela Thesis

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Chapter 1
Introduction to Social Capital Theory

1.1 Social capital

Social capital is considered an important asset for individuals, groups, communities and society because it is related to individual health and socio-economic status, and it affects the crime rate, social cohesion, and social welfare (Portes, 1998; Lin, 2001; Flap and Boxman, 2001; Flap, 2004; Helliwell, 2001). The interest in social capital has led to an explosion of studies on its economic and social effects, as well as on its sources of origin and accumulation mechanisms. Social capital is a heuristic concept with diverse and multidimensional definitions and operationalizations, and research has expanded into numerous arenas and applications. Coleman defines social capital as social-structural resources that “facilitate certain actions of individuals who are within the structure” (Coleman, 1990a, p. 302). Putnam et al. (1993) and Putnam (1995a, 1995b) extends the term ‘social capital’ to describe elements of social life such as networks, norms, and trust that “facilitate coordination and cooperation for mutual benefit”. The World Bank and the Organisation for Economic Co-operation and Development (OECD) have also considered the definition of social capital. The OECD defines social capital as “networks together with shared norms, values and understandings that facilitate co-operation within or among groups” (Cote and Healy, 2001, p. 41). The World Bank suggests that social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society’s social interactions.

The scope of social capital ranges from the micro- and meso- levels to the macro-level, as reviewed by Grootaert (1998), Grootaert and Van Bastelaer (2001). These scopes are characterized by social norms and reciprocity at varying social scales, from individual to the level of communities and nation states.

The micro-level of social capital, or social capital at the individual level, is generally classified as an aggregation of personal involvement in voluntary associations and trust in people: those we know and those we do not know. The meso-level refers to the number and density of groups in a given community with the assumption that social capital is inherently good, that more is better, and that its presence always has a positive effect on a community’s welfare. The meso-perspective equates social capital with such local organizations as clubs,
associations, and civic groups in the community or region. Macro-level social capital includes the social and political environment that shapes social structure and enables norms to develop. At the macro-level, researchers, such as Collier (1998) and Baumann (2000), define the political or institutional level on the basis of the argument that the vitality of community networks and civil society is largely the product of the political, legal, and institutional environment. Researchers, such as Putnam et al. (1993) and Fukuyama (1995), define the ethnic level or cultural level according to the ethnic and cultural heterogeneity in the level of generalized trust, norms of reciprocity, and conventional habit in participating in civic activities across nations and races.

So far, the most compelling empirical evidence in support of the social capital theory comes from studies on the individual level, where it is possible to employ microeconomic analysis, and it lends itself to easier application and generalization in empirical models of research. At the meso- and macro-level, researchers do not have a uniform definition, and there is no standard and convincing quantitative economic measure of collective social capital available. Overall, “decisions to invest in social capital are made by individuals, not communities. Without a definition of social capital that begins at the individual level I cannot begin to understand its formation” (Glaeser, 2001).

This dissertation will focus on two commonly discussed dimensions of social capital at the micro-level – individual social trust, and individual social participation. The presence of social capital is indicated by a high degree of trust in most people and participation in collective action, and these elements reinforce one another in a virtuous circle (Putnam, 2000).

1.2 Attributes, importance and measurement of individual social trust

Social trust is the amount of trust individuals have in most people, those they know and do not know. Social trust reflects the bond that people share across economic and ethnic groups. It is the foundation of a cooperative spirit that brings people together for common and mutually advantageous purposes (Rothstein and Uslaner, 2005). On the basis of a review of the literature on social trust, two dimensions of social trust are distinguished at the micro-level:

A. Individual perception of the social environment;

B. Individual moral values.
Firstly, social trust is an indicator of the individual perception of the social environment. It reflects the individual assessment about how people in general are behaving, and how society is developing. From this perspective, the degree of social trust depends on social circumstances, as well as on individual knowledge and rationality in assessing social risks and uncertainties. Community safety (in terms of crime rates), community homogeneity (in terms of ethnicity or socio-economic class), and fairness of social welfare (in terms of wealth distribution, racial and gender equality) are critical determinants of social trust at both the individual and societal levels. Recent studies suggest that uncertainty arising from social heterogeneity is a key impediment for social trust formation. Alesina and La Ferrara (2002) propose that most individuals are less inclined to trust people who are different from themselves. Social trust also embodies the individual sense of fairness or justice in society. Rothstein and Uslaner (2005) argue that social trust originates from an equitable distribution of resources and opportunities in a society. It has been shown in many surveys that the countries with the highest scores on social trust, like the Nordic countries, the Netherlands, and Canada, also rank highest in terms of economic, gender and racial equality.

Secondly, social trust has its roots in the individual morality that people follow in social and daily life (Uslaner, 1999). People who believe in racial and gender equality, for instance, are more tolerant towards minorities and towards others who are not like themselves, and these people have a higher level of trust in others. Trustworthiness is a crucial morality that is associated with social trust. People who consider themselves to be untrustworthy are less trusting of others (Putnam, 2000, p. 138). Glaeser et al. (2000) also propose that trustworthiness can be correlated with giving positive answers to the question about trusting others, according to their study based on a trust experiment. A typical reason for such correlation is, as one man put it, “I feel if I can be trusted, I can trust other people. Throughout my lifetime I’ve found that to be true, that if you are up and above and honest with people, they will return that respect” (Wuthnow, 1998). Therefore, one’s willingness to trust others can be a reflection of one’s self-knowledge of whether one can trust oneself and one’s feeling of whether one needs to be trustworthy for reciprocity.

While the individual perception of social environment and individual morality are the basic aspects of social trust at the individual level, these notions do not share the same features. Social trust as a perception of social risks and fairness is a knowledge cumulative function, which is strongly correlated with social environment, individual standing or bearing in society, and individual self-image of one’s ability in handling the uncertainties in society. Social trust as a moral value stems from family and school influence and is possibly exposed
to individual life experiences, in particular, traumatic experiences (Alesina and La Ferrara, 2000b).

The importance of social trust has been widely recognized. Social trust reflects a bond that people share across society, across economic and ethnic groups, religions and races. It is the foundation of a cooperative spirit that brings people together for common and mutually advantageous purposes (Rothstein and Uslaner, 2005). Social trust correlates with many variables that are normatively desirable for most people. Those who believe that most other people in their society in general can be trusted are also more inclined to have a positive view of their democratic institutions and participate more in civic organizations. Individuals with a higher level of trust in people also have a more optimistic view of being able to control their own life-chances, and, not less important, are happier with how their life is going (Uslaner, 2005).

Social trust also contributes to economic growth and market efficiency. Knack and Keefer (1997) find that a one standard deviation increase of the national-level of social trust increases economic growth by more than one-half of a standard deviation. High levels of social trust lead people to expect that others are cooperative and not opportunistic in social and economic exchanges, which reduces transaction cost and helps solve the free-rider problem in providing public goods. La Porta et al. (1997) show that social trust promotes the performance and character of political institutions. It is positively correlated with judicial efficiency, and negatively correlated with government corruption.

Social trust is usually measured by the response to the following question: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” This operationalization of social trust has been widely used for more than four decades in empirical studies and surveys around the world, including the National Child Development Study (NCDS) in the UK, the General Social Survey (GSS) in the US, and the World Values Survey (WVS).

While the survey question is controversial among some researchers for its abstract definition with respect to which “people” respondents have in mind, it has been proved informative in many studies. Uslaner (2002) points out that this measurement of social trust provides useful information on respondents’ faith in other people, and it is far beyond being simply an indicator of respondents’ interactions with their intimates. Many empirical studies on the benefits of social trust employ this measurement as the main indicator, and they provide plenty of evidence for the positive effects of social trust at the individual and societal level (see, e.g., Knack and Keefer, 1997; La Porta et al., 1997; Whiteley, 2000).
1.3 Attributes, importance and measurement of social participation

Social participation refers to people’s social involvement and interaction with others. It is defined in this thesis as the organized collective activities associated with voluntary groups and organizations relating to community living and welfare. These social groups and organizations are outside the political arena and the workplace (i.e. unions, parties, voting and lobbying groups). Based on Max Weber’s typology ([1914]1978) of social action, activities in unions, parties, voting and lobbying groups are instrumentally rational action, serving the purpose of certain interest groups. These group activities do not share the same contexts with social participation as defined in this thesis. Social participation occurs in neighborhood associations, environment groups, charity groups and other community or voluntary organizations. Social participation is a form of affective or value rational behavior; it constitutes its own reward and is regarded as a type of expressive action. Lin views *instrumental action* as directed at obtaining new resources, while *expressive action* is directed at preserving or maintaining resources (Lin, 2001; Lin and Erickson, 2008). There are differences between instrumental action and expressive action in terms of gender involvement. Women are much less likely to join in political groups, labor unions and staff associations. They tend to participate in smaller, more peripheral organizations and activities with a focus on domestic or community affairs, while men tend to participate in large, core organizations that are related to economic institutions and political activities.

The local and community aspects that social groups focus on can be private interest-oriented, such as parent-teacher associations (PTAs), tenant associations, as well as altruistic interest-oriented, such as charity, environmental and community volunteering. These social groups are established to facilitate people’s effective involvement in community life, to improve the living environment or teaching quality, and to increase social well-being.

Social participation can act as a resource for the people involved by increasing access to information (Knoke, 1990). Group members acquire organizational skills and expand their social ties in ways that may have a positive impact on their physical and mental health. (House et al., 1988). Researchers believe that social participation helps to promote a sense of community and norms of reciprocity and facilitate the transmission of knowledge. In addition, a high level of social participation is supposed to raise civic norms among people and strengthen the foundations of a democratic society.

To measure an individual’s social participation level, two sub-categories are distinguished to capture the complexity and diversity of social participation: membership of voluntary
Chapter 1

social groups and participation frequency in voluntary activities. Researchers conventionally rely on membership of social groups: namely, group membership as a main indicator of the level of social participation. Participation frequency in activities related to social groups is also an indicator used to study an individual’s involvement in social activities. Voluntary participation is a self-imposed obligation in social groups, which is not dictated by others; the individual may choose to participate, to a greater or less extent, or not at all. Thus, participation frequency in group activity is an important subject in social participation studies. The participation outcome variables in this dissertation are measured as either the probability of joining voluntary groups/participating in voluntary activities or the degree of social involvement.

1.4 Education and social capital

Education, according to Putnam (1995a, 1995b, 2000), Brehm and Rahn (1997), Glaeser et al. (1999), and Alesina and La Ferrara (2000a), is one of the most important determinants of individual social capital. It reflects an orientation toward the future by strengthening human capital and social capital for economic and social development. Schooling spreads knowledge − the basic component of human capital, and cultivates social norms − the core of social capital. It is the first non-familial context in an individual’s life where moral and cognitive capacities are trained (Offe and Fuchs, 2002). Through civil education from schooling, students learn the basic norms and responsibilities in society, as well as the functioning of democracy.

Glaeser et al. (1999) assert that the most robust correlate of social capital variables is years of schooling. Using the World Values Survey, they find a positive relationship between schooling and membership of organizations in almost every country. Denny (2003) claims that acquiring a 4-year university degree is associated with a 10 percent higher probability of an individual engaging in voluntary work. Putnam (1995a, 1995b, 2000), Uslaner (1997, 1998), and Alesina and La Ferrara (2000a, 2000b) also show that more educated people are more likely to trust other people, and that they tend to join more social organizations and participate in group activities more frequently.

In studies on private returns to education, the endogeneity of schooling is always a difficult topic to tackle. It is confirmed that income and educational attainment can be simultaneously influenced by a wide range of unobservable terms, and that the omitted-variable problem could lead to an upward bias in the estimate of the education effect.
Similar problems can emerge in the investigation of the relation between educational attainment and social capital.

The divergence in the transitions of education and social participation in Western countries casts another shadow on the positive role of education. Over the second half of the twentieth century, most Western countries have experienced an evolution from an elitist higher education system to a mass higher education system, and the average education level of people increased dramatically. Figures from the OECD Education at a Glance 2007 show that more than one in five adults in OECD countries have received tertiary education. If education is a major source of social engagement, there should also have been a substantial rise in the social participation rate for these countries. However, it appears in many social reports that nowadays more people are disengaging from civic life and social ties as they belong to fewer voluntary groups, they volunteer less, and they give a smaller share of their income to charity (Knack, 1992; Putnam, 1995a, 1995b). With the exception of the Scandinavian countries and Japan where levels have remained relatively stable, there seems to be a common pattern of declining organizational activity across industrialized democracies during the 1980s and 1990s (Leigh, 2003). There is thus reason to be skeptical about the role that higher education plays in the formation of social participation behavior. Its hypothetical impact on social participation needs to be further verified.

This dissertation provides a systematic evaluation of the role of education in the formation of social capital from different perspectives. A research synthesis is conducted on the estimates of the education effects on individual social capital, and in Chapter 2 a meta-analysis is performed to evaluate the possible sources of the variations in the effect of education on social capital in the relevant literature.

Several aspects in the meta-analysis will be investigated further in the later sections of this thesis. Analyses are presented on whether different education measurements have an impact on the size of the schooling effect, with an emphasis on schooling endogeneity. Efforts are taken to develop an assessment of an explicit causal pathway from higher education to the formation of social capital from a mid-life perspective. Potential gender difference in the association between education and social capital is another key subject of this thesis. The traditional gap in the participation in higher education between men and women has been narrowed or has even disappeared over the last half century, and highly-educated women are keener to move out of their home into paid employment. The increasing number of women who are both breadwinners and caregivers may directly result in their higher work pressure, greater time constraints, and consequently less involvement in social activities.
Chapter 3 explores the relations between social capital in early childhood, education achievement, and social capital in adulthood with a multiple-stage analysis. Education is aggregated into a single measure – years of schooling – in this study. In the later sections of the dissertation, a binary treatment model is applied to evaluate the impact of college/higher education on social trust and social participation. The control functions probit (CFP) and the bivariate probit (BVP) methods are applied to correct for omitted-variable bias in a single-treatment framework with a binary outcome. Model development and simulation performance for the CFP and the BVP methods are presented in Chapter 4. In Chapters 5 and 6 these two methods are employed to study the causal impact of college/higher education on, respectively, social trust and social participation. Some light will be shed on the gender-specific effect of education and the potential causal pathway from educational achievement to the development of social capital from a mid-life perspective. Chapters 5 and 6 offer some empirical findings that can be seen as clues to the puzzle that arises from the decline of social capital and the development of education. Chapter 7 is a concluding chapter that discusses and compares the evaluation results from the previous studies in this dissertation.