Transnational Human Capital, Education, and Social Inequality. Analyses of International Student Exchange

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Summary: Due to globalization, skills such as foreign language proficiency and intercultural competence, here referred to as transnational human capital, are becoming increasingly important. A study-abroad program during schooling is one of the most efficient ways to acquire transnational human capital. Until now, class-specific access to transnational capital has remained largely unexplored. With recourse to the literature on the sociology of education and to the work of Pierre Bourdieu, we have developed hypotheses and tested them using German Socio-Economic Panel (GSOEP) data. The findings indicate that the likelihood of studying abroad is determined a) by the capital available to the parents, b) by the cultural capital and the commitment of the child, c) by the opportunity structure, and d) by family conflicts. Attendance of a ‘Gymnasium’ has a crucial filtering function. Overall, the probability of acquiring transnational human capital through study abroad differs significantly according to the economic capital of the child’s parents.

Keywords: Globalization; Transnational Human Capital; Social Inequality; Bourdieu; KHB Decomposition; GSOEP.

1 Globalization and the growing importance of transnational human capital

Nation state societies have been in a process of deep transformation since at least the 1970s, described by many authors in terms of ‘globalization’ and ‘transnationalization’ (Zürn 1998; Beisheim et al. 1999; Held et al. 1999; Gerhards & Rössel 1999; Dreher 2006; Mau 2007; Pries 2008). The scale, density, and speed of exchange between nations and between the regions of the world have increased dramatically since that time. Borders have been softened and interregional economic, communicative, cultural, and political exchange have increased rapidly. This is true especially of Europe. The creation of the single European market and the associated free-movement of goods, financial capital, services, and labor have promoted cross-border economic development and a Europeanization of the EU member states (Fliedstein 2008). 1

On the relationship between globalization and Europeanization see Gerhards & Rössel 1999.

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The growth of the global interconnectedness is also reflected in the indicators for measuring globalization processes (Beisheim et al. 1999; Kearney 2001; Lockwood & Redoano 2005; OECD 2005; Raab et al. 2008). One of the most commonly used indicators is the KOF index, developed by a working group at the ETH Zurich (Dreher 2006). The KOF index combines 23 indicators of economic, social and political globalization for more than 150 countries since 1970. This includes, for example, economic flows, economic restrictions such as tariffs, social contact between people from different countries, flows of information, membership rates of international organizations, etc. The index measures the extent to which a country is linked with other countries in various dimensions. The results show an impressive increase of international connectedness for all countries included in the analysis, and in particular for Germany, which is the focus of this article. Thus, in the period from 1970 to 2008, the globalization index measured an increase of globalization in the German Federal Republic from a value of 55 to a value of 85.

With the processes of globalization and Europeanization, the requirements for people within the nation states have changed, especially regarding education and the labor market. Increasing international integration and the dominance of the English language within world society require new skills. We refer to this collectively as transnational human capital. For instance, today – unlike a few decades ago – studying one or more foreign languages has become compulsory for almost all students as part of national school curricula (Baidac et al. 2008). Similarly, foreign language competence, especially knowledge of English, has become essential in many occupations – not only in highly skilled positions, but also in some middle and low-skilled service positions (Tucci & Wagner 2003).

Other, ‘softer’ forms of transnational skills also play a role: intercultural communication in the exchange of knowledge, in commerce etc. requires not only the ability to understand and actively speak a foreign language, but also a knowledge of other cultural.
tures, an ability to comply with behavioral norms in everyday situations, and knowledge of foreign labor markets, institutions, and legal systems (Kristensen 1999; Lenske & Werner 2000; Wordelmann 2004). In this context, Koehn & Rosenau (2002) talk of a “worldwide skill revolution”.

We have conducted a content analysis of job advertisements in the Frankfurter Allgemeine newspaper in 1970 and 2010. The results show that over time the requirements for jobs have changed, in fact: (a) the percentage of the ads published partly or entirely in English has risen tenfold during this time, (b) international experience and a willingness to work abroad have become a recruitment criteria, rising from 3.6 percent in 1970 to 20 percent in 2010 and (c) foreign language knowledge – above all English language knowledge – is increasingly expected of all candidates, at 50 percent of all ads, up from 23 percent in 1970.

These changes in societal conditions do not mean that all individuals profit from the new opportunity structures in the same way. The opportunities of citizens to participate in processes of transnationalization, to travel, to form new friendships, to inform themselves about foreign languages and cities, but, above all, to respond to changing job requirement profiles, favor especially those who have international experiences, who studied abroad and speak several languages. There are various ways to acquire human capital in the course of one’s education or career. One very effective way is to spend time abroad – especially at a young age. Studies show that simply studying abroad can not only improve foreign language ability, but also creativity (Leung et al. 2008; Maddux & Galinsky 2009), intercultural competence and knowledge of other countries and cultures (Hammer 2005). The focus of our study is the question which factors explain the acquisition of transnational human capital by way of studying abroad at school age. We assume that the use of and access to transnational human capital, like other human capital resources, is not distributed equally across society, so that some individuals are better able to respond to the changing requirements than others. That is also true for the opportunity to acquire transnational human capital as part of an international student exchange. This paper is devoted to the question of which inequalities exist in the access to student exchange and how they can be explained. Before we develop and empirically test our hypotheses, we will locate our study within the broader context of existing empirical education research.

a) Hardly any field in the social science has expanded as much in the last 20 years as empirical education research. This expansion has greatly improved our understanding of the association between education and social inequality. In the near future, a variety of refined analyses are expected for Germany due to the institutionalization of the National Education Panel. However, empirical education research concentrates almost exclusively on educational careers within nation state institutions, sometimes in a comparative perspective. This is in keeping with the methodological nationalism that Ulrich Beck has attested the social sciences. Transnationalization processes in educational careers are rarely taken into account. The narrow scope of educational research seems to us, in light of changing conditions produced by globalization, to make little sense.

b) The focus of education research on educational careers within nation state institutions results in a relative lack of knowledge about the acquisition and returns of transnational human capital. One exception seems to be migration and integration research, which deals mainly with the devaluation of human capital among people who migrate from one country to another. Migrant groups, however, are not the focus of our study, as will be explained

4 Several studies have been published in recent years on the internationalization of professional fields. These studies have used three different methodological approaches to identify the skill requirements of jobs: content analysis of job advertisements (e.g. Saifer 2009), surveys of companies (e.g. Lenske & Werner 2000) and the professionals themselves (e.g. Tucci & Wagner 2003). These studies are very informative in terms of the current changes to qualification requirements caused by globalization processes – often broken down by company size, regional distribution, industry, general skill level of the profession, and even by the specific activity. What is lacking, however, is an analysis of the changes in these requirements over time.

5 We looked at the ads from the Saturday editions in February. The data are used here only for illustration. We are aware that the job market of the FAZ does not mirror Germany’s labor market as a whole. In the context of the project of which this article is a part, several more newspapers are currently analyzed.

6 There is a second focus within the education research that leads to research blind spots. It is focused primarily on disadvantaged social groups (migrants, educated strata, lower classes) and has lost sight of what strategies have developed among the upper classes to gain educational benefits and distinguish themselves from others. The stay abroad of children is, in our interpretation, one of a repertoire of strategies used by the upper classes to give their children an advantage.
in more detail below. Although we investigate just one form of the acquisition of transnational capital, we assume, for reasons that follow, that we deal with central components of the process. Education research has shown in a variety of studies that educational biographies usually consist of a gradual accumulation of advantages and disadvantages (Hillmert 2009). Decisions made early in a person’s life are crucial in this respect, as they lead to different paths which can only be reversed with some difficulty later. The principle of accumulation of educational advantages seems also to apply to the acquisition of transnational capital, although research is still lacking in this area. Claudia Finger (2011) recently showed that early international experiences as school students are among the main factors in determining whether or not a person later studies abroad. The acquisition of transnational capital during university education abroad then lays the foundations for professional life. Parey & Waldinger (2011) show, for example, that international experience gained through Erasmus programs greatly improves the participant’s odds of working abroad later in their careers. Bachner & Zeutschel reach similar conclusions in a long-term study of student exchange between Germany and the USA. Participants develop skills and knowledge through study abroad which are highly relevant to their everyday and professional lives (Bachner & Zeutschel 1990, 2008; Zeutschel 2004).

c) The aim of our study is to explain the acquisition of transnational human capital through early international experiences. It is not to analyze the effects and possible advantages which may be obtained in later life. Even if the level of knowledge about the returns of transnational human capital is still limited, the results of the few available studies suggest that a stay abroad “pays off”. This payoff concerns not only the real skills (multilingualism, intercultural skills) acquired through study abroad and then applied in the labor market, but also the acquisition of symbolic capital. In our experience, the German academic system favors those who have degrees from US universities, simply because they carry greater prestige. One form of transnational human capital is multilingualism, the effects of which we have summarized elsewhere (Gerhards 2010). Azam et al. (2010) show that in India, too, multilingualism and English skills in particular have a strong impact on the income of respondents. Li & Bray (2006) show how Chinese students who studied in Hong Kong and Macau use this “overseas” experience in the domestic labor market. We show, in a new study (Gerhards & Hans 2012), that multilingualism significantly increases opportunities for political participation in a transnational public sphere.

2 Data

Our investigation is based on the data of the German socio-economic panel (GSOEP). The central dependent variable is the question of whether an individual has gone to school abroad for a long (over one year) or short (up to one year) period of time. Since the year 2000, students aged around 17 have been asked this question in the context of the reconstruction of their past biographies. The GSOEP waves from the years 2000 to 2010 were used as cross-sectional data sets. We compared all respondents who attended schools outside Germany with those who only attended German schools. The operationalization of all variables is described in the appendix.

The household structure in the GSOEP allows us to consider both the adolescents themselves and the characteristics of their households and parents as explanatory factors. The GSOEP data, in contrast to the official statistical data and that of the exchange organizations, are thus highly suitable for a theoretically grounded analysis of social inequalities in access to student exchange.

Students who are immigrants or children of immigrants were excluded from the analysis because the

Higher education levels enable better knowledge of foreign languages and thus indirectly give access to better job positions that are associated with a better income. For many professions, such as those in internationally operating companies, but also in politics and administration (see Mau 2007: 240), language skills are essential. Therefore, these have a direct effect on the chance of being successful in certain career fields. (d) Knowledge of foreign languages allows the development of social networks (social capital) which go beyond national borders and can be a valuable source of information, contacts and business. The acquired transnational social capital can again be converted to other types of capital. (e) In addition to the instrumental benefits mentioned, transnational capital has symbolic benefits: It promises social recognition and makes it possible to present oneself as a member of the transnational elite.

7 (a) The better the language skills (and the associated school grades), the easier it is to gain high educational certificates. (b) Multilingualism and intercultural skills increase the chance of acquiring foreign educational certificates, for example, at prestigious foreign universities. (c)
type of and motives for the stay abroad are frequently different from those of students without migration backgrounds. For non-immigrant students it can be assumed that their stays abroad take place either in the context of an exchange program or are caused by parents’ professional work abroad during their school years. Among immigrant students, there are additional possibilities: Stays abroad can also result from study periods prior to moving to Germany, or from parents or students returning to their country of origin after a certain period of time. Here, too, acquisition of transnational capital takes place. The results of migration and integration research suggest, however, that this capital has consequences different to those for German students who acquire transnational capital, for instance, through exchange programs. The number of respondents for our analysis is thus 2,836, of which a little more than 6 percent have attended a school abroad.

3 Social inequalities in access to transnational human capital

Transnational capital can be acquired in different ways. Alongside public schools and the use of private domestic education, a period spent abroad is surely the best way to acquire or enhance foreign language skills. In addition, other aspects of transnational capital are acquired in this way, for instance, intercultural skills in dealing with people and knowledge about another country. This is especially true if such a stay abroad happens early in life and involves the attendance of an educational institution abroad. There are several alternatives here, ranging from a stay abroad with the entire family as part of a parent’s career choices to organized student exchange programs. The latter are organized by non-profit or commercial organizations, and are most often directed at 15 to 18 year-olds who usually spend the tenth or eleventh school year abroad. The organizations implement application procedures with students and parents and usually deal with all aspects of the upcoming stay (arrival, registration at a school, accommodation in a host family or a boarding school, insurance etc.).

There are now several studies on the international mobility of university students (Teichler 2007; Heublein et al. 2008; Lörz & Krawietz 2011; Gonzáles et al. 2011; Finger 2011). Regarding secondary school students, there is little systematic investigation into the stays abroad beyond a raw description of the participants. In the 2004/05 school year, more than 10,000 German students spent a full or half a year abroad on an organized exchange, mostly in the US (Stiftung Warentest 2005). A study by Charlotte Büchner (2004) provides preliminary evidence that Gymnasium students are most likely to study abroad, especially those whose parents have a high level of education and a high income. Free time activities of the students also seem to play a role. However, the sample size of this study is quite small, and only bivariate analyses are carried out, while potentially relevant explanatory variables such as a student’s school performance are not considered. The value of this study is thus limited. Inequalities in the acquisition of education and degrees are the result of a variety of educational decisions in the course of life (Boudon 1974, 1977). As life-course research has shown, early decisions determine life paths which can be reversed at a later stage only with great effort (Becker & Lauterbach 2008). This general finding also applies to the acquisition of transnational human capital. A stay abroad as a school student is the earliest point at which transnational capital can be acquired in the course of an educational career, and this decision has considerable impact on the course of further education.

In the following, we will formulate systematic hypotheses about the relationship between study abroad and the students’ social background, testing them first by bivariate analysis and then with multivariate models. We assume that access to study abroad is based on similar inequality generating mechanisms that apply to education in general. Accordingly, we build on the relevant models and findings of the sociology of education. Additionally, we incorporate into the formulation of our hypotheses our yet to be published qualitative study on the motivations of parents to encourage their children to study abroad.

Educational disparities are usually measured in two ways: as differences in academic performance (grades, test results, etc.) and as differences in educational opportunities (the choice of a particular
school) (see Becker 2009a, 2009b). Our main dependent variable, the question of whether the respondent has studied abroad, measures transnational human capital not in the form of performance, but in terms of the opportunities for acquiring transnational human capital.

Since we have to rely on a secondary analysis of existing data, it is not possible for us to test a comprehensive theoretical model, as, for instance, rational choice theorists suggest (Goldthorpe 1996; Breen & Goldthorpe 1997; Becker 2009a, 2009b). There is, for instance, a lack of key variables necessary for the operationalization of ‘Subjective Expected Utility’-models of educational decisions, for instance the subjective assessment of costs and outcomes of schooling (Becker 2000, 2003; Lörz & Krawietz 2011).

In total, we distinguish six factors that may impact on the acquisition of transnational human capital: (1) the amount of different forms of capital available to a child’s family, (2) the investment of parents in their children’s education, (3) the capital available to the students themselves and (4) their level of commitment at school, (5) the opportunity structure for studying abroad, and finally (6) family conflicts which can drive children away from their home. For the analysis of the class-specific family socialization, we draw primarily on the work of Pierre Bourdieu (1971, 1973, 1982). We try to explain in detail and for every variable, with reference to the respective literature, why each should have the expected effect, and the causal mechanism underlying the connection, even if we are frequently unable to measure this directly.

3.1 Parental capital

The class structure of a society results from differences in the disposal of various forms of capital. As is well-known, Bourdieu (1982, 1983) distinguishes between economic capital (income and assets), social capital (social relationships) and cultural capital. The latter is further differentiated into three sub-categories. First, institutionalized cultural capital is imparted by the institutions of a society through educational or training certificates. Then, objectified cultural capital is manifested by possession of books, paintings and other cultural artefacts. Embodied cultural capital consists of the internalized ability to apply aesthetic criteria to the judgement of “things” and of the practice of a prestigious lifestyle. With this third category, Bourdieu refers primarily to classical highbrow culture. We assume that the class-specific differences in the availability of parental capital lead to differences in preferences and opportunities for a child’s upbringing and in this way to an “inheritance” and a reproduction of class structures.

a) Economic capital: While schooling in Germany, with its underdeveloped private school system, mostly takes place in public schools, and thus does not incur fees, this is not true for study abroad, which is usually associated with high financial costs. In 2005, one school year abroad cost between 3,800 and 7,500 euros (Stiftung Warentest 2005), with up to 30,000 euros for countries like the UK or New Zealand. Moreover, a study abroad often extends the overall period of schooling, meaning that parents must finance their children’s study for longer. Even with the same absolute costs, the relative costs for families with high incomes and assets are lower than for families with low economic capital. Accordingly, we expect that children from families with high economic capital are more likely to visit schools abroad than children from families with lower material resources.

We measure the economic capital of the families by their household incomes, weighted by household size. The positive correlation coefficient for this variable, shown in Table 1 which reports the bivariate correlations of all the explanatory variables with study abroad, supports our assumption that there is a relationship between economic capital and access to study abroad. Children from lower income parents go abroad much less often than children of high income parents.

b) Institutionalized cultural capital of parents: Parents’ education has a strong impact on the educational qualifications which a child will acquire. This is confirmed by the findings of many inequality and education research studies (Becker 2009a). In the literature, several reasons for this are discussed (see Lareau 2002; Becker 2009b). (a) Parents with higher levels of education have greater school-relevant knowledge and skills and can better support their children. (b) The motivation of highly educated parents to invest in their children’s education is higher than for parents with low education. Accordingly, they pay attention to training-related activities within and outside the family, control their children more thoroughly, are more involved

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9 As alternative indicators the GSOEP provides the assets and possessions (such as home ownership) of parents. Both are highly correlated with income, so we use only this here. The results are substantially the same as for income.
in the school, and have more contact with the teachers (Lareau 2002, 2003). (c) Educational institutions favor children from families with high education and discriminate against children from disadvantaged educational backgrounds (even when they perform at the same level).

We suspect that these mechanisms also play a role in the acquisition of transnational human capital, for the following reasons: (a) Parents with higher education know more about the opportunities of studying abroad and can support their children in preparation and handling problems better than parents with lower education. (b) The willingness and motivation (independent of the material resources) to send children abroad are more pronounced among parents with better education than parents from disadvantaged backgrounds. This is especially true under conditions of educational expansion (Becker & Schubert 2006). That a child attends a German Gymnasium is no longer a sufficiently distinctive feature of class difference. There is therefore pressure on the middle and upper classes to create new distinguishing features to maintain their increased status (Reimer & Pollack, 2010). Study abroad is, according to Lorz & Krawietz (2011), one of these more subtle features of the production of status differences. (c) Finally, one might suspect that class-based discrimination at school and in the application process for student exchange programs also has an impact. Educational institutions favor individuals who reflect their own values and standards most closely.

In fact, Table 1 shows that the higher the educational attainment of a child’s parents the more likely children are to go abroad. Obviously, highly educated parents tend to manage to gain their children access to the various opportunities of study abroad – whether because they tend to emphasize the importance of transnational capital and therefore are more willing to invest in it, because they are better able to obtain relevant information, or because their children are generally favored in the educational institutions. In the multivariate analysis we will examine whether the effect of parental education is only due to the fact that educated parents simply have more economic capital available due to their relatively better professional positions.

c) Embodied cultural capital of parents: The importance of embodied cultural capital (in terms of a highbrow cultural lifestyle) for the educational success of children has been demonstrated in a number of studies in several countries (Hartmann 1999; Lareau & Weininger 2003; DiMaggio & Mukhtar

Table 1  Study abroad – bivariate results

<table>
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<tr>
<th>Parents’ Capital</th>
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<tbody>
<tr>
<td>Economic Capital -Household Income</td>
<td>r = 0.17***</td>
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<tr>
<td>Institutionalized Cultural Capital – Formal Education</td>
<td>r = 0.19***</td>
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<tr>
<td>Embodied Cultural Capital – Cultural Events</td>
<td>r = 0.17***</td>
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<tr>
<td>Social Capital – Friends’ Education</td>
<td>r = 0.15***</td>
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<tr>
<th>Parents’ Investments</th>
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<tbody>
<tr>
<td>Involvement at Child’s School</td>
<td>r = 0.06**</td>
</tr>
<tr>
<td>Private School</td>
<td>r = 0.12***</td>
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<tr>
<th>Children’s Capital</th>
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<tr>
<td>Institutionalized Cultural Capital – Type of School</td>
<td>V = 0.21***</td>
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<tr>
<td>Embodied Cultural Capital – Grade in First Foreign Language</td>
<td>r = -0.11***</td>
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<tr>
<td>Embodied Cultural Capital – Participation in Cultural Activities</td>
<td>r = 0.11***</td>
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<th>Children’s Investments</th>
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<tbody>
<tr>
<td>Participation in Extracurricular Activities / Community Service</td>
<td>r = 0.10***</td>
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<tr>
<th>Opportunity Structure</th>
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<tr>
<td>Region (East Germany vs. West Germany)</td>
<td>r = -0.07***</td>
</tr>
<tr>
<td>Regional Presence of Student Exchange Organizations</td>
<td>r = 0.06**</td>
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<th>Conflicts within the Family</th>
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<tbody>
<tr>
<td>Conflicts with Parents or Siblings</td>
<td>r = 0.06**</td>
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</table>

Pearson’s correlation coefficients r / Cramer’s V are reported;
*p < 0.05; **p < 0.01; ***p < 0.001
Social capital refers to the resources that individuals can call upon from relationship networks and group affiliations. The larger an individual’s network and the more economic and cultural capital the other network members have, the greater the social capital of a member of a network. Social capital can be used to generate new relationships, to obtain relevant information and can thereby be used to acquire the other forms of capital (Bourdieu 1983: 190f.). Therefore, social capital is relevant to the acquisition of transnational human capital. A stay abroad is not a standard part of a child’s education, and accordingly, information about the different options for studying abroad, the considerable costs and bureaucratic hurdles and information about the experiences of other students are not “automatically” available, but must be obtained by parents or children. In this respect, networks with people with a high educational status are useful, because these people or their children are likely to have been abroad and often have access to useful information. Additionally, the importance of overseas experiences for the child’s future is partially the result of a process of social definition and thus depends on the particular reference group. Our qualitative interviews show that parental support for study abroad, especially in educated groups, goes back to the fact that “many others also do it”.

As an indicator for measuring social capital, the average education of the parents’ closest associates is available. Unfortunately, networks that extend beyond the most significant contacts (weak ties) have not been accounted for. Despite this limitation, the bivariate findings suggest that social networks can promote the likelihood of studying abroad.

3.2 Investment of parents in their children’s education

Even if there exists a causal relation between class status and the motivation and ability of the parents to invest in the education of the children, this is not deterministic. Studies in the field of migration studies have shown for instance that some parents do, despite very few resources, make great efforts and investments in the education of their children so that they “will be better off later.” It therefore makes sense to consider the investments of parents as explanatory factors for studying abroad.

We suspect that parents who invest intensively in their children’s education in general are also prepared to invest more resources in the preparation of a stay abroad, thus increasing the probability that the child will study abroad. We assume also that the effect of the resources of the family will be reduced by taking into account the investment variables, but still remains pronounced.

The nature of the dataset does not permit us to operationalize the specific investments of parents in...
transnational human capital. However, the GSOEP contains questions about generalized educational investments by parents, including, for example, the extent to which they are involved in their children’s schools. Also, a positive response to the question of whether a child has ever attended a private school can be characterized as a conscious choice of school and thus interpreted as an investment of parents in their children’s education.

As expected, Table 1 shows that children of engaged parents more frequently go abroad, though the association is very weak. The variable ‘children attending private schools’ has a greater effect. This could be due to several reasons. First, the choice of a private school is a conscious decision that can be understood as a generalized investment in education. Second, it is likely that private educational institutions offer more opportunities to their students to study abroad, both indirectly, through targeted information as well as directly, through exchange programs.

### 3.3 Capital resources of the child

Education research has shown that the resources and investments by parents pay off. But even here there is no deterministic relationship. One can assume, therefore, that the capital of the children has an independent effect on the probability of studying abroad.\(^\text{10}\)

**a) Institutionalized cultural capital of the child:** In the two or three tier, vertically differentiated school system in Germany, the level of certified education manifests itself first of all in the question of which type of secondary school the child attends: Real Schule, Hauptschule or the highest academic tier, the Gymnasium. Students who attend a gymnasium may increase their opportunities for going abroad in many ways: (a) The exchange organizations target their programs at gymnasiums, meaning that the supply structure is better. (b) The availability of knowledge favoring study abroad (e.g. language and foreign culture knowledge) is greater for gymnasium students than for students at the other school types. (c) For gymnasium students it is easier to integrate a longer stay abroad into their school schedule: They can easily skip one school year (especially in states with gymnasium which extends to the thirteenth class). Students of the other school types are often too young to go abroad when they might have an opportunity or just about to graduate. (d) Gymnasiums offer more than the other schools types in terms of programs which make study abroad easier, for example, bilingual education and partnerships with schools abroad. Thus, for example, 62 percent of the 104 gymnasiums in Berlin have partner schools abroad, while only 22 percent of the 130 other schools do.\(^\text{11}\) The gymnasium therefore offers a particularly good opportunity structure for study abroad.

Attendance at a gymnasium, however, as many studies have shown, is decisively influenced by the capital and investments of parents, especially by their cultural capital. We therefore expect that the influence of gymnasiums on a stay abroad is partly due to the capital and investment decisions of the parents; but on the other hand, it is most likely that there is also a direct effect of gymnasium attendance on the acquisition of transnational human capital. We will test this below with different analysis strategies (multivariate regressions and effect decompositions).

With respect to cultural capital, we believe that, in addition to the school type, the performance of students at school increases the probability of study abroad (Lörz & Krawietz 2011). Thus, grades are a relevant selection criterion for exchange organizations. This is particularly true for performance in foreign language classes. As a stay abroad usually means going to a country in which a different language is spoken, strong foreign language skills also reduce the anticipated transaction costs and thus improve the likelihood of a stay abroad. In order to measure language skills, we draw on the school grades of children in their first foreign language.

The bivariate findings (see Table 1) confirm our hypothesis. The grades achieved in a foreign language have the expected effect: The better the grades, the more likely a visit to a school in another country.

**b) Embodied cultural capital of the child:** Di Maggio & Mohr (1985) show that students with high embodied cultural capital are able to interact more

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\(^{10}\) The GSOEP data include information on the economic capital of the students (e.g. pocket money). We believe it is not plausible that this influences the probability of studying abroad, as the cost of studying abroad are out of proportion to a relatively small amount of pocket money. The situation is different with the social capital of the students. Our qualitative study suggests that young people’s interest in studying at a school abroad is not least due to specific dynamics of friendship circles. Unfortunately, the GSOEP data does not make it possible to verify this.

frequently with their teachers and are therefore taken more seriously. We suspect that highbrow cultural habits which are evaluated by teachers and gatekeepers as positive are also significant in the explanation of transnational human capital. For many organizations that specialize in the placement of students, a personal interview is a prerequisite for study abroad. We assume that, during the interview, children of the lower classes suffer disadvantage due to their habits of language, dress, etc.

As with the parents, we believe that embodied cultural capital is manifested in certain highbrow cultural activities. As an indicator, we use, therefore, the question of how frequently the children read, play music, perform theatre or dance. Table 1 shows that young people are indeed more likely to go abroad the more often they pursue cultural activities. Surprisingly, the relationship is somewhat smaller than the effect of the cultural activities of the parents. This may indicate that parents, rather than young people themselves, often initiate a stay abroad or make the final decision about it. In addition, family socialization results in a strong correlation between the highbrow cultural orientation of parents and their children. Only the multivariate analysis will provide evidence of whether the orientation of children towards highbrow culture has an independent effect on study abroad.

### 3.4 Commitment of children

A child’s stay abroad, especially without the child’s family, requires children to possess a high degree of autonomy, self-confidence, and organizational skills. Ultimately, these young people will be faced with unfamiliar surroundings and cultures during a stay abroad and, in case of problems, must deal with them alone or be able to seek help independently. Not all young people are equally prepared for such challenges. It can be assumed that adolescents who frequently organize things independently at home, for instance undertaking volunteer work and taking responsibility for others, are very well placed to meet the requirements of a stay abroad (Autorengruppe Bildungsberichterstattung 2010). This factor also plays a role for providers of student exchange programs in assessing the suitability of young people and in the awarding of scholarships.12 We therefore assume that volunteering has a positive effect on the probability of studying abroad. This assumption is confirmed by the bivariate analysis.

### 3.5 Opportunity structure

No matter how good the capital resources of parents and their children, without the appropriate supply structure, these resources cannot be brought to bear. The supply structure is mainly composed of organizations that specialize in the placement of stays abroad. A market has emerged consisting of a large number of suppliers who organize students’ time abroad and charge for their services. These exchange organizations are not equally present everywhere. In East Germany, for instance, as well as in rural regions, they are underrepresented. The density of exchange organizations should, according to our hypothesis, influence the probability of studying abroad.

Differences between East and West Germany are to be expected for additional reasons. First, the parents of East German students had less opportunity than the West German parents to have their own experiences abroad because of restrictions in the former GDR. This could result in them being less aware of both the opportunities and the benefits of study abroad. Second, a recent study on the language skills of young people showed that students in Bavaria and Baden-Württemberg have much better reading and listening skills in English than their peers from East Germany – because, among other reasons, these states lack appropriately qualified teachers (Koller et al. 2010). Moreover, in West Germany there are also more bilingual schools which encourage the study of other subjects in foreign languages.13 Obviously, the opportunity structures for obtaining knowledge of foreign languages differ greatly depending on the place of residence of the student. Since foreign language competence is a favored foreign residence requirement, the better opportunity structure should also affect the acquisition of transnational human capital.

Indicators of different opportunities for students to go abroad are the region of residence (East or West Germany) and the number of providers of student exchange programs in the state in relation to the number of pupils.

Table 1 shows that in states in which branches and advisors of student exchange programs

12 See for example http://www.afs.de/schueleraustausch/schuljahr-a-halbjahr/stipendien.html or http://www.yfu.de/ins-ausland-gehen/sonderstipendien#ehrenamt.

13 On the number of bilingual kindergartens and schools in the individual states see http://www.fmks-online.de/download.html.
are well represented, more students go abroad. A second observation is that there are differences between East and West Germany in the frequency of visits abroad. This could be due both to the reduced presence of providers in the East as well as the more limited experience of teachers and parents with foreign languages and countries.

3.6 Study abroad as a way of detachment from the parental home

Study abroad usually takes place at ages 16 to 18. In terms of developmental psychology, this is the adolescent phase. Puberty and adolescence are characterized by an increasing detachment from parents and an increase in non-family orientation among young people. This separation process is often not conflict free, also because, among other things, the parents’ need for control may not change with the development of the child. A stay abroad can be a way for a child to escape from the control of parents and test their own independence. Trips abroad are a legitimate means of separation from their parents because they are socially accepted and associated with prestige.

As an indicator of possible conflicts within the family, we use the question of how often the children are in dispute with their parents and siblings.14 Table 1 confirms the assumption that young people tend to go abroad more often if they have conflicts with their parents and siblings.

3.7 Multivariate analyses

Most of our theoretical assumptions were supported by the bivariate findings. The multivariate analyses below serve to test whether the identified associations also hold when other factors are controlled. The analyses were carried out in three steps: (1) First, separate logistic regression models are calculated for each individual hypothesis complex. (2) Then all explanatory factors are tested in a common model. (3) Lastly, we explain, through a decomposition of effects, how exactly parental capital affects study abroad.

(1) Model 1 in Table 2 contains the explanatory variables related to the parents, that is, their capital and their investments. With respect to economic and cultural capital, the results of the bivariate analyses are largely confirmed. The positive and significant effect of income shows that the probability of study abroad increases with the income of the parents. An increase in income by 1,000 euros increases the odds of attending a foreign school by more than 40 percent. For a student who exhibits average values in all other variables this corresponds, for example, to a change in the probability to study abroad from 5.8 to 8 percent if the equivalent household income is 2,500 rather than 1,500 euros. Parents’ education continues to have a significant effect as well. As the educational attainments of both parents increases by one level (e.g. from *Hauptschule* to *Realschule*), the odds of a stay abroad increase by 25 percent. This relationship is independent of the fact that more educated parents have on average higher economic capital and also differ in other respects (highbrow cultural preferences, social networks, etc.). The results of the bivariate analysis concerning the embodied cultural capital and social capital of the parents are not confirmed, as well as, in part, their investment in the education of children. The corresponding coefficients do indeed point in the expected direction, but they are not significant. This is due to the fact that highly educated parents tend to exhibit high values in both cultural orientation (r = 0.54) and better educated friends (r = 0.61) and that their children are more engaged than those of parents with lower education. The effects of social capital and engagement in school are thus explained by the education of the parents. This is not true for attendance at a private school, which still has a somewhat strong independent effect. The impact of private schools on a stay abroad is not only due to the investment by parents, but also to the fact that private schools encourage their students to travel abroad more than public schools. In total, the pseudo-$R^2$ of the model is 0.112.

Models 2a and 2b examine the influence of the cultural capital of the child and their involvement in the school. In model 2, the foreign language score of young people is used as well as their involvement in the school and their cultural activities. The model fit is lower than that of the first model, but there are nevertheless substantial effects which confirm the results of the bivariate analyses. Thus, the probability of study abroad is lower for students with bad grades in foreign languages. Students with a grade of 3 in their first foreign language have a 4.7 percent (absolute) lower probability of having been abroad than students with a grade of 1 (best possible grade). Conversely, the probability of studying abroad rises among children who read frequently

14 In addition, we examined whether personality traits of adolescents (“*Big Five*”, see Gerlitz & Schupp 2005), have an impact on study abroad. This was not the case.
or play music. Commitment at school also has a significant effect. Compared to students who are not engaged, for those who are active as class representatives, student body representatives or the like, the odds to go abroad are 2.6 times as high. This corresponds to a probability of 7.2 percent of attending a school in another country, compared to only 2.9 percent among those who are not engaged.

In model 2b we further controlled for whether students attend a gymnasium or different types of secondary school. The increase in the value of pseudo-$R^2$ to 0.144 shows the high explanatory power of these variables. When controlled for other indicators, gymnasium students have an 8 percent greater probability of going abroad than other young people. There could be several reasons for this. Not only is

<table>
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<td>(1) Parents' Capital and Investments</td>
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<td>Parents' Material Capital (HH-Income in 1000 euro)</td>
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Logistic regression models. Odds ratios are reported. Standard errors in parentheses. Final column: marginal effects for model 5. Clustering of children within households was taken into account in the estimation of standard errors. Year of sampling / GSOEP wave was controlled for in model 5 (Effects are not reported).

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; + $p < 0.1$
the embodied cultural capital among gymnasium students higher – the fact that highbrow cultural activities have no significant effect once controlled by gymnasium education indicate this. Rather, it appears that the opportunity structure for gymnasium students is better, since many exchange programs are more likely to target them and since they can easily skip a school year. Foreign language knowledge as well as the commitment to school both have significant effects in this model.

In model 3, the role of opportunity structures is reviewed. The bivariate findings are confirmed: The more present the organizations are in a state, through branches and representatives, the more likely young people are to go abroad. This alone does not explain the differences between East and West German states, however. Even under the control of the opportunity structure, the probability of West German students going abroad is more than 4 percent higher than the probability of East German students. This might be due to the different previous transnational experiences of East and West Germans, the quality differences in foreign language education, and of course to the inferior material resources of the East German parental homes. Compared to models 1 and 2 (capital of the parent or child), the explanatory power is lower.

Finally, in model 4, the role of relationships within families is considered. The positive coefficient indicates that children are more likely to go abroad, the more conflict they have with their parents and siblings. Again, the explanatory power is relatively low.

(2) Model 5 provides information on how the different variable complexes have mutual impacts and how this affects their impact on the chances of going abroad. Accordingly, it includes all variables and also controls for the gender of the child as well as the survey year.

The results illustrate the important role of gymnasium attendance. Since, in contrast to model 2b, the properties of the parental home are controlled and there is known to be a link between the capital of the parents and gymnasium attendance, the corresponding effect is somewhat smaller than in model 2b. In model 2b, a part of the effect of gymnasium attendance is therefore due to differences in parental homes. Still, the odds of going abroad are, for gymnasium students, four times higher than for others under control of other variables. This represents an absolute increase in the probability to go abroad of 6 percent.

Compared to the bivariate analyses and the above regression models, there are also evident changes in the effects of other explanatory factors. Under the control of other variables, particularly gymnasium attendance, economic capital of the parents, school grades and the commitment of the children, family relations, and regional opportunity structure in the form of supplier presence, and of residence in East and West Germany still have substantial and significant effects on the likelihood of academic study abroad. The latter suggests that East German students going abroad is rare not only because there are fewer providers or because their parents have less economic resources. An alternative explanation is that West German teachers and parents themselves have greater experience abroad and are therefore more encouraging of their children. In addition, children who go to school in Western states probably have more role models among teachers, parents, and friends who have been abroad. Finally, differences in the quality of language education also play a role.

Compared to models 1 and 2, the coefficients of highbrow cultural activities among children (as discussed in the comparison of models 2a and 2b) and the parents’ education are no longer significant. The latter is due to the strong correlation between the educational background of the parents and gymnasium education among children. However, the capital of the parents also acts directly on the likelihood of a stay abroad. When the variables measuring parental capital are removed from model 5, the pseudo-$R^2$ drops to 17.7 percent. Even if we calculate a similar regression model exclusively for gymnasium students, the previously significant effects hardly change.

(3) Due to the relevance of parental capital on the one hand and the important mediating role of the gymnasium on the other hand we investigate the interaction of both in greater detail. To do so, the overall effect of parental capital is separated into

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15 Bivariate analyses show slight differences between boys and girls. We have no explicit hypothesis for this, but can at least control for the effect. Multivariate analysis no longer shows any gender differences. The proportion of those going abroad also varies between survey years, which has to do primarily with the different sample composition in each year, and is not of substantial interest. Therefore, the effects of the survey years (as dummy variables in the model) are not reported.

16 The influence of parents’ income and the commitment of the child are then somewhat smaller, while the influence of grades, opportunity structure and conflict within the family is a little larger.
direct and indirect effects, acting through other factors such as gymnasium education. While such decompositions have long been widely used for linear regression models, they were not possible for logistic models due to the rescaling which occurs when variables are added to or dropped from a model. The recently developed KHB method (Karlson et al. 2012; Karlson & Holm 2011) corrects for this rescaling, and thus allows for the decomposition of logistic regression models. Using the KHB method, we split the total effects of income, education, highbrow cultural orientation, and parents’ networks into direct and indirect effects. All the other variables are considered possible mediating factors, although we are particularly interested in the mediating role of gymnasium attendance. The estimation was developed in line with the Stata module KHB developed by Kohler et al. (2011); the results are given in Table 3.

The direct effects estimated here are equivalent to the effects of parental capital in model 5, while the overall effects lead back to a model without the mediating variables (children’s grades, gymnasium education, conflict in the family, etc.). We find that direct effects are much smaller. Thus, about two-thirds of the effects of education, highbrow cultural orientation and the networks of the parents are due to the fact that children of educated parents (with educated friends) tend to attend gymnasium, get good grades, and exhibit social engagement. Most of the indirect effects are due to attendance at a gymnasium. Thus 65 percent of the indirect effect of parents’ education, i.e. 44 percent of the total education effect, are due to the fact that as parents’ education increases so does the likelihood of attendance at a gymnasium, which in turn promotes study abroad. Regarding highbrow cultural orientation and the networks of parents, gymnasium attendance is the single most important mediating factor as well. The second most important mediating factor (with about 20 percent of the indirect effect) is residence in East or in West Germany. The direct effects of parental education, high culture and social networks are, in contrast, quite low.

The results related to the economic capital of the parents are quite different. Nearly two-thirds of the overall effect is due to a direct effect, while only 10 percent can be explained by the fact that the children of richer parents tend to attend gymnasiums. Consequently, high-income parents are more likely to enable their children to study abroad, regardless of the school children attend to, or how successful or socially engaged they are in school. In addition, more than half of the indirect effect of income and around 20 percent of the total effect is due to the fact that the East German parents earn less and send their children abroad less often.

Parental capital acts both directly and indirectly on the probability of studying abroad. Firstly, it affects the likelihood of children attending a gymnasium. This, in turn, serves as a catalyst by providing a particularly good opportunity structure for a temporary stay abroad. Then, in addition, there are the direct effects of the capital of the parents, especially their material resources.

### Summary and outlook

In the context of globalization processes, foreign languages and intercultural skills are becoming increasingly important. These skills which we refer to as transnational human capital may be acquired in different ways. A stay abroad as a student is, due to its early influence in the course of an educational career, one of the best opportunities for acquiring transnational human capital.

We assumed that the availability of transnational human capital is, like that of other human capital re-

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17 With the exception of the gender and survey years, for which a mediating role is not plausible theoretically or empirically.
sources, distributed unequally between social classes. Some people can better respond to changing requirements which result from globalization processes than others. We have distinguished six different variable complexes which explain unequal access to transnational human capital: parental capital and resources, the investment of parents in their children’s education, the capital equipment of the students and their school commitment, opportunity structure, and, finally, family conflicts. While the bivariate findings confirm all hypotheses, the multivariate analyses indicate that gymnasium attendance has an important filtering function, insofar as some of the effects of the resources of the parents and the child become insignificant. This finding is consistent with other findings from education research. Access to gymnasium, the highest level of Germany’s multi-tiered school system, is highly dependent on the social class of the parents. With early selection into a gymnasium, the course for further education is set. This extends to the acquisition of transnational capital in the form of study abroad. Additional explanatory factors include the presence of institutions that organize exchange programs, the commitment of children, family conflicts, and, above all, the material resources of the parents.

The importance of parents’ economic capital is particularly noteworthy. The German education system is up to now largely state-funded, and there are rarely fees which families would have to pay. With study abroad, the situation is very different. The cost is considerable and there are few scholarship opportunities. Thus, the income of the family is a crucial factor for the acquisition of transnational human capital. It is particularly interesting that the effect of economic capital on study abroad is largely direct rather than mediated through the gymnasium.

These findings underline a general trend of gradual change in the German education system, in which the importance of material resources has undergone a renaissance. Firstly, from 1992 to 2010, the number of private schools in Germany has risen by nearly 70 percent, with the proportion of private students rising from 4.8 to 8.2 percent (Statistisches Bundesamt 2011). Secondly, the field of privately funded tuition has gained great momentum. Between one quarter and one third of all students have already made use of paid tuition. Private schools and tutoring are relevant to questions of inequality because they are associated with better educational opportunities. At the same time, children from high-income families enjoy better access to private schools and paid tuition. As we have shown, the same is true for the acquisition of transnational capital.

Appendix: Variables used in the analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Meaning</th>
<th>Distribution in % / mean (standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>Did you ever go to school in a country other than Germany?</td>
<td>0 (no): 94 % / 1 (yes): 6 %</td>
</tr>
<tr>
<td>Parents’ Economic Capital</td>
<td>Household Income, weighted by household size, in 1,000 euros</td>
<td>1.17 (0.65)</td>
</tr>
<tr>
<td>Parents’ Institutionalized Cultural Capital</td>
<td>Mean level of formal education of both parents; between 0: no formal education and 7: university degree</td>
<td>3.57 (1.16)</td>
</tr>
<tr>
<td>Parents’ Embodied Cultural Capital</td>
<td>Frequency of visits to cultural events (theatre, concert, lecture; 1: never, 2: sometimes, 3: at least monthly); mean of both parents 2001 to 2009</td>
<td>1.84 (0.48)</td>
</tr>
<tr>
<td>Parents’ Social Capital</td>
<td>Mean level of formal education of three most important friends of mother &amp; father (1: no degree to 4: Abitur (qualification for university entry))</td>
<td>2.94 (0.59)</td>
</tr>
<tr>
<td>Private School</td>
<td>Did you ever go to a private school?</td>
<td>0 (no): 94 % / 1 (yes): 6 %</td>
</tr>
<tr>
<td>Parents’ Involvement</td>
<td>Involvement of parents at child’s school – sum of 4 different activities (e.g. in parents’ committees) (0: no activity to 4: all 4 activities)</td>
<td>1.76 (1.01)</td>
</tr>
</tbody>
</table>

Variable | Meaning | Distribution in % / mean (standard deviation)
--- | --- | ---
Child’s Institutionalized Cultural Capital – Type of School | School type currently attended or school type from which degree was obtained (if child has already finished formal education). Explanation: Hauptschule and Realschule qualify for vocational schools after 9 or 10 years of schooling; Gymnasium schools qualify for university entrance after 12 or 13 years of schooling, Gesamtschulen are comprehensive schools, Berufsschulen are vocational schools. | 1 (Hauptschule): 17 % 2 (Realschule): 32 % 3 (Gymnasium): 40 % 4 (Gesamt-, Berufs-, Fachoberschule): 10 %
Child’s Cultural Capital – Foreign Language Grade | Child’s grade in first foreign language, between 1 (best grade) and 6 (failed). | 2.93 (0.85)
Child’s Embodied Cultural Capital | Frequency of the following cultural activities: reading, dancing / playing theatre, actively playing music (between 1: never and 5: daily) – mean for all activities | 2.52 (0.93)
Child’s Investment | Participation in extracurricular activities or community service | 0 (no): 31 % 1 (yes): 69 %
Region | East or West Germany | 0 (West Germany): 70 % 1 (East Germany): 30 %
Presence of Exchange Organizations | Regional presence of student exchange organizations (headquarters, branch offices and staff) in a federal state, weighted by the number of students | 1.08 (0.33)
Conflicts within the Family | Frequency of conflicts with parents and siblings (between 1: never and 5: very often), mean | 2.80 (0.74)
Sex | Sex of the child | 0 (male): 52 % 1 (female): 48 %

References

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