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SOTSIAALTEADUSTE DISSERTATSIOONID

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KRISTINA LINDEMANN

**STRUCTURAL INTEGRATION OF YOUNG RUSSIAN-
SPEAKERS IN POST-SOVIET CONTEXTS:
EDUCATIONAL ATTAINMENT AND TRANSITION
TO THE LABOUR MARKET**

Tallinn 2013

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STRUCTURAL INTEGRATION OF YOUNG RUSSIAN-SPEAKERS IN POST-SOVIET CONTEXTS: EDUCATIONAL ATTAINMENT AND TRANSITION TO THE LABOUR MARKET

Institute of International and Social Studies, Tallinn University

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Lindemann, K. (2011). The Labour Market Success of Ethnic Groups: the Reality and Perceived Perspectives. In: E. Saar (Ed.). *Towards a normal stratification order. Actual and Perceived Social Stratification in Post-Socialist Estonia*. Frankfurt am Main: Peter Lang Publishers House, pp. 283–307.

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Lindemann, K. (2011). Explaining Different Returns from Human Capital in Labour Market. In: Vetik, R. and Helemäe, J. (Eds.). *The Russian Second Generation in Tallinn and Kohtla-Järve: The TIES Study in Estonia*. Amsterdam: University of Amsterdam, pp. 93 –118.

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1. INTRODUCTION

This dissertation examines the structural integration of young Russian-speakers in post-Soviet contexts. I focus on Russian-speakers who have been born in the host country and attained their education during the post-Soviet time. Structural integration can be understood as the outcome of individuals' actions and attainments. In general, the structural integration of ethnic groups refers to inclusion in education, the labour market, the housing market and political institutions (Thompson and Crul 2007). I focus my research on performances at school, educational transitions and labour market entry. In post-Soviet contexts¹, Estonia is the central theme of my research accompanied by comparisons with Latvia and Ukraine. The key questions are how ethnicity and language skills influence an individual's educational attainment and labour market outcomes and how these influences depend on contextual effects, such as linguistically divided educational systems and linguistic contexts in the labour market. I compare Estonia with Latvia because the language of instruction in schools in both countries is divided between the host nation's language and Russian². I compare Estonia with Ukraine to study how the linguistic context of the labour market influences an individual's access to their first job. In addition, I contrast different Estonian regions to explore the role of local contexts on the outcomes of structural integration.

Compared to Western European countries there is much less research in Eastern Europe about the role of language skills and ethnicity in the processes of educational attainment and labour market entry. Russian-speaking minority populations comprise substantial proportions of the national populations in Estonia, Latvia and Ukraine and the status of this group continues to pose many questions in these three post-Soviet societies. In contrast to the classic paradigms of labour market immigrants in Western European countries, Russian-speakers migrating to these three countries during the Soviet period did not have lower levels of either education or occupational position than the native populations. As Russian language in these countries became dominant in several life spheres Russian-speakers did not have to learn a new language nor did they have to compete with the native populations for the jobs because labour allocation was organised by the Soviet command economy. However, ethnic relations in these three societies changed significantly after the collapse of the Soviet Union, especially in Estonia and Latvia, resulting in a new minority status for Russian-speaking community. The difficulties that immigrants often face in Western labour markets, such as a lack of host country language skills or useful social networks became real for many Russian-speakers in Estonia and Latvia. Therefore, an important question is whether mechanisms of

¹ In this work, context refers to a social environment or social structures in which action of individuals is embedded.

² Henceforth I refer to these systems as being 'linguistically divided educational systems'. However, the language of instruction is partly the language of the host country in many ethnic-minority language schools.

structural integration, which exist in many Western European countries, also apply to second and later generation Russian-speakers in post-Soviet contexts.

Most research agrees that proficiency in the host country's language has a key role in the process of integration, as being a medium of everyday communication, a symbol of belonging and a resource in both the educational system and the labour market (Esser 2006). In several post-Soviet societies, Russian-speaking minorities have the opportunity to attend a Russian school where education is partly in Russian³. Although it is often supposed that the lower school performance of ethnic minority students is related to language difficulties, scant research exists about educational performances and transitions within the education system in nations with linguistically divided school systems. The dissertation also contributes to previous, albeit scant, research into the issue of the influence of language proficiencies on labour market entry of second and later generation immigrants. I research jointly the effects of ethnicity as well as proficiency in the languages of the host country and the minority on labour market success in various local and national contexts. Thus, in addition to the relevance of learning to speak the host country language, the question is also whether or not proficiency in the ethnic minority language affects the opportunities of the youth populations of both the ethnic minority and the ethnic majority. In Estonia, particularly, ethnic-linguistic segmentation in the labour market, education system and residential areas provides a contrasting context for researching the importance of ethnicity and language proficiencies.

My dissertation seeks an answer to following questions:

- (1) What roles do language proficiencies and ethnicity have in performances in school, educational transitions and labour market entry? How important is social background for ethnic groups, particularly in the process of educational attainment?
- (2) How do a linguistic division in an educational system and the linguistic context of a labour market affect the outcomes of structural integration? How do these contextual factors interact with language skills and ethnicity in their influence on educational attainment and labour market entry?

Four studies form the foundation for this dissertation. The logic of the analysis follows the life-course of individuals. I start with analysing the *school performance* at the age of 15 years, which occurs just prior to making the choice between general and vocational secondary education in Estonia and Latvia (**Study I**). This research explores how the opportunity to study in a mother-tongue in a linguistically divided education system affects an individual's educational performance and how social

³ I use the term 'Russian school' for public schools in Estonia and Latvia where the languages of instruction are partly Russian and partly the language of the host country. Mostly students whose mother tongue is Russian attend these schools. However, the language of instruction was Russian in these schools during the Soviet period.

background and school environment affect performance of ethnic minorities in such school system. I compare Estonia with Latvia in order to discuss how a specific societal context shapes the achievements of ethnic minorities. Next, I study *educational transitions* to upper secondary and higher education in Estonia (**Study II**). The main questions are whether or not educational transitions differ for Russian-speakers and Estonians and how these differences relate to social background, Estonian language competence and citizenship and how the educational system might contribute to the emergence of ethnic inequalities. Finally, educational attainment has significant impact on employment opportunities even though educational success might not always be matched by success within the labour market. Education as well as language proficiencies should be particularly important for labour market entrants as they do not have any significant work experience. Therefore, I analyse *transition from school to work* (**Studies III and IV**). These studies focus on the roles of language proficiencies and ethnicity in the labour market entry process. I discuss the relevance of societal context in a comparative contrast between Estonia and the Ukraine (Study III) and the significance of local ethnic-linguistic environments in a comparative study of Estonian regions (Study IV).

2. THEORETICAL FRAMEWORK

2.1. INCLUSION OF ETHNIC GROUPS IN SOCIETY

The *classical assimilation theory* envisions the incorporation of ethnic minorities into the host nation's society as a rather uniform linear process in which immigrants and their children integrate more or less swiftly into the dominant mainstream (Alba and Nee 1997). In particular, assimilation is considered to be part of the process of upward mobility across immigrant generations. In order to achieve this outcome, immigrants and their children undergo acculturation (i.e. acquisition of the host country's language and culture), which is often accompanied by or precedes structural assimilation into the formal organisations of the dominant society (Gordon 1964). The contemporary version of assimilation theory emphasises that mainstream society has become increasingly more diverse and thus, assimilation most importantly involves the decline of ethnic distinction in the life chances of individuals (Alba and Nee 2003). In general, evidence in Western Europe suggests that even ethnic minorities with greater disadvantages experience at least some upward mobility in the second generation (Thompson and Crul 2007; Heath et al. 2008).

In contrast, proponents of *segmented assimilation theory* distinguish three possible modes of incorporation into the host society (Portes and Zhou 1993; Zhou 1997; Portes et al. 2005; Haller et al. 2011). The first is the classic pattern of straight-line assimilation into mainstream society across generations, which particularly applies to high-skilled minorities. The second is downward assimilation into a permanently impoverished population at the bottom of society, which is a risk for ethnic groups that have few resources and face more prejudice. The third is assimilation into the own ethnic community that might contribute to upward mobility. Retaining strong contacts with an ethnic community might be the best strategy for capitalizing material and moral resources if children of immigrants have access only to the lowest strata of mainstream society (Portes and Zhou 1993). This is particularly so, as the values in the ethnic group may promote the adaptation of the second generation even in unfavourable situations and children might benefit from growing up in an ethnic community (Zhou 1997). However, strong ties with an own ethnic group require investment into resources specific to this group. Esser (2004) argues that investment in ethnic resources may turn into a mobility trap because these resources are only accessible and usable in own ethnic community. Therefore, ethnic resources are clearly less efficient than the resources specific to host society as their usability depends on the size of the ethnic community. Investment into ethnic resources might lead to ethnic segmentation, which means inclusion into the ethnic group but exclusion from the host society. However, multiple inclusions are another possible outcome, which involves an individual's inclusion to both ethnic group as well as to host society (Esser 2006).

Thompson and Crul (2007) find that the largely American theoretical debate about segmented assimilation has focused too much on immigrant group and persistently

underestimated the importance of the *national context*. In a comparison of different European countries, Crul and Vermeulen (2003) emphasise the clear signs of polarisation within some ethnic groups in terms of integration outcomes. Thus, the comparative integration context theory suggests that although agency of individuals and groups is important as they challenge particular opportunities and structural configurations, research needs to focus more attention on institutional arrangements in education, the labour market, housing and legislation. Even if the outcomes of integration are similar in two countries, the mechanisms and institutional settings behind them might be very different (Crul and Schneider 2010).

Nevertheless, research does agree that *reception context* is crucial for integration. Key aspects include the attitudes of authorities and the general public, government policies, the state of economy in the areas immigrants settle and employers' preferences in local labour markets (Haller et al. 2011). Political climate, stereotypes of groups and the ideals of integration in public debate differ greatly across countries (Crul and Schneider 2010). Moreover, the access to citizenship has practical consequences, particularly for employment in the public sector that could be a channel of advancement for ethnic minorities (Heath and Cheung 2007).

Although the societal context provides an important framework for educational attainment and labour market entry, the integration stems from action and attainments of individuals. Thus, the next section discusses the importance of individual level mechanisms and their interaction with contextual influences.

2.2. INTEGRATION AS AN OUTCOME OF INDIVIDUAL ACTION

2.2.1. Mechanisms explaining educational attainment and labour market entry

Sociological research has elaborated the mechanisms that explain how individual action relates to inequality in educational and occupational attainment. These general mechanisms are also useful for explaining how the action at the individual level, constrained by structural effects, gives rise to ethnic differences in education attainments and labour market outcomes.

Boudon (1974) separates the concepts of *primary and secondary effects* to explain the influence of social background on educational attainment. The primary effect is the effect of social background on academic performance while secondary effect is the effect of social background on students' educational choices. The primary effect could result from genetic inheritance, early socialisation and variations in cultural, economic or social factors that relate with home environment and parental support (Erikson and Jonsson 1996). Mechanisms operating to create the secondary effect are typically different from those operating to create the primary effect because educational transitions are more likely to result from intentional forward-planning decisions (Jackson et al. 2012). The *rational choice model* developed by Breen and Goldthorpe (1997) assumes that the patterns of educational choice reflect the action of actors – children and their parents – that can be understood as rational. Actors

evaluate the costs and benefits of possible alternatives and the probabilities of success and failure. These evaluations are conditioned by constraints and opportunities that actors in different societal positions face. The rational choice model emphasises that in addition to actual academic performance, subjective beliefs about the chances of success and own abilities are important for educational choices. Also the value or utility that actors attach to educational outcomes influences educational decisions. In general, educational choices aim to avoid dropping to a lower level of social class than the parents, i.e. relative risk aversion hypothesis (Breen and Goldthorpe 1997).

The idea of rational action is also at the core of *human capital theory* (Becker 1962), which presumes that educational decisions are determined by the expected returns from the investment, also taking into account opportunity costs. Parents invest in their children's human capital, but although the human capital model does not explain how investment is achieved or how learning takes place, the notion presumes that parents somehow expend time and resources, which produce the human capital of their children (Bills 2003; Becker 2011). Accordingly, labour market success is explained as a return on investments in education and skills (Becker 1962).

At the individual level, there are two factions in the *school to work transition process* who make the decisions: school leavers (also their families) and potential employers (Müller and Gangl 2003). This process is affected by social constraints and pressures (Bills 2003). When making a decision about hiring a job applicant, employers take into account information concerning the applicant's human capital. However, employers' discriminatory preferences may also have a role in the decision making process. The job market signalling theory presumes that hiring is a decision made in uncertainty due to lack of information about the capabilities of the applicant. Although employers consider signals such as education and skills, also unalterable personal attributes such as ethnicity and gender might influence the decision making process (Spence 1973).

The logic of analysis in this dissertation follows the idea of primary and secondary effects, the rational choice model and human capital theory. I focus on school leavers' side of the labour market entry. The next sections give an overview of the theoretical ideas concerning the importance of ethnicity, individual language skills, expectations and social background for educational and labour market success.

2.2.2. Role of language for educational attainment

The important question is whether children of the ethnic minority and their parents have sufficient language skills to promote educational success. There is some evidence that *students' language difficulties* affect the performance of second-generation students (Lutz 2007; Schnepf 2007). In addition to the direct effect of language skills on the learning process, school performance is indirectly connected with language because many tasks are embedded in a linguistic context or related to a cultural context (Esser 2006). The important question is also whether or not

bilingual study programs would ease learning for children of an ethnic minority. In general, research reveals positive effects of competent bilingualism on various aspects of cognitive functioning but bilingual children are likely to possess a smaller vocabulary and spend more time on learning (see the review in Kristen et al. 2011). However, in the review of a previous study, Esser (2006) concludes that there is not a consistent answer as to whether bilingual education programs have positive or negative effect on school performance.

Heath and Brinbaum (2007) argue that low host-country *language fluency of parents* may make it difficult for children to succeed in their schoolwork. In addition to the ability to help children in learning, the parents' good language skills refer to more interaction with the ethnic majority and a commitment to integrate in the host country. Becker (2011) shows that parental language proficiency is relevant for young children's acquisition of skills that are specific for the host country but has minor importance for attaining general skills. However, there are too few studies to conclude the extent to which language difficulties of students and also their parents affect educational outcomes (see the review in Heath et al. 2008).

2.2.3. Social background, expectations and socio-economic composition of schools

The crucial role of *social background* for the successful integration of second generation immigrants is a constant finding in immigration research. Many studies show that the lower educational performance of ethnic minority students is associated to low social background, although this finding does not completely explain the ethnic gap in performance of all ethnic groups (Marks 2005; Rothon 2007; Van de Werfhorst and van Tubergen 2007; Levels and Dronkers 2008; Jonsson and Rudolphi 2011). Heath et al. (2008) suggest that in Western European countries, the influence of social background on occupational status of second generation immigrants is mostly mediated by the educational attainment of individual. However, social background might be important for labour market entry because parents with higher socio-economic resources have more opportunities to mobilise their resources for their children's job search (Kalter et al. 2007).

Despite having a lower social background, *educational aspirations* are generally high for ethnic minority students (Jackson et al. 2012) and they tend to make more ambitious educational choices partly due to higher motivation (Kristen et al. 2008; Cebolla Boada 2011). This tendency is also called "immigrant optimism" (see reviews in Kao and Tienda 1998; Kao and Thompson 2003). Although children of immigrants might be disadvantaged because of language skills and social background, the parents' optimism about their children's prospects are decisive for educational choices. On the other hand, knowledge about the educational system and crucial transitions within the system may be more scarce in immigrant families because the parents attended school in their home country (Esser 2004; Kristen and Granato 2007).

Expectations of discrimination within the labour market and society in general have an impact on an ethnic minority's beliefs about the value of schooling. The way that minorities are treated in society and how they perceive their treatment influences their attitudes toward schooling. When members of an ethnic minority do not trust the educational system, they might develop an oppositional culture to mainstream schooling (Ogbu and Simons 1998). Expectations of discrimination in the labour market are also important for decisions to continue in further education (Heath et al. 2008). On the one hand, ethnic minority youth might be particularly likely to stay longer in education if school is seen as an alternative for being unemployed due to expected discrimination in the labour market. On the other hand, ethnic minority youth may also invest less in education if they expect lower returns from credentials (Jonsson and Rudolphi 2011). So, discrepancies between ideal educational aspirations and realistic expectations might be broad, especially among more disadvantaged groups (Portes et al. 2005).

Social background, aspirations and expectations at the individual level relate to *school environment* that is a social space where children spend a lot of their time. A school environment includes not only teaching and resources in school, but also study climate, norms and general educational aspirations. A school environment is affected by neighbourhood as a concentrated disadvantage remains a direct predictor of educational outcomes (e.g. review by Sampson et al. 2002). The mechanism is as follows: students create the school social environment from the advantages and disadvantages they bring from home to school. In other words, school peers influence a student's school experience. Therefore, school composition in terms of the average socio-economic status of parents⁴ influences educational performance of students despite their individual characteristics (Bankston and Caldas 1996; Portes and MacLeod 1996; Portes and Hao 2004).

2.2.4. Labour market context: language, segregation and discrimination

In the context of the labour market, numerous studies for first generation immigrants in Western countries have shown that proficiency in the host country language is crucial but few studies for second generation immigrants include language measures (see the review in Heath et al. 2008). Nevertheless, Kalter (2006) shows that low language proficiency as well as ethnic composition of friendship networks are important explanations for the labour market disadvantage of second generation immigrants in Germany. In general, language proficiency is human capital that is more useful in some labour markets than in others, i.e. *country-specific human capital* (Chiswick 1978; Chiswick and Miller 1995; Kalter and Kogan 2006). Language skills are necessary in many jobs to fulfil work tasks

⁴ The argument for using socio-economic background is that the social composition of a school has a more profound impact on educational performances than ethnic composition. However, ethnic composition and educational performances are often correlated because ethnic minorities tend to be geographically concentrated in areas of relatively high social deprivation in Western European countries (Heath et al. 2008).

but also provide more information about job opportunities (Dustmann 1994). On the other hand, bilingualism (proficiency in host country's and ethnic minority language) is generally not worthwhile for ethnic minorities unless their own languages have a particular regional or global value (Esser 2004).

The important question is also how *linguistic environment*, understood as language requirements according to law and actual language skills needed for communication in a country or region, affects the significance of language proficiency in the labour market. Linguistic environment is related to *ethnic-linguistic concentration* in the area. A high ethnic concentration might have a significant negative effect on the proficiency and usage of the host country language (Van Tubergen and Kalmijn 2009). Thus, the usability of the host country's and ethnic minority languages varies in different regions and labour market sectors (Esser 2004). Ethnic minority language skills might be necessary for some jobs, particularly in areas where the concentration of ethnic minorities is high. Pendakur and Pendakur (2002) find that the economic return to proficiency in ethnic minority language rises with the concentration of the ethnic minority population, which is consistent with the human capital view of language.

Spatial segregation and ethnic concentration at workplaces often indicate an absence of social interactions between ethnic groups or *segregation of social networks*. The classic assimilation perspective in particular states that ethnic concentration may limit opportunities of upward mobility for second generation immigrants due to social distance from mainstream society (e.g. Alba and Nee 1997). Networks of interpersonal relationship affect labour market behaviour and the opportunities of individuals (Granovetter 1985). Ethnic minorities might have limited information about job openings due to their social networks, particularly if recruitment follows informal lines (Lin 1999). However, social networks of second generation immigrants usually include more members of the ethnic majority because they have attained education in the host country (Heath and Cheung 2007).

Discrimination, particularly ethnic discrimination, might be one reason for the less successful labour market entry of ethnic minorities. The effects of language may operate through discrimination mechanisms because speaking with an accent means that an individual is recognized as a member of an ethnic group (Stolzenberg and Tienda 1997). At entry into the labour market, the risk for statistical discrimination is particularly high because evaluating an applicant's productivity is complicated by the lack of work experience. Employers will discriminate against ethnic minority applicants if they believe that members of the minority group are less productive in general and if the cost of gaining information about the applicants is excessive (Phelps 1972; Arrow 1998). However, a large ethnic community minimizes the risk of discrimination (Pendakur and Pendakur 2002). Still, measuring discrimination is difficult as there are differences in unobserved characteristics; in particular unobserved cognitive skills or other non-cognitive personality traits might be in demand by employers (Bowles et al. 2005).

3. RUSSIAN-SPEAKERS IN POST-SOVIET SOCIETIES

3.1. POST-SOVIET CONTEXTS: ESTONIA, LATVIA AND UKRAINE

Estonia and Latvia became hosts to sizeable Russian-speaking communities after World War II. In Ukraine, by contrast, Russians were the largest ethnic group in the majority of Southern and Eastern Ukrainian cities by the early 20th century and ethnic Ukrainians in these regions adopted the Russian language. During the Soviet period, Estonia, Latvia and Ukraine shared quite similar organisations of educational systems and labour markets. After the societal changes, all three countries gave the titular language the status of sole official language and the supporting it became important political aim⁵. In the last twenty years, the political and economic transformations in Estonia and Latvia have taken place according to rather similar patterns and integration policy has strongly focused on language learning (Vihalemm and Kalmus 2009; Schmid et al. 2004). However, the societal developments in Ukraine have diverged from Estonia and Latvia as it has retained strong connections with Russia and the status of Russian language has remained high in society.

Due to the substantial inflow of Russian-speakers during the Soviet period (1944-1991) in Estonia, the proportion of Estonians in the population decreased from 88% in 1934⁶ to 62% in 1989. The reasons for the large-scale migration to Estonia were the industrial development that was taking place and also the desire by Moscow to control the implementation of Soviet policies in state administration and enterprises (Vetik and Helemäe 2011). The broader aim was the integration of incorporated territories into the Soviet Union (Hallik 2002). Russian-speakers mostly settled in the capital Tallinn and in the urban areas in Ida-Viru county (Eastern Estonia). Many of them arrived in Estonia immediately after attaining vocational or higher education, thus, their level of education was not lower compared than the native population (Saar and Titma 1992). Migrating Russians considered themselves to be members of the majority nation of the Soviet Union who moved merely from one part of the union to another (Pettai and Hallik 2002). The community of Russian-speakers remained separated from Estonians and had marginal contact with the Estonian language: indeed some residential areas, educational institutions and industries functioned exclusively in the Russian language (Rannut 2008). After Estonia regained its independence in 1991, many Russian-speakers returned to their

⁵ In 2012, a new language law came into force in Ukraine that expands the use of Russian and other ethnic minority languages in the public sphere. Study III refers to situation before the change of language law.

⁶ In the 1930s, Russians lived mainly in the border regions that Estonia lost after Soviet authorities redrew the border. Estonians comprised an estimated 97% of the total population in 1945.

historic homelands⁷. The Estonian Census in 2011 showed that Estonians comprised 69% and Russians 25% of the population. Other sizeable ethnic groups were Ukrainians and Byelorussians for many of whom Russian is the mother tongue (Statistics Estonia 2013).

The migration history of Russian-speakers into Latvia is rather similar to Estonia. In Latvia, the number of ethnic Latvians dropped from 77% in 1935 to 52% in 1989, but has risen according to the latest Latvian Census of 2011 to 62% (Central Statistical Bureau of Latvia 2013). A policy of segregation was also practised in Latvia during the Soviet period (Priedīte 2005) and the Russian language became dominant in the political and economic spheres of society (Schmid et al. 2004). However, as Aasland and Fløtten (2001) claim there was more social interaction between the ethnic groups both at work and sociably than in Estonia. Higher numbers of Russian-speakers in Latvia could speak Latvian, and there were more interethnic marriages compared to Estonia. According the 1989 USSR Census, 15% of Russians in Estonia and 22% of Russians in Latvia were fluent in the respective titular languages (Pavlenko 2008). These percentages are low because at that time knowledge of the titular language was not necessary in either society. The status of Russian-speakers changed significantly after the collapse of the Soviet Union and the marketization of the Estonian and Latvian economies (Aasland and Fløtten 2001). New laws about language⁸ and citizenship affected significantly their position in society. However, knowledge of the official languages is rising, especially among the younger generations. As a result of citizenship laws⁹, many Russian-speakers became legally stateless people. According to censuses in 2011, stateless people comprised 6.5% of the Estonian population and about 14% of the Latvian population (Statistics Estonia 2013; Central Statistical Bureau of Latvia 2013).

The migration history of the Russian minority population and language use in Estonia and Latvia differs from Ukraine. In Ukraine, the proportion of Russians increased from 9% in 1922 to 22% in 1989, while 17% of population identified themselves as Russians in 2001. However, about 30% of all Ukrainians spoke Russian as a mother tongue in 2001 (State Statistics Service of Ukraine 2013). Russian is linguistically close to the official Ukrainian language. During the Soviet period (1922-1991), use of the Russian language was actively imposed and many privileges were associated with the use of it. For instance, the language of

⁷ The exact number of returning Russian-speakers is not known but Hallik (2010) estimates that around 110,000 non-Estonians out-migrated in the 1990s.

⁸ The Language Act passed in 1995 specifies Estonian as the official language and all others as foreign languages. This law sets the mandatory level of language proficiency for public servants and private sector jobs related to services and sales (Language Act 2012). In Estonia, the Census of 2000 showed that almost 40% of Russians are able to speak Estonian while 60% of Estonians know Russian as a foreign language (Statistics Estonia 2013).

⁹ In Estonia, citizenship was granted to individuals who were citizens before 1940 and their descendants. The other option for achieving citizenship is through naturalisation except children born in Estonia after 1991 achieve it without naturalisation.

instruction was Russian in Ukraine's higher education, which is different from Estonia and Latvia where instruction in the titular language was available at all educational levels. In Ukraine, the status of the Russian language has remained stable despite political changes and is still used by many officials (Bilaniuk 2003; Bilaniuk and Melnyk 2008). In contrast to Estonia and Latvia, all Soviet citizens living in Ukraine at the time it became independent received Ukrainian citizenship regardless of their language or national origins (Polese 2011).

The next two sections give an overview of ethnic groups in Estonian educational system and labour market (see the Latvian and Ukrainian contexts in Study I and Study III).

3.2. LINGUISTIC DIVISIONS IN ESTONIAN EDUCATIONAL SYSTEM

Basic and secondary schools in Estonia are mainly state funded schools. Basic education begins at the age of seven¹⁰, and lasts for nine years. After the ninth year students can choose to continue in the general secondary track or acquire vocational education. The chances to continue in higher education are lower for students who finish vocational education and this type of education has had lower prestige (Saar and Lindemann 2008). In 2011, about 66% of students studying at upper secondary level were enrolled in general secondary schools (Statistics Estonia 2013).

During the Soviet period in Estonia, some basic and upper secondary schools had Russian as the language of instruction and others had Estonian. Since 1991, the number of students enrolled in Estonian-language schools has increased¹¹ and the importance of Estonian as the language of instruction in Russian schools has risen substantially. Special programs for language immersion have become increasingly more widespread in Russian basic schools. In Russian upper secondary schools, the controversial transition to bilingual teaching is still ongoing: Russian-speaking students who started the 10th grade in 2011 or later have to study 60% of school subjects in Estonian (HTM 2012). By contrast, in Latvia, the transition to bilingual teaching in Russian upper secondary schools started earlier and was implemented despite strong protest at educational policies in 2004 (see more in Study I).

During the Soviet period, the languages of instruction at the tertiary level were both Estonian and Russian but shortly after 1991, the state-funded universities moved to teaching mainly in Estonian. In the last twenty years, enrolment levels in tertiary education have increased significantly. Several private universities (requiring

¹⁰ The specific character of Estonia is a very high proportion of children enrolled in pre-school (about 90%). There are Russian-language and Estonian-language pre-schools. About 80% of children whose mother tongue is other than Estonian attend Russian-language pre-schools (HTM 2012).

¹¹ About 67% of students studied in Estonian-language basic school in 1995 and 80% in 2011. The same figures for upper secondary schools were 71% in 1995 and 85% in 2011 (Statistics Estonia 2013). At vocational schools, the proportion of students studying in Russian has decreased, from 28% in 2007 to 24% in 2011 (HTM 2012).

students to pay tuition fees) have been established and some of them teach in Russian. However, in Russian-language higher education institutions, the choice of the areas of studies is quite limited as social sciences dominate the curriculum (Saar 2008) and the focus is on applied not academic education (HTM 2012). Still some public universities offer special Estonian language courses and there are limited bilingual programs for Russian-speaking students. Students at public (state-funded) tertiary level institutions form two distinct tuition fee groups, which in 2010 were of approximately equal size: state-funded who do not pay and fee-payers. The proportion of graduates of Russian secondary schools continuing to the tertiary level as a state-funded student is lower than for graduates of Estonian secondary schools (Tõnisson 2011).

3.3. RUSSIAN-SPEAKERS IN THE ESTONIAN LABOUR MARKET

During the period of the Soviet command economy, labour policies caused differences in the patterns of employment between ethnic groups. Large, all-union level oriented industrial enterprises that reported to Moscow employed Russian-speakers, while local level oriented enterprises employed Estonians. As a result, Russian-speakers were overrepresented in the industrial sector and technical professions. Also the networks of ethnic groups were divided according to language (Aasland and Fløtten 2001; Pavelson and Luuk 2002; Pettai and Hallik 2002; Võormann and Helemäe 2003). Since the societal changes in 1991, ethnic minorities are likely to earn less than similarly educated Estonians, have higher unemployment rates and higher risks for having work that does not match with their level of education (Helemäe 2008; Leping and Toomet 2008; Lindemann and Saar 2009; Lindemann 2011a). Ethnic segmentation is still evident in the Estonian labour market. Although employment of ethnic minorities in the industrial sector has decreased from 50% in 1991 to 40% in 2011, this figure is still higher compared to Estonians, about 30% in both 1991 and 2011 (Statistics Estonia 2013).

Estonian regions have varying ethnic concentrations and also different labour market conditions. Eastern Estonia, where Russian-speakers form approximately 80% of the population, suffers from poor labour market conditions and the highest unemployment rates in Estonia. The economy of this area prior to 1991 depended on manufacturing oriented towards all-union needs and thus substantial reorganization was necessary after 1991 (Eamets 1999). Harjumaa (Harju county), in which Tallinn, Estonia's capital, public administration and service industry centre is located, has a large concentration of Russian-speakers (40% of the population). The employment rate in this area is above the Estonian average and wages are the highest in Estonia. By contrast, other Estonian regions have much smaller concentrations of Russian-speakers and often have better labour market conditions than in Eastern Estonia (Lindemann 2011b; Statistics Estonia 2013).

4. DATA AND METHODS

This dissertation uses mostly individual level data from four large-scale surveys. The analysis focuses on youths and young adults aged 15 to 35 years. The comparison of young Russian-speakers with the youth of the ethnic majority is the centre of the research in all studies. I use quantitative research techniques to analyse how individual attainments are embedded in broader institutional contexts. Table 1a and Table 1b present an overview of data, methods and variables that I used for analysis.

4.1. DATA AND VARIABLES

Study I compared performances in mathematics in Estonia and Latvia. Since schools are also linguistically divided in Latvia, my aim was to discuss how specific societal contexts shape the performances of students in these educational systems. Study I was based on data from OECD Programme for International Student Assessment 2006 (PISA) which contains information about knowledge and skills of 15-year old students, most of whom are still at basic school (lower secondary). In Estonia and Latvia, the choice between continuing on from basic school to general secondary education or vocational education is made at the age of 15 or 16 years. Thus, PISA provides a good reference point for the skills of students before their first important educational transition. PISA samples students randomly in two stages: schools are first sampled and then students are sampled in the participating schools (OECD 2009). I used both schools and students databases for the analysis. The dependent variable was performance in mathematics. The central independent variables were the language spoken at home, social background (highest parental education, occupational group and the number of books at home), motivation and aspiration of students as well as language of instruction at school, selection practices by the school and the socio-economic composition of school¹² (average occupational status of students' parents at the school). The sample sizes for Estonia were 4709 students and 169 schools and for Latvia 4385 students and 172 schools.

Study II and *Study III* used data from the Estonian TIES survey (2007-2008), which is related to the international research project "The Integration of European Second Generation" (TIES¹³). The Estonian TIES survey took place mainly in two cities, Tallinn and Kohtla-Järve (an industrial Eastern Estonian town) but some interviews were also conducted in Jõhvi, located close to Kohtla-Järve. Although the sample is restricted only to two areas, the advantages are detailed retrospective data about

¹² *Study I* did not take into account the linguistic composition of the schools because almost all the sampled 15-years old students in Russian schools were speaking Russian at home and most Estonian schools had only a few Russian-speaking students in this age group. I used the separate category of "mixed schools" in the analysis for the four schools that had both Estonian and Russian classes.

¹³ More information available at: <http://www.tiesproject.eu/index.php?lang=en>

educational histories, labour market entry, social background when respondent was 15 years old and Estonian-specific resources of respondents and their parents. In total, sample consisted of 500 Estonians and 500 second generation Russians aged from 18 to 35 years.

Study II compared educational transitions of young Estonians and Russians. At first, we analysed the probability of selecting general secondary education rather than vocational secondary education. The sample size for this analysis was 844 respondents. Secondly, we studied whether respondents with secondary education continued in higher education rather than took up vocational training or decided not to pursue further education. The sample size was 687 individuals. The central independent variables were: 1) ethnicity, 2) Estonian language proficiency and citizenship of respondent, 3) parental resources such as educational level, occupational group, the number of books at home, Estonian language proficiency and citizenship.

Study III compared the role of language skills for labour market entry in Estonia and Ukraine. The comparison of Estonia with another former Soviet Republic gives an insight into how the societal context, especially the linguistic environment, affects the importance of language for the labour market entry. For Estonia, we used the Estonian TIES survey and created a subsample of respondents who left full-time education during the years 1997-2007. The final sample size was 450 individuals. For Ukraine, we used data from the “Youth Transition Survey in Ukraine” (2007). The sample was representative for the Ukrainian population aged from 15 to 34 years who left continuous education between 2001 and 2006. The sample size was 1870 respondents. We studied entry to first stable job of at least 20 hours per week lasting for no less than 6 months. The focus was on the time between leaving full-time education and the first employment but we did not describe it as unemployment because individuals might have been inactive or holding casual jobs during this period. The aim was to examine the speed of finding a stable job and to compare it to entry to the first stable high-status job. Thus, we analysed two events: 1) the speed of finding any first stable job and 2) the speed of finding first stable higher-status job that likely requires advanced levels of language proficiency. We defined higher-status jobs as employment at higher occupational positions (codes 1-4 on ISCO88 scale) in economic activities related to the service sector (codes J, K, L, M, N and O in NACE classification). The central independent variables were ethnicity and language skills (including Russian language), educational level of the individual and parental highest occupational group.

Study IV examined the role of ethnicity and language skills for labour market entry in three Estonian regions. I analysed (1) the duration of unemployment before finding the first job and (2) the occupational status in the first stable job. I used data from Estonian Labour Force Surveys 2002-2011 (ELFS). The ELFS samples are representative for the entire Estonian working age population. I made two subsamples of labour market entrants aged from 16 to 29 years. The first subsample for unemployment analysis included 1680 individuals. I analysed the time between

the start of unemployment and the date of finding the first job. In contrast to Study III, the analysis here showed directly the duration of unemployment. Thus, I also had to define short-term and casual employment as entry to the first job. Only young people who have left the educational system were included in the analysis of unemployment. The second subsample for the quality of the first job included all respondents (also students) who had found their first stable job no more than two years before the survey, in total 3681 individuals. The first stable job was an employment that lasted for at least six months. I analysed occupational status measured with the ISEI scale (international socio-economic index of occupational status). The central independent variables were ethnicity and language skills (including Russian language), the area of residence, the level of education and the economic sector of the first job. The area of residence was divided into three regions: 1) Tallinn area, including Tallinn and surrounding Harju county; 2) the Eastern region or Ida-Viru county; 3) all other Estonian regions.

The *defining of Russian-speaking minority* was based on self-identification in all studies:

- 1) In PISA data, the ethnicity of students was not asked but language spoken at home was recorded. I defined students who speak Russian at home as the Russian-speaking minority (Study I).
- 2) The TIES data consisted only of the ethnic Russian minority (Study II and Study III). The survey defined second generation Russians as youth who considered themselves to be Russian, were born in Estonia and had at least one parent who was born in Russia or another former Soviet Republic other than Estonia¹⁴ (Vetik and Helemäe 2011).
- 3) In ELFS, respondents were asked what their ethnicity was and which language they spoke at home. I included all ethnic minorities who speak Russian at home (Study IV).

This dissertation uses the terms *Russian-speaking minority* and *ethnic minorities* interchangeably. I recognise that the Russian-speaking community is ethnically heterogeneous and the Russian language may not be the main feature of identity for people belonging to this group. I use the term *Russians* only for describing the results of the Studies II and III. I focus on second and later generation immigrants. Analysis based on TIES and ELFS data included only ethnic minorities who are born in Estonia. In PISA data, almost all Russian-speaking students in the sample were born in the host country (97%).

¹⁴ Estonian TIES data shows that about 5% of second-generation Russians were not brought up in Russian language. However, these respondents were proficient in Russian.

Language skills were evaluated by respondents in Studies II, III and IV.

- 1) Study II included the measure of Estonian language proficiency that is based on respondents evaluation of their spoken and written Estonian skills.
- 2) In Study III, we defined respondents who evaluated their Estonian or Russian communication skills to be excellent, very good or good as proficient in the language. In Ukraine, the measurement of language skills was based on language usage.
- 3) In Study IV, I defined proficiency in Estonian or Russian as the ability to write and speak in the respective language or the language is one of respondent's home languages.

However, self-defined language proficiency is not unproblematic because it depends on a reference group and the experiences of respondent. For instance, very good Estonian proficiency might mean different actual skills in mainly Russian-speaking Eastern Estonia compared to other regions. Unfortunately, no Estonian data about transitions of youth contains an independent language test.

4.2. METHODS

The first aim of analysis was to investigate educational performances (*Study I*). The cognitive data in PISA study are scaled on the basis of Item Response Theory (OECD 2009). I used all five plausible values for performance in mathematics to estimate means, standard deviations and multilevel linear regression models. I conducted analysis with multilevel models to differentiate the effects at the school and at the individual level (students were treated as level 1 and schools as level 2). I analysed Estonia and Latvia in separate models. In addition, I estimated models only for Estonian and Latvian schools to explore the performance of Russian-speaking students in ethnic-majority language schools. In all models, only the regression intercept is assumed to vary across schools.

The second aim of analysis was to examine educational transitions (*Study II*). The dependent variables were transitions to secondary and higher education. The method was logistic regression analysis. We focused on two aspects: (1) gross disadvantage (model with only ethnicity as a predictor of transitions) and (2) net disadvantage after including social background and other individual characteristics into the models. We also estimated separate models for ethnic groups to explain the influence of language skills and citizenship as well as the different impact of social background (significance was tested with interactions). In addition, we used the index of dissimilarity to research tendencies of convergence or divergence of educational attainment of ethnic groups over a generation.

The third aim was to analyse the transition process from school to the labour market (Study III and Study IV). *Study III* applied an event-history analysis to study the process of transition from school to the first stable job: (1) in any employment field

and (2) in higher-status activities in the service sector. We analysed Estonian and Ukrainian data with separate models. We used piecewise constant exponential durations models to estimate the impact of independent variables on search duration before finding the first stable job. This method allows flexibility in modelling the baseline hazard as the transition rates might vary between defined periods. The start time of the episode was the date of leaving education. An event occurred when the respondent found the first stable job. In analysis of entry to higher-status jobs, the individuals who found the first stable job, albeit not in higher status activities, were treated as right-censored.

Study IV used event-history and linear regression analysis. First, I focused on the effect of ethnicity and language proficiencies on the duration of unemployment before finding the first job. Similar to Study III, I applied piecewise constant exponential models. Since the ELFS contains data about labour market movements during one year, the maximum time used in the analysis was 12 months. The starting time of an episode was the start date of unemployment. An event occurred when the respondent found any kind of first job. Secondly, I applied linear regression analysis to find out the effect of an ethnic-linguistic group on the occupational status of the first stable job (that lasted at least six months). For both dependent variables, I tested models with interactions to see whether the effect of ethnic-linguistic groups differ significantly across regions and thereafter, calculated separate models for regions.

Table 1a. Overview of data, methods, variables and sample size (Study 1 and Study 2).

	Data	Definition of minority group	Methods	Dependent variable	Main explanatory variables	Sample size (N)
Study 1	PISA study 2006 (OECD)	Students who speak Russian at home	Multilevel analysis (hierarchical linear regression models)	Mathematics performance	<i>Student:</i> language spoken at home, social background, motivation. <i>School:</i> language, selectivity, socio-economic composition, location	<i>Estonia</i> students: N=4709, schools: N=169; <i>Latvia</i> students: N=4385, schools: N=172
Study 2	Estonian TIES survey 2007-2008	Second generation Russians (self-identified, at least one parent born outside Estonia)	Logistic regression; index of dissimilarity	Educational choice: 1) general secondary vs. vocational education; 2) higher education vs. other	Ethnicity, Estonian skills, citizenship and social background (inc. parental language skills and citizenship)	Secondary education: N=844; Higher education: N=687

Table 1b. Overview of data, methods, variables and sample size (Study 3 and Study 4).

	Data	Definition of minority group	Methods	Dependent variable	Main explanatory variables	Sample size (N)
Study 3	Estonian TIES survey 2007-2008; Youth Transition Survey in Ukraine 2007	Estonia: second generation Russians Ukraine: ethnic identity (Russian / Ukrainian)	Event history analysis (piecewise constant exponential models)	Speed of finding stable job in: 1) any employment field; 2) higher-status job in the service sector	Ethnicity, Estonian / Russian skills, education, parental occupation	Estonia: N=450; Ukraine: N=1870
Study 4	Estonian Labour Force Surveys 2002-2011	Ethnic minorities who speak Russian at home	Event history analysis (piecewise constant exponential models); linear regression	1) unemployment duration before any first job; 2) occupational status in first stable job	Language spoken at home, Estonian / Russian skills, education, economic sector, region	Unemployed: N= 1680; First job: N=3681

5. RESULTS

I introduce the empirical findings by focusing first on educational attainment and after that on labour market entry. First, I analyse how educational performance and transitions of Russian-speakers and ethnic majority youth relate to language, social background and school contexts. I compare Estonia and Latvia. Thereafter, I study how proficiency in the host country's language and the ethnic minority language as well as ethnicity influences entry to the first job in different labour market contexts. This part includes comparison with Ukraine.

5.1. EDUCATIONAL ATTAINMENT: PERFORMANCE AND TRANSITIONS

5.1.1. Ethnic differences

Contrary to findings in Western European countries¹⁵, the results for Estonia indicate that the gap in education attainment between second generation immigrants and the ethnic majority has increased compared to their parents' generation (Study II). The findings indicate that young Russians more often attain vocational education compared to their Estonian peers who frequently complete general secondary education and attain higher education. The gap in educational attainment might result from different performances in school but also from educational choices. In Western European countries, Heath et al. (2008) conclude that the ethnic disadvantage in education is particularly visible in *school performance*. However, several studies¹⁶ find that *educational choices* of ethnic minority youth might be even more ambitious compared to the ethnic majority in cases of similar social background and previous performance (Van de Werfhorst and van Tubergen 2007; Kristen et al. 2008; Kilpi-Jakonen 2011; Cebolla Boada 2011; Jonsson and Rudolphi 2011; Jackson et al. 2012).

The results of Study I show that, in Estonia, Russian-speaking students have a lower performance at the age of 15 years than Estonian students. In particular, students at Russian schools achieve lower results in mathematics (486 PISA points) than students at ethnic-majority language schools (523 PISA points). This is a large performance gap: according to the OECD about 40 PISA points equates to one year of studies at school (OECD 2010). These results are quite unexpected because Russian-speakers have a chance to study to large extent in their mother tongue in familiar linguistic and cultural contexts. Moreover, the Estonian Integration Survey 2011 showed that many Russian-speakers believe that studying in Russian basic school is necessary for gaining good knowledge in Russian about school subjects

¹⁵ Thompson and Crul (2007) conclude that educational attainment of immigrants across generations becomes more similar to that of the native populations. This study included the UK, the Netherlands, Switzerland, Portugal and Spain.

¹⁶ These studies include Finland, Sweden, the UK, Spain, Germany and the Netherlands.

(Masso et al. 2011). In contrast to the international PISA survey, the average results of standardised state exam in mathematics at the end of basic education were similar for students in Russian and Estonian schools from 2006 to 2011 (National Examinations and Qualifications Centre 2013). State exams are based on tasks set in the mathematics curriculum but PISA measures general skills and knowledge in mathematics.

In addition to Russian-speakers' lower performance, Study II shows that Russians are less likely than Estonians to continue their studies in general secondary school as opposed to other types of secondary school. Typically, general secondary education provides the best opportunities to continue in university while vocational education often leads to the labour market (Saar and Lindemann 2008). Although it was not possible to control for previous performance in Study II, Russian-speakers do not have to compete with Estonians for access to general secondary school if they choose to continue studies in Russian school¹⁷. Thus, the reasons for Russians' lower transition rates are probably other than previous performance.

Study II also indicates that Russians continue less probably in higher education than the ethnic majority youth. Therefore, higher selectiveness among Russians in access to general secondary schools does not reduce the effect of ethnicity for transition to higher education. Young Russians are less likely to go to higher education even if they have completed general secondary education. This dissertation does not analyse the performance of students at the end of upper secondary school, however, standardised state exams are conducted at this time. The results of these exams indicate that students at Russian schools had quite similar achievements in mathematics as students at Estonian schools in 2008-2011 (National Examinations and Qualifications Centre 2013). However, taking the mathematics exam was optional for students, so it is not possible to make firm conclusions about any similarity of performance. Transition to higher education is the first educational transition where Russian-speakers have to compete with Estonians. Thus, large ethnic differences in performance that appeared for 15-year old students might also impact this transition.

5.1.2. Role of language

One reason for the lower educational attainment of ethnic minorities might be insufficient language skills. Some ethnic minority parents do decide to send their children to ethnic-majority language schools. Study I shows that Russian-speakers get better results in mathematics at Estonian schools than at Russian schools¹⁸. This

¹⁷ However, the performance gap does matter if Russian-speaking students decide to compete with Estonians for access to those Estonian-language upper secondary schools that conduct tests for selecting the best students.

¹⁸ Additional analysis for Russian-speaking students only, showed that even after controlling for individual social background, motivation and occupational aspirations, the mathematics performance of Russian-speaking students is about 25 points lower in Russian schools compared to their performance in Estonian schools (these calculations are based on data from PISA 2006).

result cannot be interpreted only as a positive effect of studying in Estonian schools due to unmeasured pre-selection effects, such as parental motivation or students' abilities. On the other hand, Russian-speakers at Estonian schools achieve significantly lower test scores compared to their Estonian peers at the same school, even in cases of similar social background, motivation, aspirations and school characteristics. The most plausible reason, therefore for lower educational attainment is language difficulty. In accordance, PISA 2009 data indicate that the gap between Russian-speaking and ethnic majority students is especially large in reading skills at Estonian schools (Lindemann 2011c; Lindemann 2012).

Estonian language proficiency of young Russians is strongly related with educational transitions (Study II). Russians who have good or very good Estonian language skills are more likely to continue studies in general secondary school and in higher education. It is important to note that the effect of language proficiency in Study II is bi-directional, i.e. attending general secondary school or higher education increased self-evaluated Estonian language skills. However, holding Estonian citizenship at the time of educational transition did not influence the choice of secondary track but had strong positive effect on transition to higher education that supports conclusion about the importance of Estonian proficiency for continuing in higher education. Thus, the existence of private higher education institutions with Russian-language of instruction does not reduce the importance of Estonian-specific resources for continuing studies in higher education.

5.1.3. Importance of social background

In Western European countries¹⁹, second generation immigrant parents' low educational level and social position as well as lacking host country specific resources are often considered to be the reasons for the lower educational attainment of their children (Heath and Brinbaum 2007). In Estonia, the educational level of migrating Russian-speakers did not differ much from native Estonians during the Soviet period but many Russian-speakers have experienced downward mobility in the labour market since Estonia regained independence in 1991 (Pavelson and Luuk 2002; Helemäe 2008). However, Study I and Study II indicate that individual social background (parental highest occupational position, educational level and cultural resources) is not the explanation for the ethnic minority group's educational disadvantage in Estonia.

Study I showed that social background is an important predictor of educational performance for both Russian-speakers and Estonians but it does not explain the lower performance of the ethnic minority students²⁰. In addition, parents are likely

¹⁹ Heath and Brinbaum (2007) reviewed studies about several countries, including Belgium, France, Germany, the Netherlands, the UK and Norway.

²⁰ The additional analysis showed that interaction effects between language spoken at home and parental education and occupation are not significant. Therefore, the influence of social background on educational performance should not differ for Russian-speakers and Estonian-speakers.

to affect the ambitions of their children. However, the results of Study I indicate that students' motivation and occupational aspirations do not account for the disadvantage of Russian-speakers. It is important to note that motivation to study mathematics and occupational aspirations do not differ much for ethnic groups. Thus, contrary to some findings of "immigrant optimism" in Western countries (Kao and Thompson 2003), there is no tendency towards particularly high motivation of minorities in Estonia.

The results of Study II indicate that the influence of parental resources on educational transitions differs for young Russians and Estonians. Parental highest educational level affects transition probabilities of both ethnic groups. On the other hand, parental occupational position shapes the transition probabilities of Estonian youth but does not apply to second generation Russians. The lower importance of occupational position for Russians might be related to Russian-speaking minority difficulties in finding occupational positions matching their level of education.

Many Russians-speaking parents have attained their education during the Soviet time and have little or no knowledge of the Estonian language. Expectedly, language skills and citizenship of parents refers to their greater willingness to integrate into society and have stronger connections with the native population. However, the results of Study II showed that the general human capital of parents is a more significant predictor of educational choices than country-specific resources of parents. In cases of similar parental education and occupational position, Estonian language proficiency of parents does not influence the choice of secondary track. The reason could be that many Russians continue to study at secondary school in Russian. For the same reason, it is also not plausible that Russian-speaking parents would have less knowledge about the educational system for making educational choices. However, there is some positive effect of Estonian citizenship of parents on continuing in general secondary education but this effect is mediated by an individual's citizenship and language skills. Similarly, parental language proficiency and citizenship do not affect the probability to continue in higher education.

5.1.4. Contextual effects in education

School environment shapes the primary effects of education. Some schools in Estonia select their students on the basis of academic ability. Study I shows that the gap between Estonian and Russian schools is not conditioned by how schools select students regarding the importance of academic ability although students in more selective schools achieve better results. However, parents and students also select schools. Results show that school composition in terms of parental average highest occupational status has a strong influence on performance in mathematics and it explains partly the low performance of students in Russian schools²¹. Therefore, it

²¹ In addition to social composition of schools and their selectivity, the learning environment in schools might differ due to teaching practices. Study I did not focus on study methods, however,

seems that the downward mobility of the Russian-speaking community in Estonia has also had some influence on the social environment of Russian schools. In addition, Study I indicated that Russian-speaking parents who prefer Estonian schools for their children have higher occupational status than those preferring ethnic-minority schools which also affects the socio-economic composition of Russian schools. An additional question is whether the lower socio-economic composition of Russian schools also influences educational choices of students. Although parental occupational position had no effect on educational transitions of ethnic minorities (Study II), the school environment and school peers might influence the choices of students.

In contrast to educational performance, the secondary effects of education are more likely to result from intentional choices that take into account the probability of success (Breen and Goldthorpe 1997; Jackson et al. 2012). It is likely that changes in the educational system and any related perception of opportunities have had an impact on the educational attainment of ethnic minorities. After 1991, the Estonian language became quickly the main language of instruction in higher education but at the same time the quality of teaching the Estonian language in Russian secondary school was rather poor. Thus, any youth not proficient enough in Estonian have limited opportunities for acquiring higher education. In addition, the perceived opportunities in the educational system and in the context of the labour market might impact on educational choices. In Estonian society, general education aspirations are high for both ethnic groups but realistic expectations for educational success are smaller for ethnic minorities (Saar 2008), Russian-speakers particularly perceive an inequality of access to higher education (Masso et al. 2011). The process of transition to bilingual teaching in Russian upper secondary schools increased uncertainties and might have affected Russian-speakers' trust in schools. Uncertainties in the labour market might also impact on the motivation to invest in education. There is a strong belief among Estonia's ethnic minorities that ethnicity shapes opportunities in the labour market, an opinion shared even by ethnic minorities with higher education and good language skills (Lindemann 2011a). Thus, perceived probabilities of success are lower for young Russian-speakers, which might make it rational not to choose the most ambitious educational pathways (Study II). On the other hand, the choice of continuing in education to avoid possible unemployment did not seem to be a relevant alternative to the Russian-speaking minority, at least until recently.

5.1.5. School performance and integration context at the country level

Study I analysed Estonia in comparison with Latvia where there is also a large Russian-speaking minority as well as basic and secondary schools are divided based on language of instruction. In contrast to Estonia, Study I showed that 15-year old

the international OECD's TALIS survey in Estonia showed that teachers at Russian schools believe more strongly in providing correct solutions to students and they put more emphases on the necessity of studying facts than teachers in Estonian schools (Loogma et al. 2009).

students at Russian and Latvian schools achieve rather similar scores in mathematics in Latvia. Only students in mixed schools (two-stream schools where some students study in the ethnic-majority language and others in Russian) have lower performances, but these schools are more often located in rural areas.

The important question is why the linguistically divided educational system in Latvia does not produce such divided outcomes as it does in Estonia. The integration context of the country might be a part of explanation. Compared to Estonia, socio-economic differences between the ethnic communities are smaller in Latvia. Also the intermarriage rate between ethnic groups is higher in Latvia and communities are less separated, socially as well as spatially (Aasland and Fløtten 2001; Hazans 2010; Rozenvalds 2010). On the other hand, after eliminating Russian-language instruction from Latvian public higher education in the 1990s, the ethnic gap emerged in tertiary enrolment and graduation rates between Latvians and ethnic minorities (Hazans et al. 2008).

5.2. LABOUR MARKET ENTRY

The following section analyses the process of moving from school to the first job. The focus is on the importance of language skills and ethnicity. Previous studies in Estonia indicate that generally young Russian-speakers are less successful in the labour market (Lindemann and Saar 2009; Lindemann 2011b). Compared to young Estonians, second generation Russians have lower prospects of being promoted in their job, participate in workplace training and they are less satisfied with their careers (Lindemann and Vöörmann 2010). Previous findings also indicate that ethnic minority youth have a higher risk of unemployment and lower chances for achieving high-status positions even if they have attained higher education, only at the level of a Master's degree²² are there not any ethnic differences in labour market chances (Unt and Lindemann 2013).

5.2.1. Profile of young labour market entrants

Youth enter the labour market with different language and educational resources. In Estonia, many second and later generation Russian-speakers have difficulties with proficiency in the host country language. The language skills and educational level are to some extent correlated. Study III and Study IV showed that Russian-speakers with poor Estonian skills had usually acquired only basic or some type of vocational education at the time of labour market entry. On the other hand, Russian-speakers who are proficient in Estonian had often attained higher education. However, residential segregation is also important because a higher concentration of Russian-speakers means lower skills in Estonian language. In addition, Study IV indicated

²² This research did not include the level of PhD degree.

that Estonians who had good Russian skills had generally also a higher level of education compared to their co-ethnics who were not proficient in Russian²³.

Study III showed that monolingual Russians have less advantageous social backgrounds compared to other youth in Tallinn and Kohtla-Järve. Almost a fifth of monolingual Russians are children of unskilled workers (highest parental occupation when individual was 15 years old). However, previous findings indicate that there is no direct effect of parental education on the labour market position of second generation Russians, but this influence is mediated by educational attainment of individual (Lindemann 2011b).

5.2.2. Importance of language skills in different contexts

As expected, the results of Study III and Study IV indicated that high proficiency in Estonian language increases labour market success of second and later generation immigrants. In general, ethnic minority youth with good language skills compete with Estonians for quite similar jobs and are less dependent on Russian-language enterprises than monolingual Russian-speakers (Study III). Estonian language skills are significant despite high educational levels of individuals²⁴. Ethnic minority youth who do not have good Estonian skills are slower in gaining access to the first job and have extremely low chances of finding a high-status first stable job (Study III, Study IV). The results for Tallinn and Kohtla-Järve show that they often settle in low-ranking jobs in enterprises where most other employees are Russian-speakers (Study III). Previous findings have also showed that young Russians in Russian-language enterprises are not more likely to work in managerial or professional positions than their co-ethnics in Estonian enterprises (Lindemann 2011b).

Studying at Estonian schools improves Estonian language skills of Russian-speakers. Study III and Study IV did not include the measure of studying in Estonian schools but previous findings suggest that young Russians who have studied in Estonian are more successful in getting high-status employment compared to other Russians, even in instances of similar educational level and self-estimated language proficiency (Lindemann 2011b). Young Russians who are proficient in Estonian also tend to view their professional careers as positively as Estonians (Lindemann and Vöörmann 2010). In contrast, it seems that citizenship has limited importance for economic success apart from the educational and the language skills aspects; although being a citizen is a precondition for working in some higher positions in the civil service (Lindemann 2011b).

²³ In Study III the level of education was higher for Estonians who do not speak Russian because many Estonians in the Kohtla-Järve area are bilingual but do not have as high an education as youths in Tallinn (the sample based on two cities in this study).

²⁴ Previous findings for all working-age people show that having no Estonian-language skills is particularly disadvantageous for ethnic minorities with higher education in competition against higher educated Estonians (Lindemann 2011a).

The linguistic environment varies greatly throughout the Estonian regions in accordance with ethnic residential segregation. Study IV shows how the local context affects the importance of language skills for labour market entry. The Russian language environment in Eastern Estonia seems to some extent to reduce the negative effect of poor Estonian skills. This is due not only to the importance of Russian-language skills because Estonians with poor Russian skills do not get jobs with lower status than others. However, proficiency in the host country language is still relevant in the Eastern region, as Russian-speakers with good Estonian skills are particularly successful.

Study III and Study IV reveal that, in general, having Russian-language skills does not provide any additional value to having Estonian language skills when it comes to finding higher-status first stable employment. The findings of Study IV showed that Russian proficiency does not affect the quality of the first stable job. The results of Study III emphasized that Estonians and Russians proficient in both languages are no more successful than Estonians who do not speak Russian in either finding first stable job or achieving a high-status first stable job that requires communicative skills. Although Russian skills are obviously necessary for several language specific jobs, there seems to be sufficient higher-status jobs in the labour market that youth can also secure without having a proficiency to communicate in Russian. A high level of competence in other languages, especially in English, might compensate for the lack of Russian language skills among young Estonians, particularly if their higher status job does not require direct communication with Russian-speakers.

Study IV also analysed exit from unemployment to any kind of job, including short-term or casual jobs. The results showed that the knowledge of Russian gives some advantage in moving more quickly out of unemployment to the any kind of first job in the Tallinn area²⁵. In addition to the ability to communicate with the local Russian-speaking population, which is necessary for jobs in the services and sales industries, there are numerous jobs in tourism and international enterprises in Tallinn that require the occasional use of Russian. This finding supports the assumption that an ethnic minority language has some value as human capital in areas with a high proportion of the ethnic minority population. Nevertheless, no positive effect of Russian language skills was found for attaining a stable and high-status job.

5.2.3. Importance of linguistic environment at the country level

The comparison of two former Soviet Union Republics – Estonia and Ukraine – showed how the linguistic environment at the country level affects the labour

²⁵ Unfortunately, the number of youth without Russian skills was too small in the sample for Eastern Estonia to test the same hypothesis.

market entry of ethnic groups²⁶. Study III implies that the practical usage of language as well as the status of the ethnic minority and majority languages in the country affects the chances that youth have after leaving education. The effects of language knowledge in Estonia resemble the situation in other Western immigrant-receiving societies, where speaking the official language is highly important for labour market success. The situation is different in Ukraine. Findings indicate that proficiency in Ukrainian is not necessary for finding a stable job and Russian language proficiency seems more highly rewarded at labour market entry. Russian-speakers have no difficulties in getting higher status jobs despite Ukrainian language skills being at least formally required for higher-status jobs in the public sector during analysed period of 2001-2006 (Study III).

The integration context and the prevalence of Russian language vary in the two countries. The Russian language, which is linguistically close to the official Ukrainian language, has more or less retained its high societal value in Ukraine. Several labour market segments in Ukraine are dominated by Russian-language users. The slower pace of change in institutions in Ukraine as well as stronger economic and political connections with Russia contribute to the persistently high status of the Russian language. In Estonia, the importance of the Russian language declined after Estonia regained independence, and the position of the linguistically distant Estonian language has strengthened as it determines access to public higher education and to higher occupational positions. In the light of close monitoring of Estonia's strict language requirements and of the growing number of Estonian-language speakers among ethnic minority youth, it is apparent that monolingual Russian-speakers have almost no possibility of finding a higher-status position in the Estonian labour market.

5.2.4. Role of ethnicity in local context

I compared the opportunities of ethnic minority and majority youth who have equal human capital, such as the same levels of education and language skills. Study IV concluded that the influence of ethnicity on the transition to the labour market differs significantly across Estonian regions. It appeared that there are no ethnic differences in opportunities if the ethnic minority population in the region is small (all Estonian regions except Eastern Estonia and Tallinn area) and consequently, ethnic segmentation is less likely in these areas.

In contrast, Study IV also indicated that being a member of the minority is a disadvantage in the Tallinn area, as young Russian-speakers with good Estonian skills experience longer unemployment and secure jobs of a lower quality than Estonians. Ethnic differences emerge regardless of the best general labour market

²⁶ The residential segregation of ethnic-linguistic groups is evident in Ukraine (Study III). Ukrainians who prefer to speak Ukrainian live mostly in the western part of country, while Ukrainians who are monolingual Russian-speakers and ethnic Russians often live in eastern part. However, bilingual Ukrainians are quite a heterogeneous group in terms of place of residence. We controlled for the regional effect in Study III.

figures in Estonia, indeed the results showed that Estonians are more successful in all economic sectors. Despite some benefit from Russian language skills, ethnic resources do not seem to be of much use to young Russian-speakers. Due to the sizeable ethnic minority community in Tallinn, young Russian speakers might grow up in a Russian-speaking environment and have few contacts with Estonians. The Estonian Integration Survey of 2011 showed that about a half of Estonians and a third of Russian-speakers have almost no contacts with people from other ethnic groups in Tallinn (Lauristin et al. 2011).

However, the effect of belonging to the Russian-speaking minority is positive for securing high-status jobs in Eastern Estonia, as ethnic minority youth who have good Estonian skills find high-quality jobs in the service and industrial sectors. Russian-speakers have been dominant in the industrial sector since the Soviet period and ethnic minority youth might be more connected to this sector through social networks. These results can be interpreted as supporting the idea that the usefulness of ethnic resources depends on a sizeable ethnic community (Esser 2004). However, many young people leave Eastern Estonia to go to the Tallinn area where there are more options for studies and the general labour market conditions are better. Despite high out-migration from Eastern Estonia, the ethnic composition in the area has not changed much in a comparison of data from the censuses of 2000 and 2011 (Statistics Estonia 2013).

CONCLUSION

This dissertation has explored how a linguistically divided educational system and the linguistic context in the labour market affect structural integration of young Russian-speakers in post-Soviet societies. At the centre of the research were the outcomes of structural integration in post-Soviet context in Estonia, which I contrasted with post-Soviet contexts in Latvia and Ukraine. In 1991, the collapse of the Soviet Union brought about a new minority status for the Russian-speaking communities in former Soviet Republics. In the last twenty years, the incorporation of Russian-speaking minority populations has been actively debated in these societies. Furthermore, in some of those countries economic difficulties relate to the lack of host country language skills and structural unemployment. Since 1991, a new generation of Russian-speakers has grown up who were born in the host country and mostly have attained their education during the post-Soviet time. This dissertation focused on second and later generation Russian-speakers. I researched how ethnicity and language skills at the individual level influence performance at school, educational transitions and labour market entry and how these influences depend on contextual effects. I also studied the influence of local contexts on outcomes of structural integration in different Estonian regions.

The idea of linear assimilation presumes that the structural integration of immigrants into a dominant population occurs swiftly over a few generations. In several Western European countries, educational attainment of second generation immigrants becomes more similar to that of the native population (Thompson and Crul 2007). The situation in Estonia is quite the opposite, as there is not a discernible trend in swift structural integration in terms of educational outcomes. The results of Study I and Study II reveal that Russian-speakers have a lower educational performance and less ambitious educational choices compared to Estonians. The gap in educational attainment has widened across immigrant generations.

The low social background of individuals is the main explanation for lower educational attainment of several ethnic minority groups in Western European countries (Heath and Brinbaum 2007). By contrast, in Estonia, social background at the individual level is not the reason for the lower educational performance or less favourable educational transitions of Russian-speakers. Thus, general stratification mechanisms do not explain the ethnic gap in educational attainment in Estonia. In addition, Estonian language proficiency of ethnic minority parents does not influence educational transitions of their children. This result was expected because the language of instruction is mostly Russian in ethnic minority schools. However, the importance of parental Estonian language skills might grow due to the transition to bilingual teaching at Russian upper secondary schools and the increasing number of language immersion programs in Russian basic schools. In addition, motivation to study and occupational aspirations of students do not explain the lower educational performance of Russian-speakers. In contrast to some findings

concerning the particular optimism of immigrants and their children in Western European countries, the motivation and aspirations of students of the ethnic minority and majority in Estonia seem rather similar.

Language has a key role in the process of integration. In Estonia, the rules and regulations in the labour market and society in general strongly support the usage of the Estonian language. At the same time, Russian-speakers have doubts about the quality of Estonian language teaching at Russian schools (Saar 2008). Indeed, the results of this dissertation show that a stronger inclusion into ethnic majority group (by attending Estonian schools) and Estonian language proficiency promotes the educational success of young Russian-speakers. This finding is in line with the classic assimilation perspective argumentation: more connections with the ethnic majority group promote structural integration. Estonian language skills are important for educational attainment despite the existence of Russian basic and secondary schools as well as private higher education institutions using Russian as the language of instruction²⁷. In particular, very good Estonian skills and Estonian citizenship relate to a higher likelihood of continuing in higher education. This result is expected because low Estonian proficiency is an impediment for access to public higher education. In addition, Russian-speaking youth who attend Estonian schools have better performances in mathematics than their co-ethnics in Russian schools even in cases of similar motivation and parental background. Russian schools should, however reduce the negative effect of language difficulties as students can partly study in their mother tongue. Besides the probable positive effect of Estonian schools, there might be unmeasured pre-selection effects that account for Russian-speakers' higher performances, such as highly supportive parents or the abilities of the students. Thus, attending Estonian schools seems to improve performances of ethnic minority students but they still lag behind Estonians studying in the same schools, probably due to language skills. Some of these Russian-speaking students who are in Estonian school at the age of 15 years might have started their education in Russian or attended Russian pre-school. Another question is how well teachers and students in Estonian schools are prepared for ethnic diversity.

The local social environment affects the outcomes of integration in education. However, according to the segmented assimilation theory, value-orientations as well as networks of social support and control in ethnic community may contribute to the success of second generation immigrants, even in unfavourable social conditions (Portes and Zhou 1993; Zhou 1997). Thus, inclusion in their own ethnic community might promote the educational successes of second generation immigrants. However, the results of this dissertation indicate that Russian schools do not function as a medium to capitalize material and moral resources within the ethnic community to promote the educational successes of young Russian-speakers,

²⁷ However, reasons for not continuing in Russian-language private universities might not only be a lack of financial resources but also limited choice of study areas and applied orientation of education in several of these institutions (Saar 2008; Tõnisson 2011).

indeed quite the opposite seems to be evident. Downward mobility of the Russian-speaking community in the labour market in the 1990s has lowered the socio-economic composition of Russian schools. In addition, the preferences of Russian-speakers contribute to this situation as students at Russian schools have parents with lower occupational status compared to Russian-speaking students at Estonian schools. The results show that school composition in terms of average occupational status of parents partly explains the lower educational performance of students in Russian schools. School composition might also reflect the broader social environment, such as conditions in the local labour market and social problems associated with it. Thus, advantages and disadvantages that students bring from home create the school environment that is less favourable for good performances at Russian schools than in Estonian schools.

However, a linguistically divided educational system does not necessarily have a negative effect on the educational attainments of the ethnic minority youth. The Latvian context suggests that linguistically divided schools could secure somewhat similar educational performances for students from both the ethnic minority and majority if social distance between ethnic communities is not large or at least not as large as in Estonia. In other words, the broader integration context in the country shapes the educational outcomes of ethnic groups. For example, the intermarriage rate (between the ethnic Russian-speaking community and the ethnic majority) is higher in Latvia than the comparable intermarriage rate in Estonia, which means that Latvia's ethnic-linguistic communities are more mixed. Also, the economic differences between the two communities are smaller in Latvia than in Estonia although the Russian-speaking population experience difficulties in the labour markets of both countries (Rozenvalds 2010; Hazans 2010). Thus, compared to Estonia, the more advantageous integration context in Latvia, in terms of the interactions at the level of everyday life and participation in the labour market²⁸, might support similar educational performances of ethnic groups. However, it is important to note that language reforms in Russian schools were highly debated in Latvia and caused an increase in the tensions between the two communities (Hogan-Brun et al. 2008).

Labour market entry of second generation immigrants might be complicated even if they succeed in the educational system. The results of this dissertation indicate that second and later generation immigrant Russian-speakers are less successful labour market entrants than ethnic majority youth in Estonia. Host country language skills are decisive for labour market integration. This tendency is similar with findings for the first generation immigrants in Western European countries (e.g. overview in Esser 2006). In Estonia, the implementation of strict language requirements is closely monitored in the labour market. Indeed, the acquisition of Estonian

²⁸ My conclusions here do not take into account participation in political institutions and political conflicts between ethnic groups. Although political participation is an important aspect of structural integration, it requires more profound analysis than was possible in the scope of this thesis.

language is viewed as a pragmatic necessity by the ethnic minority population but does not relate to improving inter-ethnic attitudes (Korts 2009). The situation in Estonia is in contrast to Ukraine where the proficiency in the official language is less important for successful labour market entry than in Estonia, as the Russian language is more highly rewarded. In addition to the linguistic closeness of Russian and Ukrainian languages, strong economic and political connections with Russia contribute to the linguistic situation in Ukraine. The influences of neighbouring Russia are more limited in Estonia, although it is clear that Russia has an impact on attitudes toward integration among Estonian Russian-speakers (Kruusvall et al. 2009). The comparison of Estonia and Ukraine underlines that despite the legal language requirements, the practical usage of minority and host country languages as well as their status in society affects the importance of language skills in the process of labour market entry.

The comparison of different Estonian regions showed that Estonian language proficiency is an important predictor of labour market success everywhere, while Russian language proficiency has almost no effect on transitions to the first stable job with higher occupational status. The ability to communicate in Russian is certainly required in the Estonian labour market for a number of jobs but some of these jobs are not higher-status (e.g. in the sales industries) and there seems to be sufficient high-level jobs for youth who do not speak Russian. However, in the Tallinn area, Russian language proficiency helps quicker transitions out of unemployment to any kind of first job (including short-term or unstable jobs). This finding is consistent with idea that ethnic minority language skills as human capital have a particular regional value in areas with high ethnic concentrations (Pendakur and Pendakur 2002; Esser 2004).

Crul and Vermuelen (2003) find that there is a clear polarisation within some ethnic groups regarding the success of structural integration in several Western European countries. In the Estonian context, the outcomes of structural integration seem to be divided along lines of linguistic competences within the Russian-speaking ethnic minority group. Findings suggest that the disadvantage of low social background, insufficient Estonian language proficiency and low educational attainment tend to accumulate for young Russian-speakers and result in serious difficulties for labour market entry. Second and later generation Russian-speakers who do not have good Estonian skills are the slowest in transiting to the labour market and they often settle in low-status jobs in enterprises where the majority of the other employees are Russian-speakers. Most probably many of them have studied in Russian schools and have few or no contact with Estonians, which infers that young Russian-speakers not sufficiently proficient in Estonian face either the risk of ethnic segmentation or marginality. Ethnic segmentation, i.e. inclusion into own ethnic group and exclusion from the host society, is especially likely for Russian-speakers without good Estonian language skills living in areas with large Russian-speaking communities like Tallinn and Eastern Estonia.

Belonging to the Russian-speaking minority affects the success of labour market entry even if the ethnic minority youth have good Estonian language skills. The results show that in areas with small Russian-speaking population, ethnic minority youth proficient in the host country language do not experience more difficulties at labour market entry than their Estonian peers, they are probably already more integrated with the ethnic majority population through school or friendship networks. However, being a member of the ethnic minority is a disadvantage for labour market entry in the Tallinn area but this is not the case in Eastern Estonia, where young Russian-speakers seem to manage even better than Estonians. It is likely that the almost similar size of the ethnic groups competing in the labour market and the relatively large number of people living in the Tallinn area supports a dual, ethnically segmented labour market. There are too few Estonians in Eastern Estonia for a similar divided labour market to develop. Furthermore, the social capital of young Russian-speakers might not be sufficient to compete with Estonians in Tallinn. The opportunities for the reproduction of useful social capital diminished for Russian-speakers in the 1990s (Vihalemm and Kalmus 2009; Kazjulja 2011). In Eastern Estonia, by contrast, Russian-speakers' ethnic capital such as social networks, language or even support of own ethnic community might smooth the transition to the labour market compared to young Estonians living in the same area.

Other possible reasons for ethnic differences in the Tallinn area are employers' discriminatory preferences or very high demands for Estonian language skills. Compared to other Estonian regions, Russian-speakers living in Tallinn perceive there is more unfair treatment in the labour market (Lauristin et al. 2011). The unfair treatment by employer might occur due to imperfect information about the capabilities of applicants in the employment process. For this reason, discrimination is particularly a risk at labour market entry when young people do not have previous work experience. Employers might prefer not to hire minority youth if they believe that members of the minority have generally less skills, e.g. their language skills are not good enough (Phelps 1972; Spence 1973). The question is also whether unequal chances are related to the public sector jobs, as there are many such workplaces in Tallinn. Previous research has shown that ethnic minorities with many resources (higher education, Estonian language skills and citizenship) have more equal chances with Estonians to achieve a higher position in the private sector than in the public sector (Helemäe 2008). In Eastern Estonia, the sizeable Russian community reduces the risk of discrimination for Russian-speakers. However, my analysis does not allow for making firm conclusions about discrimination because the ethnic gap in employment opportunities might also be caused by other characteristics, such as different social networks.

The results of this dissertation suggest that the structural integration of young Russian-speakers is neither a swift nor uniform process in Estonia. Young Russian-speakers' smaller successes in education and labour market entry can be seen as an outcome of ethnic-linguistic segmentation as well as reproduction of this type of

segmentation. Segmentation to own ethnic community does not contribute to upward mobility but rather turns into a mobility trap in terms of educational and labour market success. The lower socio-economic composition of Russian schools reflects the risk of downward mobility: the weaker labour market position of Russian-speaking parents translates into a less resourceful environment in Russian schools and result in the lower performances of ethnic minority students. The educational choices of Russian-speakers are less ambitious and they achieve lower positions at labour market entry. At the same time, expectations have a crucial effect on educational transitions. Previous studies have shown that ethnic minorities have lower expectations for educational success and they often perceive inequality of opportunities in the labour market (Saar 2008; Lindemann 2011a). Thus, according to the argumentation of the rational choice model, investing less in further education might be a rational decision at the individual level if expected returns are lower. However, there is no uniform pattern of downward mobility. Excellent Estonian language skills promote the successful structural integration of young Russian-speakers in securing higher levels of education and smoother transitions to the labour market.

These results are not surprising in light of the timing and the character of language and educational reforms in Estonia. At the beginning of the 1990s, the systems of language requirements and control were established but state-coordinated language teaching programmes started at a much later date. Thus, language management during the first decade of independence was mostly rule setting and controlling, without a systematic integration policy (Vihalemm and Siiner 2011). In addition, the implementation of the education reforms in Russian basic and upper secondary schools has been a long process in Estonia. The question is also whether or not the situation would have been different if, instead of a quick transition to Estonian language studies at the level of higher education, the educational reform had focused primarily on intensive language training at lower levels of education. The Integration Survey of 2011 showed that most Russian-speakers desire intensive Estonian language learning for their children at the pre-school level (Masso et al. 2011). In Russian basic schools, only about a fifth of students participate in language immersion programs or in special Estonian-language classes (HTM 2012) and implementing these programs has been more difficult in Eastern Estonia²⁹ (Sau-Ek et al. 2011). In Latvia, on the other hand, educational reforms in Russian schools were conducted slightly earlier than in Estonia and started from adapting bilingual teaching in all Russian basic schools³⁰. Studies show that bilingual teaching has improved Latvian language skills of students (Cara 2010; Zepa 2010). Despite the doubts about transition to bilingual education at upper secondary level, the results

²⁹ In addition to regional variations, the unsolved question is how the social background and parental language skills affect selection to language immersion programs.

³⁰ However, Russian-language instruction was eliminated from Latvian public higher education already in the 1990s.

of some standardised exams are even slightly better in Russian schools than in Latvian schools³¹ (Baltic Institute of Social Science 2009).

A further question is how the integration context in Estonia might lead to the accumulation of disadvantage over the life-course. Some educational transitions can be more consequential due to institutional arrangements in educational system. Such institutional arrangements might lead to accumulation of disadvantages at an early stage of the process and grow larger over time (DiPrete and Eirich 2006). In Estonia, it seems that the choice between Estonian and Russian basic school and even pre-school has more far-reaching consequences, because having good Estonian language skills is increasingly significant for the next step in the educational system. This is especially valid for the ability to learn in bilingual upper secondary school and participate in higher education. Also later in the life-course, labour market entry depends on a good command of Estonian.

In conclusion, the outcomes of youth structural integration vary in the three studied post-Soviet societies that are each hosts to large Russian-speaking minority groups. There are many similarities in the Estonian and Latvian contexts, although in Latvia, social distance between ethnic groups is smaller and there is no large ethnic gap in school performance. In Ukraine, success at transition to the labour market is more an issue of language than the ethnic group. The linguistic context in the Ukrainian labour market continuously supports the use of the ethnic minority language and Russian-speakers experience no difficulties at labour market entry. In Estonia, the large distance between ethnic groups in the educational system, and society in general, accompanied by the strong emphasis on Estonian language skills in the labour market means that structural integration remains a challenge for young Russian-speakers. Under these conditions, the linguistic division in the educational system is likely to promote the socio-economic separation of ethnic communities.

The focus of this dissertation was the structural dimension of integration, but integration also includes other aspects such as culture, ethnic identity and citizenship. Previous studies in Estonia have not found a significant relationship between structural integration and a greater sense of belonging to Estonian society (Nimmerfeldt et al. 2011). However, the question for the future is how the trend towards attaining education in Estonian schools, the transition to bilingual teaching in Russian upper secondary schools and improving Estonian language skills of Russian-speakers affect other aspects of integration.

This dissertation suggests possible explanations for the outcomes of structural integration although the longitudinal individual-level data that connects educational performance, choices and labour market entry is necessary for testing causal mechanisms directly. Another important issue concerns educational transitions between Russian and Estonian schools, particularly how Russian-speakers, who start their studies at Russian basic schools but change for Estonian school, manage

³¹ Baltic Institute of Social Science (2009) analysed the exams that were conducted at the end of upper secondary school from 2007 to 2009.

the transition. In addition, young people of all ethnicities are a dynamic population and leaving Estonia is an increasingly attractive option. Previous research among upper secondary school students has shown that about 40% of young Russian-speakers wish to leave Estonia to study or work in other countries (Masso and Kello 2011). This number is high although some of these youth might plan to return or have no real chances to leave in the first place. The future research should elaborate in more detail how educational and labour market opportunities in other European countries and the proximity of Russia affect the mechanisms discussed in this study, particularly the motivation to invest in language skills and education.

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PUBLICATIONS

I

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The School Performance of the Russian-Speaking Minority in Linguistically Divided Educational Systems: A Comparison of Estonia and Latvia

Kristina Lindemann

1 Introduction

Ethnic inequalities in education are characteristics of many European societies (Heath and Brinbaum 2007; Heath *et al.* 2008). Several studies have reported that the school performance differs significantly between the native and the immigrant population (Marks 2005; Schnepf 2007; Levels and Dronkers 2008). In a comparison of different Western European countries, Heath *et al.* (2008) conclude that the ethnic disadvantage in education is particularly visible in school performance, even though the educational choices of ethnic minorities might be even more ambitious compared to the majority. The different educational achievements of ethnic groups are often attributed to social background and aspirations. However, the school context may also account for the lower achievement of ethnic minority pupils (e.g. Portes and Hao 2004).

Although many studies have explored the ethnic differences in educational performance in Western European countries, this is a much less researched topic in Eastern European societies. This paper focuses on the educational achievement of the Russian-speaking minority in Estonia and Latvia. In these countries, the inflow of Russian-speaking immigrants was large during entire Soviet period (1944-1991). Since that time, schools in Estonia and Latvia have been divided on the basis of the language of instruction. Therefore, Russian-speaking pupils have the opportunity to study in their native language, although currently teaching is also partly conducted in the majority language at these schools. In the literature, the effect of bilingual education on the educational success has received little attention thus far (Esser 2006). Some previous studies have focused on the influence of multilingual teaching on the academic success of ethnic minority children (e.g. Greene 1998). However, the scope of the aforementioned research rather comprises language immersion programs at schools than educational systems divided on the basis of language. It is thus an important question whether the specific institutional arrangement of dividing the educational system according language of instruction has an impact on ethnic inequality in performance.

M. Windzio (ed.), *Integration and Inequality in Educational Institutions*

This paper explores the performance of pupils studying at schools in Estonia and Latvia with the majority language or Russian as language of instruction. The central research questions are (1) whether the opportunity to study in own mother tongue promotes the achievement of minority students and (2) how math performance is related to the individual social background, achievement motivation and the school context in linguistically divided educational systems. These questions are important from the theoretical perspective since previous literature on the integration of ethnic groups has predominantly overlooked the effects of linguistically divided educational systems.

The ambition is also to explore how specific societal contexts shape the achievement of minorities in schools with a different language of instruction. The immigration history of Russian-speakers was rather alike in Estonia and Latvia. However, compared to Latvia, the intermarriage rate between ethnic groups is lower in Estonia and communities are more separated socially. The Russian-speaking minority in Estonia is less dispersed geographically than in Latvia. In addition, the socio-economic differences between the ethnic communities are larger in Estonia than in Latvia (Hazans 2010; Rozenvalds 2010). Nevertheless, in both countries, issues related to minority schools were one of the most debated aspects of the educational reforms. In particular, the recent transition to bilingual teaching in Russian-medium schools has raised the questions about the quality of education in these schools.

In this study, data from OECD's PISA 2006 study is used which enables researchers to compare pupils' mathematical performance while taking into account the language spoken at home and the language of instruction at school. The analysis is conducted using multi-level techniques.

2 Background

Ethnic Minorities in Estonia and Latvia

Estonia and Latvia became hosts to a sizeable Russian-speaking minority after World War II. The inflow of Soviet military persons started immediately after the incorporation into the Soviet Union. In addition, the inflow of labour migrants was high during entire Soviet period as a result of a specific industrialisation policy. Mostly, Russian-speakers were arriving from Russia, Ukraine and Belarus. The ethnic composition of the populations of Estonia and Latvia changed significantly. The share of people identifying themselves as ethnic Estonians in Estonia decreased from 88% in 1934 to 62% in 1989. In Latvia, the number of ethnic Latvians dropped from 77% in 1935 to 52% in 1989. However, the proportions of natives have increased during last decades to 59% in Latvia and to 69% in Estonia (Central Statistical Bureau of Latvia 2010, Statistics Estonia 2010).

In both countries, the differences between the ethnic majority and the Russian-speaking minority are not very large in terms of age and gender distribution, average household size and education level. However, it has been argued that the differences between the native and the Russian-speaking communities are larger in Estonia than in Latvia (Aasland and Fløtten 2001). In Estonia, the residential location, division of labour and institutional ties overlapped with ethnic and language boundaries during the Soviet period (Hallik 2002). Although, a policy of segregation was also practised in Latvia (Priedīte 2005), there was more social interaction between the ethnic groups both at work and outside of work. Higher numbers of Russian-speakers in Latvia could speak the local language, and there were more interethnic marriages compared to Estonia (Aasland and Fløtten 2001). Mixed-ethnic marriages are still more common in Latvia. In 2009, about 21% of Latvians had a spouse from a different ethnicity than Latvian (Central Statistical Bureau of Latvia 2010). In contrast, only 4% of marriages were between Estonians and Russians in 2000 (Statistics Estonia 2010).

According to the 1989 USSR Census, 15% of Russians in Estonia and 22% of Russians in Latvia were fluent in the titular language (Pavlenko 2008). However, since the late 1980s the language situation has changed. The official language is Estonian in Estonia and Latvian in Latvia, while Russian is defined as a foreign language. The knowledge of the official language is rising, especially among the younger generation. Between 1989 and 2000, the percentage of the population able to speak majority language rose from 62% to 82% in Latvia and from 67% to 80% in Estonia (Hogan-Brun 2007).

The ethnic segmentation was a characteristic of the work sphere during Soviet times and is also present in the contemporary Estonian and Latvian labour market. In general, the labour market position of Russian-speaking minority became more vulnerable after regaining the independence. In both countries, the unemployment rate is higher among non-natives than among ethnic Latvians or Estonians. In addition, returns on education in terms of high wages are significantly higher for natives compared to minority members (Leping and Toomet 2008; Lindemann and Saar 2009; Hazans 2010). One important reason for such a tendency is insufficient skills in the official language. However, the ethnic pay gap in Latvia is modest compared to Estonia and the gap between the majority and minority unemployment rates is smaller in Latvia (Hazans 2010).

In addition, about 16% of the Latvian and 8% of the Estonian population were without any citizenship in 2009 (Central Statistical Bureau of Latvia 2010; Statistics Estonia 2010). However, there are no legal restrictions for children without citizenship to participate in educational system.

Estonian and Latvian Educational Systems

In both Estonia and Latvia, primary and lower secondary schools constitute one uniform basic school. Basic education begins at the age of seven and lasts nine

years. There are no tuition fees in public basic schools. According to the OECD (2010) Estonian and Latvian school systems are characterised by rather low levels of differentiation in selecting and grouping pupils. Thus, the learning environment in classrooms tends to be heterogeneous. However, some basic schools select pupils based on their ability in Estonia. In Latvia, it is generally not permitted to organise any admission tests for public schools, except for gymnasiums. After completion of basic education (lower secondary), pupils can choose to continue in a general secondary track or acquire some type of vocational education. This decision is typically made at the age of 15 or 16. In both countries, many pupils prefer to continue in the general secondary track as it offers the best opportunities for access to higher education (Trapenciere 2008, Saar and Lindemann 2008). In 2008/2009 about 64% of pupils studying at upper secondary level were enrolled in general secondary schools in Latvia and about 66% in Estonia (Central Statistical Bureau of Latvia 2010; Statistics Estonia 2010).

The division of schools on the basis of the language of instruction is a system that was inherited from the Soviet period, when Estonian and Latvian educational systems were part of the Soviet educational system. Studying in Russian was also an option at the level of higher education. Currently, the language of instruction at public higher education institutions is mainly the official language of the country, while it is also possible to study at Russian-language private universities.

Linguistically Divided Basic and Secondary Schools

During the last decades, there were substantial changes regarding Russian-medium basic and secondary schools in Estonia and Latvia. In general, basic schools are divided into (1) Estonian/Latvian-medium schools, (2) Russian-medium schools and (3) mixed schools (two-stream). Mixed or two-stream schools mean that some pupils study in classes with the majority language as the language of instruction and others in Russian as the language of instruction. In Estonia, Estonian-medium schools constituted 83% of all schools in 2006, and 4% of schools were mixed (Statistics Estonia 2010). At the same time in Latvia, 67% of all pupils were enrolled in Latvian-medium schools, 24% in Russian-medium schools and about 9% of pupils attended mixed schools. A small share of pupils is enrolled at other ethnic minority schools (Kehris and Landes 2007).

The importance of the official language in Russian-medium schools has increased. In Latvia, all Russian-medium basic schools had introduced one of five possible models of bilingual education curricula by the year 2002. At the upper secondary level, all Russian-medium schools are supposed to have at least 60% of studies in Latvian since the school year of 2006/2007. The implementation of this reform became the subject of heated debate in Latvia, with a resultant growth in inter-ethnic tension (Hogan-Brun 2007). In Estonia, the transition to bilingual teaching in upper secondary school is still ongoing. Pupils who started 10th grade in 2011 have to study 60% of their school subjects in Estonian. In recent years, the

special programmes for language immersion have become ever more widespread in Russian-medium basic schools. Nevertheless, the influence of language immersion should be minor for PISA 2006 participants.

In both countries, the proportion of pupils enrolled at Russian-medium schools has decreased over the last 20 years. The general number of Russian-speaking pupils has dropped and several Russian-medium schools have closed (Hogan-Brun et al. 2007). Some Russian-speaking pupils prefer majority schools. In Latvia, for instance, about 16% of pupils in Latvian-medium schools are ethnic minority children (Kehris and Landes 2007). Schools with Estonian or Latvian as the language of instruction are particularly valued among Russian-speaking parents who seek opportunities to help their children to become bilingual because the quality of teaching the national language in Russian-medium schools is considered insufficient (Hogan-Brun et al. 2007; Zepa et al. 2008). In Latvia, studies show that an important factor that influences school choice is the language proficiency of parents. The higher a parent's proficiency in Latvian, the greater is the possibility to choose a Latvian-medium school (Priedīte 2005).

Standardised state exams are conducted at the end of upper secondary education in both countries. The results of exams have been somewhat better for majority schools (Zepa 2010; NEQS 2010).

3 Theoretical Considerations

The situation of ethnic minorities in Estonia and Latvia differs in many respects from that of ethnic minorities in Western European countries and the U.S. However, theoretical approaches developed in these countries also contribute to the explanation of the educational performance of ethnic groups in the Baltic States.

Boudon (1974) uses the concept of primary and secondary effects to explain the influence of social background on educational performance and choices. While secondary effects indicate the influence of social background on educational choices, primary effects show the influence of social background on the academic performance of pupils. Primary effects could result from, for example, cultural, genetic or economic factors that differ between social classes (Van de Werfhorst and Van Tubergen 2007). It is widely accepted that performance differences are related to socialisation and parental involvement during childhood and as well to the opportunity to invest in good schools (Erikson and Jonsson 1996; Jonsson and Rudolphi 2011). In many countries, socio-economic background is an important reason for the overall weaker performance of immigrant pupils, but still disadvantages remain for several ethnic groups after parental characteristics are controlled for (Levels and Dronkers 2008).

Heath and Brinbaum (2007) argue that a parental lack of fluency in the majority language may make it difficult for children to succeed in their schoolwork. This may lead to lower achievements in test scores than would be expected on the basis of the parents' socio-economic position. There is some evidence that lan-

guage difficulties of students might contribute to second generation educational achievement (e.g. Schnepf 2007). However, the extent to which language difficulties affect the educational outcomes of the second generation is a rather unresolved issue (Heath et al. 2008).

Literature often points out that ethnic groups differ in terms of orientation toward schooling and achievement motivation (Kao and Thompson 2003). Immigrant parents' optimism about the prospects of their children is crucial (Kao and Tienda 1998). In addition, the migration experience might have an effect on aspirations. Parents who experienced downward mobility due to migration may expect the next generation to regain the lost social position through education (Platt 2005). On the other hand, Jonsson and Rudolphi (2011) argue that one plausible reason for some ethnic minorities' lower school performance in Sweden are low educational aspirations, which become visible in irregular school attendance and little focus on learning. In addition, attitudes toward schooling might be shaped by the ethnic community, and this effect might depend on how minorities are treated in the society and how they perceive their treatment. If minorities do not trust the educational system and feel that it threatens their minority identity, they may develop an oppositional culture to mainstream schooling as the most extreme response (Ogbu and Simons 1998).

Sørensen and Hallinan (1977) call attention to the organisational characteristics of schools that create differences in learning opportunities. As examples, these organisational characteristics include curriculum, instruction materials, teaching techniques, interaction style and pupil involvement. Ability and effort can be modified by those contextual factors (Sørensen and Hallinan 1977; Hallinan 2005). In addition, the social and ethnic composition of schools may influence the achievement of pupils. Pupils create the school's social environment from the advantages and disadvantages they bring from home to school. Several studies show that school composition – in terms of the average socio-economic status of the parents and the segmentation into ethnic groups – has an effect on educational achievement, in spite of pupils' individual characteristics (Bankston and Caldas 1996; Portes and Hao 2004).

These theoretical considerations are also helpful for explaining the situation of ethnic minorities in Estonia and Latvia. One explanation for the lower school performance of ethnic minorities is their language skills. Pupils who speak a minority language in home can have difficulties to understand the linguistic contexts of school tasks (Esser 2006). Unfortunately, the PISA 2006 survey does not directly measure language proficiency. Thus, it is not possible to draw definitive conclusions about the importance of language skills. However, these skills may lower the educational performance if the language of instruction at school differs from the language spoken at home. *Therefore, it is supposed that Russian-speaking pupils who attend Estonian-medium or Latvian-medium schools are likely to achieve lower test scores in mathematics in both countries. In contrast, Russian-speaking pupils who are enrolled in schools where Russian is the language of instruction should not experience any difficulties due to their language skills.*

Several individual characteristics may contribute to the differences in the educational achievement of ethnic minorities and the majority. Due to the specificity of immigration history during Soviet period, it is likely that native and Russian-speaking pupils do not differ significantly in terms of parental education level or cultural resources. Thus, minority pupils should not get less support in their schoolwork from parents. However, since the beginning of the 1990s, the Russian-speaking minority has been in a more disadvantaged position in the labour market. Thus, Russian-speaking families may have lesser financial resources to support their children in their educational career. Although the vast majority of 15-year-old pupils are studying at public school in Estonia and Latvia, Russian-speaking families may have fewer resources for covering other learning-related costs (e.g. books). *Therefore, social background may have some negative effects on the achievement of Russian-speaking pupils, but it is unlikely that social background is the reason for the achievement gap between majority and minority pupils.*

There is not much research about ethnic differences in educational aspirations and learning motivation in Estonia and Latvia. The Russian-speaking population of Estonia indicates a bit more often than Estonian-speakers that they want their children to go on to higher education (Saar 2008). Russian-speakers with higher education who have experienced downward mobility due to a lack in language skills may especially encourage their children to achieve academically if the distribution of opportunity in the educational system is perceived as equal. *However, occupational aspirations and the motivation to learn are not expected to be the reasons for the achievement gap between majority and Russian-speaking pupils.*

Characteristics of schools might also contribute to differences in the achievement of ethnic groups. In general, it seems that the opportunity to learn does not differ significantly in schools with the majority language and Russian as the language of instruction. In both countries, there is a unified national curriculum (Golubeva 2010). However, in Estonia, the transition to the new curriculum in mathematics in the second half of the 1990s was difficult for Russian-medium schools. In the years 1963 to 1991, the practice of teaching mathematics differed between schools with Estonian and Russian as their language of instruction, as the latter relied on Soviet textbooks and methods (there was no such difference in Latvia). Therefore, Russian teachers had difficulties in getting used to the new ways of teaching and textbooks (Monakov and Ševtšenko 2003). In both countries, the replacement of textbooks was slower in Russian-medium schools than in other schools due to time-consuming translation. *Thus, it is expected that there may be some achievement differences between schools that have Russian and schools that have the majority language as their language of instruction, especially in Estonia.*

The selection of pupils into schools influences the learning environment and also the resources available at school. According to PISA 2006 data, Russian-medium schools are not significantly less selective than majority schools regarding the importance of pupils' academic performance (analysis not presented here). *Thus, it is supposed that the selectivity of the school influences the achievement of pupils, but that it is not the reason for achievement differences between schools*

that have Russian and schools that have the majority language as their language of instruction.

The ethnic-linguistic composition of schools is not very heterogeneous in Estonia and Latvia. In Russian-medium schools most pupils are ethnic Russians or Russian-speakers from other ethnic groups. There is somewhat more heterogeneity in majority schools. The socio-economic composition of schools might be a bit lower in Russian-medium schools, especially in Estonia, where the labour market position between minority and majority groups differs more compared to Latvia (Hazans 2010). In addition, Russian-speaking parents with more resources seem to prefer schools with the majority language as the language of instruction in Estonia¹. *Therefore, it is supposed that the socio-economic composition of schools explains the differences in achievement between pupils in Russian-medium and pupils in majority schools, especially in Estonia.*

4 Data and Variables

The OECD Programme for International Student Assessment (PISA) focuses on pupils' competencies in reading, mathematics and science. PISA examines pupils' ability to use their knowledge and skills to meet real-life challenges. The third PISA survey (2006) includes 30 OECD countries and 27 partner countries, including Estonia and Latvia. The average age of the participating pupils was 15. PISA samples students randomly in two stages: schools are first sampled from the country-level and then pupils are sampled in the participating schools (OECD 2009). The PISA survey also includes a school questionnaire.

The sample size in Estonia was 4865 pupils (127 Estonian-medium, 38 Russian-medium and 4 mixed schools). The Latvian sample included 4719 pupils (114 Latvian-medium, 46 Russian-medium and 16 mixed schools). The majority of sampled pupils were studying at basic school.

Almost all Russian-speaking pupils in the sample were born in the host country. About 40% of Russian-speaking pupils in Estonia and 20% in Latvia are second-generation immigrants. Due to this specific context, integration into the host society was not necessary prior to 1991, and the differences between young second and third-generation Russian-speakers should be rather irrelevant in these countries.

The dependent variable is mathematical performance. Since assessing each student with the whole item battery in the PISA test would be time-consuming, only certain subsamples of pupils responded to each item. In order to compare the ability of pupils, the cognitive data in the PISA study are scaled on the basis of Item Response Theory. Such modeling estimates the ability of each pupil by using the

¹ PISA 2006 data show that in Estonia, parental occupational position is higher for Russian-speakers in Estonian-medium schools than in Russian-medium schools, whereas no such difference is found in Latvia (analysis not presented here).

number of correct answers and the difficulty of the items. The PISA data-set contains five plausible values that represent the ability in mathematics for each pupil. These scores are standardised to an international mean of 500 and a standard deviation of 100 (OECD 2009).

Independent variables include pupil and school-level variables. At the pupil level, *gender* and *grade* are included as control variables. The following variables describing family background are used in analysis:

- *Language spoken at home* specifies whether the pupil speaks the majority language (Estonian or Latvian), Russian or another language at home².
- *Highest parental educational level* is measured according to the ISCED scale which is divided into 4 levels: (1) ISCED 2 or lower, (2) ISCED 3 and 4, (3) ISCED 5b, and (4) ISCED 5a and 6³
- *Highest parental occupational status* is measured according to the ISEI scale (the International Socio-Economic Index of Occupational Status)
- *Number of books at home*, which refers to cultural resources available at home.

Pupils' *occupational aspirations* are measured by an open-ended question which recorded their expected occupational status at age 30. For analysis, occupational aspirations are divided into five groups: (1) managers or professionals, (2) lower white-collar, (3) skilled worker, (4) unskilled worker and (5) missing. The relationship between occupational aspirations and educational performance may be bi-directional. *Motivation* was measured by the question: "In general, how important do you think it is for you to do well in mathematics?". Four categories are separated: (1) very important, (2) important, (3) of little importance or none at all, and (4) missing.

At the school level, the following variables describing school context were included:

- *Language of instruction* is defined on the basis of the test language. Schools are divided into Estonian-medium/Latvian-medium, Russian-medium and mixed schools.
- *School location* specifies whether the school is located in a village (up to 3000 inhabitants), in a town or in the city (more than 100 000 inhabitants).
- *Selectivity of pupils*: (1) high – a pupil's good academic record (including placement tests) is a prerequisite or high priority for admission, (2) low – academic records or placement tests are not a high priority. This

² Pupils were asked what language they speak at home most of the time, with the option to select only one language. Thus, it is impossible to identify bilingual families.

³ PISA coding of parental education does not allow separation into the vocational and the general track of secondary education in Estonia and Latvia.

question is about general practice and evaluated by the schools' headmasters/headmistresses.

- *Socio-economic composition of school* is specified as the average highest occupational status (ISEI) of the parents of the school's pupils.

5 Method

At first, there is an overview given of the average mathematical performance in schools with different language of instruction. Means, standard errors and standard deviations are computed using then mean of five plausible values (OECD 2009). For multilevel analysis, all missing data was deleted. The variable describing the highest parental occupational status had the most missing values (1.7% in Estonia and 4.5% in Latvia). The final sample size for Estonia is 4709 pupils and 169 schools and for Latvia 4385 pupils and 172 schools. All continuous variables were centred on the grand mean. The multilevel analysis was carried out using the HLM program.

As a first step of multilevel analysis, we analyse a model without explanatory variables. This intercept-only model is useful because it gives an estimate of intra-class correlation, which is defined as the population variance between level 2 units divided by the total variance (Hox 2002). In the next step, pupil-level variables describing social background, the language spoken at home, motivation and occupational aspirations are added to the model (Model 1). This model is compared with the intercept-only model and the amount of variance explained by introducing explanatory variables is calculated. Then the language of instruction is included (Model 2). Next, location and selectivity are controlled for (Model 3). In the last model we also add the socio-economic composition of the school (Model 4). In these four models the regression intercept is assumed to vary across the groups, but regression slopes are fixed. Nevertheless, models with school-level characteristics were also estimated with varying slopes, which basically yielded the same results. Therefore, we prefer the simpler model. The improvement of the models is tested with the likelihood-ratio test, which is based on the difference between deviance statistics of two models (Raudenbush and Bryk, 2002). In addition, an interaction term of the language of instruction at school and the language spoken at home is tested. Separate models are estimated for Estonian-medium and Latvian-medium schools.

6 Results

Descriptive Overview

In Estonia, the overall mean score for mathematics is 515 points, which is a result above OECD average (OECD 2007a). Despite this good overall result there are large differences between pupils who speak Estonian at home and those who speak Russian at home (Table 1). Pupils who speak another language at home (only a few cases) also achieve lower scores compared to Estonian-speakers. There are significant achievement differences between pupils studying at schools with Estonian as the language of instruction and those studying at schools with Russian as the language of instruction, resulting in respectively 523 and 486 points. In Estonia, only 2% of the pupils in our sample are studying at mixed schools. The achievement in these mixed schools is lower compared to Estonian-medium schools.

A number of Russian-speaking children also study at schools with Estonian as the language of instruction. This seems to pay off in terms of performance, even though Russian-speakers in Estonian-medium schools achieve scores that are, on average, a bit lower than the scores of Estonian-speakers (Table 1). Table 1 also indicates that the academic performance of Russian-speakers does not differ depending on which generation of immigrants they are.

Table 1 Average mathematical performance in Estonia

	Mean	Standard error of mean	Standard deviation
Overall mean	515	2.7	80
<i>Language spoken at home:</i>			
Estonian	524	3.1	78
Russian	491*	5.4	80
Other	451*	20.5	90
<i>Language of instruction at school:</i>			
Estonian	523	3.0	79
Russian	486*	6.2	80
Mixed	491*	6.8	68
<i>Different groups according the language in school and home:</i>			
Estonian-speakers at Estonian schools	524	3.1	79
Russian-speakers at Estonian schools	513 ¹	6.1	77
Russian-speakers at Russian schools	488*	6.3	80
<i>Immigrant generation:</i>			
Russian-speakers, at least 3 rd generation and natives	491	5.7	
Russian-speakers, 2 nd generation	497	5.8	
Russian-speakers, 1 st generation	475	17.1	

* Average test score of the group differs significantly compared to Estonian-speakers and/or pupils studying at Estonian schools.

1) Russian-speakers perform significantly better at Estonian schools than at Russian schools.

Source: own calculations based on PISA 2006, replicate weights have been taken into account (OECD 2009).

The average mathematical performance in Latvia is 486 points, which is below OECD average (OECD 2007a). Table 2 indicates that the average performance of pupils who speak Russian at home does not differ from pupils who speak Latvian at home. In addition, pupils at schools with Latvian and Russian as the language of instruction have almost the same average score. Pupils who attend mixed schools have significantly lower average scores in mathematics, but mixed schools are more common in rural areas.

There are significant performance differences between pupils within Latvian-medium schools (Table 2). Russian-speakers achieve lower scores at these schools than Latvian-speakers. Russian-speakers attending mixed schools have the lowest performance, while Latvian-speakers at the same schools perform somewhat better. Table 2 also shows that in Latvia, similar to Estonia, immigration generation does not differentiate the achievements of pupils.

Table 2 Average mathematical performance in Latvia

	Mean	Standard error of mean	Standard deviation
Overall mean	486	3.0	83
<i>Language spoken at home:</i>			
Latvian	489	3.3	80
Russian	485	6.1	85
Other	477	23.0	96
<i>Language of instruction at school:</i>			
Latvian	488	3.3	81
Russian	492 ¹	7.4	85
Mixed	452*	10.9	83
<i>Different groups according the language at school and home:</i>			
Latvian-speakers at Latvian schools	491	3.4	80
Russian-speakers at Latvian schools	471*	6.8	84
Russian-speakers at Russian schools	494	7.5	84
Latvian-speakers at mixed schools	463	12.6	80
Russian-speakers at mixed schools	442* ²	10.7	81
<i>Immigrant generation:</i>			
Russian-speakers, at least 3 rd immigrant generation and natives	485	6.8	
Russian-speakers, 2 nd generation	492	5.6	
Russian-speakers, 1 st generation	486	17.2	

* Average test score of the group differs significantly compared to Latvian-speakers and/or pupils studying at Latvian schools.

1) Pupils who study at Russian schools perform significantly better than pupils at mixed schools.

2) Russian-speakers perform significantly better at Russian schools than at mixed schools.

Source: own calculations based on PISA 2006, replicate weights have been taken into account (OECD 2009).

Multilevel Models

In a first step of multilevel modelling, the intercept-only models were estimated. The intra-class correlation indicates that about 25.7% of variance in mathematical performance is at the school level in Estonia and 22.2% in Latvia. Therefore pupils from different schools achieve somewhat different scores. However, the variance between schools in Estonia and Latvia is much lower compared with Hungary, the Czech Republic and Slovakia (OECD 2007b), where selection into different educational tracks takes place at an earlier age than 15 (e.g. Kogan2008). In contrast, compared to Sweden, Finland and Denmark, the between-school variance is a bit higher in Estonia and Latvia (OECD 2007b).

The Case of Estonia

Table 3 presents further multilevel models for Estonia. The difference in deviance statistics between the intercept-only model and Model 1 indicates that adding pupil-level variables improves model fit significantly. It appears that almost 29% of variance is explained at the pupil level by social background and measures of motivation and aspirations. Not surprisingly, these variables also explain almost 53% of variance at the school level. For example, the language spoken at home varies significantly across schools. In other words, this shows that individual-level, explanatory variables are divided rather selectively across the groups, i.e. the composition of groups is rather unequal (Hox 2002). Similarly with descriptive analysis, Model 1 shows that Russian-speaking pupils achieve lower test scores compared to Estonian-speakers, even if they share a similar social background. In addition, motivation and occupational aspirations do not explain the disadvantage of Russian-speakers.

School-level variables are added in further steps of the analysis (each step improved model fit). First, the language of instruction at school is included in Model 2. It appears that pupils at Russian-medium schools and mixed schools achieve significantly lower test scores compared to pupils at Estonian-medium schools. Therefore, the language of instruction at school has an effect on achievement, despite similar social background, motivation or occupational aspirations.

The selectivity of the school and school location are added into Model 3. The negative effect of studying at a Russian-medium school does not decrease. Thus, the way schools select their pupils is not the reason for the lower achievement of pupils at these schools. However, the measure of selectivity captures only school practices without taking into account that the school can only choose from among the pupils who apply. Although the OECD (2010) claims that classrooms in Estonia are heterogeneous, the difference between more and less selective schools is apparent in analysis, even in cases of similar parental background. Thus, the advantage of more selective schools could be related to learning environments and teaching practices.

Finally, the school composition in terms of the average highest occupational status of parents is added in Model 4. School composition has a strong influence on mathematical performance and significantly reduces the negative effect of studying at a Russian-medium school. Therefore, the low achievement of pupils at these schools can be at least partly explained by the socio-economic composition of schools, which influences the achievement of pupils despite their individual social backgrounds.

Table 3 The influence of pupil and school-level variables on mathematical performance in Estonia, coefficients and standard errors of multilevel models

	Model 1		Model 2		Model 3		Model 4	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Intercept	555	4.4	558	4.4	555	7.7	550	7.9
<i>Pupil-level variables</i>								
Language spoken at home (ref. Estonian)								
Russian	-21.9***	4.8	-11.1**	5.1	-13.0**	5.3	-13.2**	5.2
Other	-78.5**	18.0	-66.7***	17.7	-67.9***	18.0	-67.5***	18.1
Highest parental education level (ref. ISCED 5a or 6)								
ISCED 2 or lower	-6.4	8.7	-7.0	8.7	-6.3	8.7	-5.0	8.7
ISCED 3 or 4	2.6	2.4	2.3	2.4	2.3	2.4	2.3	2.4
ISCED 5b	-7.2**	2.9	-7.4**	3.0	-7.6**	3.0	-7.7**	3.0
Highest parental occupational status								
0.73***	0.1	0.72***	0.1	0.71***	0.1	0.68***	0.1	
Number of books at home (levels)								
10.6***	1.1	10.7***	1.1	10.6***	1.1	10.5***	1.1	
Motivation (ref. very important)								
Important	-12.5***	1.9	-12.2***	2.0	-12.3***	1.9	-12.3***	2.0
Little importance or none at all	-25.7***	3.9	-25.5***	3.9	-25.8***	3.9	-26.0***	3.9
Missing	-22.9**	10.6	-22.3**	10.5	-22.4**	10.6	-22.3**	10.6
Expected occupational status at age 30 (ref. manager or professional)								
Lower white-collar	-24.2***	3.3	-24.2***	3.3	-24.1***	3.3	-24.2***	3.3
Skilled worker	-36.2***	4.2	-36.1***	4.1	-35.9***	4.1	-35.7***	4.2
Unskilled worker	-21.0***	3.6	-21.1***	3.6	-21.0***	3.6	-21.2***	3.6
Missing	-28.0***	3.6	-27.9***	3.5	-27.9***	3.5	-27.9***	3.6
<i>School-level variables</i>								
Language of instruction at school (ref. Estonian)								
Russian			-26.8***	9.6	-29.9***	9.4	-16.8*	9.4
Mixed			-26.2***	8.0	-22.5***	8.5	-13.9	8.8
School location (ref. city)								
Town					-0.3	7.2	3.2	6.6
Village					-6.8	8.2	8.2	10.0
Selectivity (ref. low)								
High					15.9***	5.7	10.3**	4.8
School composition (average parental occupational status)								
							1.50**	0.7
Deviance	51982		51968		51953		51939	
Variance explained at								
pupil level	28.8%		28.8%		28.8%		28.8%	
school level	52.7%		55.7%		61.3%		66.7%	

Note: controlling for gender and grade, * p<0.10, ** p<0.05, *** p<0.01.

Source: own calculations based on PISA 2006.

The Case of Latvia

Table 4 presents multilevel models with pupil and school-level variables for Latvia. Model 1 includes all pupil-level characteristics, which explain about 26% of variance at pupil level and about 38% of variance at school level. Therefore in Latvia, similarly to Estonia, schools differ significantly regarding pupils' social background, the language spoken at home, motivations and aspirations. However, contrary to descriptive analysis, multilevel analysis indicates that pupils who speak Latvian at home achieve somewhat better test scores in mathematics compared to pupils whose language at home is Russian (Model 1).

Further models also include school-level variables (each of the following models has a significantly better fit compared to earlier models). The language of instruction at school is added to Model 2. It appears that pupils at Russian-medium schools perform similarly to pupils at Latvian-medium schools. Descriptive statistics already indicated that academic achievement at Latvian-medium and Russian-medium schools is similar, and taking into account social background, aspirations and motivations does not change this outcome. In contrast, pupils attending mixed schools achieve somewhat lower test scores compared to those who attend Latvian-medium schools.

These effects do not change after school location and selectivity are included into Model 3. School location accounts significantly for pupils' performance differences. Pupils studying in villages or towns perform lower than pupils studying in larger cities⁴. Selection does not have any effect. In general, the selection of pupils is less common practice in Latvia than in Estonia.

The measure of school composition in terms of the average highest occupational status of the parents is added in Model 4. It does not have significant influence on mathematical performance, but it reduces the negative effect of studying at mixed schools. Thus, the lower test scores of mixed schools are partly explained by the lower socio-economic composition of these schools.

⁴ Latvian PISA data indicates that the average test score of pupils in Riga and other urban areas is much higher compared to the test scores of pupils from rural areas. However, these regional disparities are largely conditioned by family background (Geske et al. 2006).

Table 4 The influence of pupil and school-level variables on mathematical performance in Latvia, coefficients and standard errors of multilevel models

	Model 1		Model 2		Model 3		Model 4	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Intercept	528	4.7	528	4.7	542	7.7	539	7.9
<i>Pupil-level variables</i>								
Language spoken at home (ref. Latvian)								
Russian	-9.2**	4.4	-10.8**	5.1	-11.3**	5.1	-11.3**	5.1
Other	-2.6	19.2	-2.4	19.1	-2.3	19.1	-2.4	19.1
Highest parental education level (ref. ISCED 5a or 6)								
ISCED 2 or lower	-35.3***	13.4	-35.2***	13.4	-34.7***	13.4	-34.3**	13.3
ISCED 3 or 4	-5.2*	3.0	-5.2*	3.0	-4.9	3.0	-4.8	3.1
ISCED 5b	-6.7**	2.9	-6.7**	2.9	-6.6**	2.9	-6.6**	2.9
Highest parental occupational status								
0.44***	0.1	0.44***	0.1	0.42***	0.1	0.41***	0.1	
Number of books at home (levels)								
11.8***	1.2	11.8***	1.2	11.7***	1.2	11.7***	1.2	
Motivation (ref. very important)								
Important	-9.1***	2.7	-9.1***	2.7	-9.2***	2.7	-9.2***	2.7
Little importance or none at all	-25.2***	4.8	-25.3***	4.8	-25.3***	4.8	-25.5***	4.8
Missing	-35.4***	10.3	-35.4***	10.3	-35.5***	10.2	-35.6***	10.2
Expected occupational status at age 30 (ref. manager or professional)								
Lower white-collar	-27.8***	3.2	-27.8***	3.2	-27.6***	3.2	-27.5***	3.3
Skilled worker	-35.0***	5.7	-35.0***	5.7	-34.3***	5.6	-34.1***	5.6
Unskilled worker	-21.4***	3.9	-21.4***	3.9	-21.4***	3.9	-21.3***	4.0
Missing	-34.0***	3.8	-34.0***	3.8	-33.8***	3.8	-33.6***	3.8
<i>School-level variables</i>								
Language of instruction at school (ref. Latvian)								
Russian			6.7	9.4	-2.8	10.2	-0.22	10.0
Mixed			-16.2**	8.1	-17.2*	9.5	-13.1	8.6
School location (ref. city)								
Town					-13.6*	7.4	-12.2	8.4
Village					-20.5**	8.7	-13.5	10.6
Selectivity (ref. low)								
High					6.7	6.9	4.8	8.4
School composition (average parental occupational status)								
							0.73	0.9
Deviance	49010		49005		48994		48991	
Variance explained at								
pupil level	26.4%		26.4%		26.4%		26.4%	
school level	38.3%		40.5%		44.9%		46.1%	

Note: controlling for gender and grade, * p<0.10, ** p<0.05, *** p<0.01.

Source: own calculations based on PISA 2006.

Russian-Speakers at Majority Language Schools

In both countries, pupils who speak Russian at home achieve lower test scores than native speakers of the national language – despite similar individual-level characteristics and school contexts (Table 3 and 4). The interaction between the language spoken at home and the language of instruction at school was added to Model 4 for the purpose of testing how Russian-speakers manage at majority-language schools. The results were significant for Estonia, but not for Latvia (models not presented here). In Latvia it also seems that Russian-speakers at mixed schools perform worse than Latvian-speakers, but the number of mixed schools in the sample is too small to calculate reliable estimates.

Table 5 presents separate models for Estonian-medium and Latvian-medium schools. It appears that Russian-speakers achieve significantly lower test scores at Estonian-medium schools compared to Estonian-speakers, even in case of similar parental background, motivations, aspirations and school characteristics. The gap between groups is about 14 points. The reason for this difference could be language difficulties, but unfortunately the PISA 2006 study does not include a measure for language skills. In Latvia, there is no significant difference between the performance of Russian-speakers and Latvian-speakers. Compared to Estonia, Russian-speaking pupils in Latvia are more likely to have one parent who is a speaker of the majority language due to a higher (ethnic) intermarriage rate.

Table 5 Mathematical performance at majority-language schools in Estonia and Latvia, coefficients and standard errors of multilevel models

	Estonian-medium schools in Estonia		Latvian-medium schools in Latvia	
	Coef.	S.E.	Coef.	S.E.
Intercept	555	8.3	540	8.9
<i>Pupil-level variables</i>				
Language spoken at home (ref. Estonian/Latvian)				
Russian	-14.1***	5.6	-6.2	6.8
Other	-1.8	16.9	-9.3	26.2
Highest parental education level (ref. ISCED 5a or 6)				
ISCED 2 or lower	-5.7	9.1	-40.1**	16.7
ISCED 3 or 4	2.5	2.8	-6.5*	3.8
ISCED 5b	-7.5**	3.5	-10.6**	4.4
Highest parental occupational status	0.68***	0.1	0.38***	0.1
Number of books at home (levels)	10.6***	1.2	11.7***	1.4

Continued...	Estonian-medium schools in Estonia		Latvian-medium schools in Latvia	
	Coef.	S.E.	Coef.	S.E.
Motivation (ref. very important)				
Important	-12.5***	2.3	-7.2**	3.2
Little importance or none at all	-25.2***	4.4	-20.4***	6.3
Missing	-11.4	16.2	-39.2***	12.5
Expected occupational status at age 30 (ref. manager or professional)				
Lower white-collar	-25.6***	3.7	-30.4***	4.2
Skilled worker	-32.1***	4.8	-34.8***	5.9
Unskilled worker	-24.6***	3.7	-21.2***	5.0
Missing	-36.6***	3.8	-34.9***	4.7
<i>School-level variables</i>				
School location (ref. city)				
Town	0.6	7.2	-11.3	10.9
Village	-1.4	10.6	-15.9	13.9
Selectivity (ref. low)				
High	10.4	5.2	4.1	10.4
School composition (average parental occupational status)	1.0	0.7	0.14	1.1

Note: controlling for gender and grade, * p<0.10, ** p<0.05, *** p<0.01.

Source: own calculations based on PISA 2006.

7 Conclusion

This paper compared two post-socialist countries – Estonia and Latvia. In general, societal developments and the educational systems in Estonia and Latvia have many similar characteristics. There are large Russian-speaking minority groups in both countries. Many of them are post-war immigrants or their descendants. During Soviet times, these ethnic communities were separated by clear lines in these societies, demarcating labour market segmentation and the division of the educational system on the basis of language. After Estonia and Latvia regained their independence, uncertainty increased – especially for the Russian-speaking community, due to difficulties related to citizenship status and lack of proficiency in the official language. The need for a stronger integration of society was one incentive for the school reforms in Estonia and Latvia, which aimed to render Russian-medium schools more bilingual.

Ethnic differences in the educational performance and academic outcomes are apparent in various societies. It is often emphasized that educational achievement

is connected to language skills. Esser (2006) points out that immigrant children usually have to cope with tasks that are embedded in a linguistic context or related to a cultural context that is closely associated with the local language and local cultural knowledge. In contrast, the influence of language skills should be relatively minor in linguistically divided educational systems, where ethnic minority pupils have an opportunity to study at least partly in their native language. The results of this paper show that the linguistically divided educational systems in Estonia and Latvia produce rather different outcomes. In Latvia, pupils at Russian-medium and Latvian-medium schools achieve similar test scores in mathematics. In contrast, pupils at Russian-medium schools in Estonia achieve lower results in mathematics than pupils at majority-language schools.

In Estonia and Latvia, immigrants were not negatively selected in terms of education. Analysis indicates that, contrary to findings in several Western European countries, individual parental background is not the reason for the minority group's disadvantage in Estonia. In addition, their motivations and aspirations do not cause Russian-speakers' lower achievement in Estonia, although these characteristics have significant influence on the educational performance. In Latvia, similarly, parental background, motivations and aspirations seem not to be the factors that would especially promote Russian-speakers performance, but rather are important for all pupils. In line with this argument, according to cross-tabulations (not shown here) there is no difference in motivation between ethnic groups.

The question remains of how to explain the achievement gap between pupils studying at schools with a different language of instruction in Estonia, while there is no such trend in Latvia. Moreover, cross-sectional PISA data include the measurement of performance only at one time point, which complicates conclusions regarding whether and how learning at Russian-medium schools directly causes lower educational performance. However, Russian-speaking pupils who were enrolled at Russian-medium schools in 2006 should not have experienced difficulties due to a lack of language skills. In addition, results show that the gap between Estonian-medium and Russian-medium schools is not directly conditioned by how schools select pupils on the basis of academic ability. Pupils in more selective schools still achieve better results, especially in Estonia. Unfortunately, this measure captures the selection process only partially, since parents and pupils also select schools.

Findings indicate that the lower performance of pupils in Russian-medium schools is to some extent explained by the socio-economic composition of these schools in Estonia. This has an effect on achievement irrespective of individual social background. It has been argued that the socio-economic composition of schools aggregates the influence of school peers on pupils' school experience and their academic gains (Portes and Hao 2004). Therefore, it seems that the downward mobility of the Russian-speaking community in Estonia has had some influence also on the social environment of Russian-medium schools. We thus predict a *secondary effect*, in terms of an unintended consequence, of dividing the educational system on the basis of language. In Latvia, in contrast, the socio-economic composition of schools and their selection practices do not have direct influence

on pupils' educational achievement, even if the school is similar in type and location.

Besides the composition of schools, differences in academic performance may be conditioned by organisational characteristics that influence learning opportunities in schools. The curricula differences in mathematics are expected to be minor between Russian-medium and majority language schools in both countries. For Estonia, however, Monakov and Ševtšenko (2003) mention difficulties in Russian-medium schools that are related to the transition to a new curriculum in mathematics. An additional explanation could be the teaching methods or focus. The international OECD's TALIS study in Estonia shows that teachers at schools with Russian as the language of instruction believe more strongly in providing correct solutions to pupils and they put more emphasis on the necessity of studying facts than teachers in Estonian-medium schools (Loogma et al. 2009). In addition, the international TIMSS study of 2003 shows that the gap in the academic performance between 8th graders in Russian-medium and Estonian-medium schools is wider in reasoning and analytical skills, whereas there are no significant differences in terms of factual knowledge and conceptual understanding (Mere et al. 2006). Unfortunately, no such comparative evidence is available for Latvia.

An additional question is how educational reforms have influenced the trust in schools in both countries. In Latvia, the transition to bilingual teaching in Russian-medium basic schools already started in 2002, while it is still ongoing in Estonia. It has been argued that the way a minority community perceives its members' treatment by society influences their trust in the educational system and their certainty about maintaining their minority group identity (Ogbu and Simons 1998). Community forces may also influence the certainty of Russian-speaking pupils in Estonia and Latvia. For example, the Russian community has pointed out that the transition to bilingual teaching in Russian-medium schools may be a threat to their identity (Hogan-Brun 2007). However, recent educational reforms mean that schools in Estonia and Latvia are changing and it is crucial to see whether ethnic differences in educational performance persist over longer periods of time.

The number of Russian-speaking pupils in Estonian-medium and Latvian-medium schools is growing (Hogan-Brun et al. 2007; Kehris and Landes 2007). Results indicate that Russian-speakers who study in the majority language in Estonia perform significantly lower than native pupils, while no such clear disadvantage is visible in Latvia. One reason may be the lack of pupils' or even parents' language skills, which means that parents are able to offer only limited help with schoolwork. However, in Latvia, minority parents who opt for Latvian-medium schools often have some proficiency in Latvian (Priedīte 2005). Unfortunately, not much is known about the language skills of Russian-speaking parents in Estonia.

The comparison of Estonia and Latvia reveals that pupils' opportunity to study in their native language does not reduce ethnic differences in the educational performance in these countries. The Latvian case shows that minority pupils manage well both at Latvian-medium and Russian-medium schools. In Estonia, however, Russian-speaking pupils who study at Russian-medium or Estonian-medium schools achieve lower test scores than their Estonian-speaking peers. The integra-

tion context of the country might be an important factor that influences academic performance. Compared to Estonia, the distance between the majority and the Russian-speaking minority is smaller in Latvia in terms of socio-economic position, social interaction, geographical distribution and interethnic marriages (Aasland and Fløtten 2001; Hazans 2010; Rozenvalds 2010). This could account for the similar academic performance of pupils at Latvian-medium and Russian-medium schools, whereas clear differences emerge in Estonia.

Two important limitations of this study were the lack of a measurement to ascertain language skills and the absence of the possibility to identify bilingual families. Such data would help to explain the situation of Russian-speaking pupils at schools where the majority language is the language of instruction. In addition, more research is needed to find out whether the language of instruction determines the educational choices of different ethnic groups in Estonia and Latvia, which would make it possible to estimate more precisely the outcomes of these linguistically divided educational systems.

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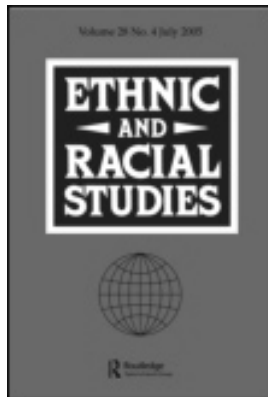
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Ethnic inequalities in education: second-generation Russians in Estonia

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(First submission December 2010; First published September 2011)

Abstract

This paper investigates ethnic educational inequality in Estonia focusing on second-generation Russians. In Estonia, contrary to many other European countries, the overall educational attainment of second-generation immigrants has, compared to their parents, diverged from the educational attainment of the native population. Our results from logistic regression analysis indicate that the odds of Russians continuing in general secondary and higher education are lower compared to native Estonians. Parental economic, cultural, and host country specific resources do not account for ethnic differences in educational transition. Adolescents' own language proficiency and citizenship have a strong impact on educational decisions. We conclude that the Estonian education system contributes to the emergence of ethnic differences. While basic and secondary schools function in either the Estonian or Russian languages, the curricula in public higher education institutions are taught mainly in Estonian, which might lower expectations of success amongst Russian adolescents.

Keywords: Education; Estonia; language; Russian minority; second generation; social background.

Introduction

One of the most basic questions of integration research is whether the life circumstances of immigrants and natives converge or diverge over time. Educational attainment is of key importance for the integration of immigrants and their descendants because education substantially shapes labour market outcomes, but also provides knowledge and connections with the cultural and social environment of the host country. Integration is often a challenge for first-generation immigrants

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due to the lack of resources, like non-fluency in the language of the host country, foreign educational credentials, and foreign work experience (Heath and Cheung 2007).

In most Western European countries, the disadvantage is to some extent decreased for the second generation who have grown up and attained education in the host country, as they are more fluent in the host language and may have broader social networks (Crul and Vermeulen 2003; Thomson and Crul 2007). However, the lower educational outcomes of the second generation provide a challenge for explanations of educational inequalities in Western Europe (see Modood 2004; Heath and Brinbaum 2007). Research has found that ethnic disparities in education, in various countries, are largely the result of differences in social background (Kao and Thompson 2003; Kristen and Granato 2007).

However, the explanation of ethnic inequalities in Eastern European education systems has received much less attention. The topic of this article is ethnic educational inequalities in Estonian society focusing on second-generation Russians. Estonia is particularly interesting as one third of the current Estonian population belongs to ethnic minorities, with ethnic Russians forming the biggest minority group of approximately 26 per cent of the total population. During the Soviet period, official policies and institutions strongly supported the ethnic segmentation of Estonian society, for example, the establishment of a separate Russian language education system. Newcomers were treated as permanent residents with all related rights. According to Soviet institutional rules they were not obliged to invest in Estonian-specific human capital and their educational credentials obtained outside Estonia were also relevant in Estonia.

The collapse of the Soviet Union and the marketization of the Estonian economy drastically changed the political, social, and economic status of minority groups (Aasland and Fløtten 2001). The transition, for Russians, was not just about moving from a planned economy to a free market, but of moving from being a privileged national ethnic group within a large 'empire' to an ethnic minority within a new nation state (Kennedy 2002). The nation state model, based on the legal continuity principle, became the basis for many new social and political institutions and policies, such as the Citizenship Law¹ and the Language Law (Pettai and Hallik 2002). The extremely neo-liberal character of the market reforms and the ethnic nation state ideology created a new kind of opportunity structure, contributing to the emergence of new economic and ethnic inequalities (Vetik and Helemäe 2011).

Because Estonia provides a very different social context compared to countries that have experienced classic forms of immigration, it is of considerable interest to see how those theories developed for Western

countries help to explain the ethnic inequalities in the Estonian education system. Our first aim is to investigate whether there are tendencies of convergence or divergence between the educational attainments of ethnic groups over time. Our second aim is to research how the educational transition of second-generation immigrants and native Estonians are related to differences in social origin. We also analyse the impact of Estonian language competence and Estonian citizenship of the first-generation immigrants (parents) and the second generation on educational transitions. We use data from the Estonian TIES survey (2007/2008), which contains detailed information about the educational careers of ethnic Estonians and second-generation Russians living in two Estonian cities.

Theoretical background

Western academic literature provides many explanations for educational inequality emanating from the assumption that the first generation of classic labour migrants was negatively selected in terms of human capital. This is the case for immigrant communities in many European, as well as other immigration countries, e.g., the United States, Canada, and Australia (Heath and Cheung 2007) where large, relatively low-educated and poorly qualified migrant communities have emerged. Ethnic disparities in education are largely the result of differences in social background and are a matter of social rather than of specific ethnic inequalities (Kao and Thompson 2003; Fekjær 2007; Kristen and Granato 2007). However, in several Western countries, the educational disadvantage for ethnic minorities persists even after taking into account parental socio-economic status (Heath and Brinbaum 2007).

Sociologists of education have made a distinction between the primary (academic achievement) and secondary (educational choices) effects of social background (Boudon 1974). This distinction has been extended to the effects of ethnic origin distinguishing between ethnic inequalities on attainment tests and continuation rates following the end of compulsory schooling and a move into higher education (Heath, Rethon and Kilpi 2008; Jonsson and Rudolphi 2011). In the context of primary effects, the lack of the requisite cultural capital, and particularly a parental lack of fluency in the language of the majority population, may make it difficult for children of immigrants to succeed in their schoolwork (Van de Werforst and Van Tubergen 2007).

There might also be secondary effects of stratification on educational choices. An individual's educational choices will include considerations of the possible costs and benefits of alternatives in the education system, and of the probabilities of different outcomes,

such as educational success or failure (Esser 2004; Jonsson and Rudolphi 2011). According to these models, the costs, benefits, and probabilities should vary between members of the second generation and the native population. Immigrant parents typically have lower earnings and therefore have difficulty in investing in the education of their children. Ethnic minorities may also experience discrimination in the labour market and existing structural barriers may have an impact on their beliefs about the instrumental value of schooling, decreasing their investments in education (Ogbu and Simons 1998). Immigrant parents might lack familiarity with the functioning of the education system and be less informed about the outcomes of possible educational choices, which affect the educational decisions of second-generation immigrants especially at younger ages (Kristen and Granato 2007). Parents' low level of information also strongly reduces expectations of educational success (Esser 2004).

Educational decisions also depend on aspirations which might differ for ethnic groups (Kao and Thompson 2003). However, some authors indicate that rather than referring to ethnic disadvantages, aspirations may account for a group's more ambitious choices and exceptional educational success (Kao 2004).

Educational decision-making remains conditioned by the situation in which it takes place. This is likely to lead to differing evaluations of costs and benefits as well as the chances of success (Breen and Goldthorpe 2000). National institutions, such as education systems, play a central role in this evaluation process. Furthermore, institutions may fail to be inclusive for ethnic minorities and reproduce inequality (Crul and Schneider 2010). While some institutional regulations may apply only to the children of immigrants, those institutional rules that apply to all children may have a different impact on ethnic groups (Kristen and Granato 2007). For example, the differentiation of secondary education may be of additional importance for children of immigrants because they may prefer to attain a vocational education, which is a less risky choice for them.

The second question is whether social background has the same effect for all ethnic groups. Parental occupational status may matter less for the second generation if their parents' social standing declined after immigration, but the education of the children may give the family an opportunity to reclaim what the parents have lost due to immigration (Platt 2005). Therefore, parental education may have a stronger effect on educational attainment among ethnic minority youth, especially if ethnic minority parents have experienced discrimination and language problems in the host country's labour market (Fekjer 2007).

In addition, youths' friendships and parental networks can be seen as social resources which enable them to negotiate transitions in the

education system (Helve and Bynner 2007). Moreover, youth minority identity is influenced by their attachment to schools, where they actively generate social capital (Kuusisto 2010; Weller 2010).

All these theoretical approaches are based on empirical evidence from Western countries. We are interested in how much these explanations account for ethnic differences in the Estonian education system.

Estonian context and hypotheses

Immigration to Estonia

The patterns of immigration to Estonia differed from the classic labour migration in many other Western countries. In the period 1945–1989 the number of Russian speakers in Estonia increased from 26,000 to 602,000 (Vetik 1993). Such a dramatic demographic shift was the result of the policies of the Soviet Union after World War Two, which aimed to reconstruct Estonia – both economically and socially – as an integral part of the Soviet Union (Mettam and Williams 2001). In the 1960s, immigration was promoted and controlled only via organized labour recruitment. Among the workforce, Estonia received numerous bureaucrats and high-ranking officials to oversee the implementation of Soviet policies both in the state administration and state enterprises (Kulu 2001). Many Russians migrated to Estonia immediately after finishing either vocational or higher education. However, in the early 1980s, the educational level of immigrants arriving in Estonia deteriorated substantially. The majority of them were young people without any vocational training (Saar and Titma 1992).

Education system

Basic and secondary schools in Estonia are mainly state-funded schools. After basic school (lower secondary), the education system is divided into three tracks: general secondary education, vocational secondary education, and vocational education.² The secondary education system in Estonia allows little mobility between programmes. Although there are no legal restrictions for graduates of vocational secondary schools to apply to higher education institutions, vocational schools remain educational dead ends: their graduates have lower national examination grades (NEQS 2009) and very low chances of attaining higher tertiary education.

Enrolment levels in tertiary education have increased significantly. The number of tertiary students relative to the population of individuals in the five-year age group following leaving secondary school reached 64 per cent in 2003 (OECD 2007). In 2005–2006,

20 per cent of students were studying in private higher education institutions. Students in Estonia fall into one of two distinct groups: state-funded students (for whom the state pays tuition fees) and fee-paying students who pay the full costs of their tuition. More than half of all students paid tuition fees in 2007 (HTM 2009).

Compared with Western European countries, a very important specificity is that, in Soviet times, Estonia had two parallel education systems that divided the population on the basis of the language of instruction (Russian or Estonian). Russian-language education is still provided in state-funded basic and secondary schools. However, in 2007 educational reform began, which aims to transform general secondary schools with Russian language of instruction into bilingual schools, where 60 per cent of studies will be in Estonian.

During the Soviet period, universities provided education in Estonian and Russian. Shortly after 1991, the state-funded universities quickly moved to teaching in only Estonian. Consequently, the language of instruction is now mainly Estonian in state-funded higher education institutions. However, several private universities have been established, which provide the opportunity to also study in Russian, but students have to pay tuition fees. This bias of state-funded higher education towards providing instruction in Estonian forms a clear disadvantage for Russian-speaking school leavers attempting to gain access to these schools (OECD 2007). Estonian Ministry of Education and Research (2009) provides statistics for secondary school graduates who continued their studies in higher education. In 2007, while 55 per cent of Estonian-language secondary school leavers accessed a state-funded place in tertiary education, 49 per cent of Russian-secondary school leavers did so. About 52 per cent of Russian-language secondary school leavers continued their studies in Estonian. In total, 11 per cent of all students in higher education are studying in Russian, predominantly in private higher education institutions (HTM 2009).

We suppose that institutional conditions coupled with educational expansion have led to an increase of inequality in the educational attainment of natives and ethnic minorities. In the context of the post-World War Two Soviet migrations to Estonia, we expect *ethnic differences in educational attainment of the parental generation do not exist, whereas growing ethnic educational inequality does exist for the second generation.*

Accounting for ethnic differences in education

According to the census data from 1989, the average educational level of Russians residing in Estonia was somewhat higher than the average educational level of Estonians (Lindemann and Saar 2011). The first-generation migrants were not negatively selected in terms of their

education and their educational qualifications did not lose their value after migration because of the harmonized education system in the Soviet Union. Therefore, we suppose that *the educational background of parents does not explain ethnic differences in educational transitions of youths in Estonia*.

Educational transitions are related to school performance, but we are not able to include this aspect in our analysis. However, the results of standardized state exams at secondary education graduation show that pupils in Estonian and Russian schools had rather similar achievement scores (with exceptions in some subjects) (NEQS 2009). On the other hand, results from PISA-study in 2006 indicate that students of Estonian schools have higher average educational performance than students of Russian schools (Kitsing 2008).

Educational opportunities for individuals not sufficiently proficient in Estonian can be limited because the main language of instruction in higher education institutions is Estonian. According to the data from the survey 'Integration of Estonian Society: Monitoring 2008' only 27 per cent of 15–29 year old Russian-speaking respondents estimated their knowledge of Estonian as fluent. The assessment of the quality of teaching of Estonian in school was negative (Saar 2008).

The continuation of studies in private higher education institutions, which provide instruction in Russian, is expensive. Insufficient proficiency in Estonian generally means that continuing studies is possible only if the individual or parents have sufficient economic resources. As inflow into higher education institutions is mostly from general secondary schools, lower success expectations for transition to higher education may also affect the choice of the secondary school track of Russian-speaking youth. They may prefer to access vocational secondary education because continuing their studies in general secondary education is not a rational choice for them.

On the other hand, second-generation immigrants may foresee discrimination in the labour market. In Estonia, ethnic minorities feel that their labour market opportunities are not equal with Estonians (Helemäe 2008). The gain from education for the Russian minority remains smaller than for Estonians (Leping and Toomet 2008). Thus, their choice not to pursue general secondary and higher education might be a result of having difficulty in attaining higher status jobs despite their educational level. Hence, *we expect to find significant gross and net effects of ethnicity on transition to general secondary schools as well as to higher education institutions*.

Immigrant parents' low level of information strongly reduces expectations of success and makes investments in education unlikely (Esser 2004). However, the existence of schools with Estonian and Russian language of instruction makes this reasoning questionable. Therefore, the Estonian-language proficiency of immigrant parents is

expected to give no advantages for the second generation in the education system, while second-generation adolescents' language skills are supposed to be crucial for transition to higher education. Citizenship does not directly limit opportunities in the education system. However, Estonian citizenship, especially if acquired through the process of naturalization, might refer to adolescents' higher ambitions and abilities. In addition, more opportunities to participate in societal processes and wider access to professional jobs might encourage adolescents with Estonian citizenship to continue their studies. Hence, *we suppose that parental country-specific capital has no impact on the educational transitions of the second generation, while second generation immigrants' language skills and citizenship are expected to influence transition to higher education.*

An interesting issue is whether social background has the same effect for all ethnic groups. Although first-generation immigrants did not experience any decline in their social position after moving to Estonia, the situation of the Russian minority in the Estonian labour market has been more vulnerable since transition to the market economy and their returns from education in terms of economic success have been lower (Leping and Toomet 2008). Therefore, it is possible that the parents of second-generation Russians need an even higher educational level than their Estonian counterparts to produce similar educational opportunities for their children. Hence, *we suppose that parents' education has a strong impact on the educational choices of Russian youth, while the occupational position of parents is less relevant for them compared to Estonians.*

The importance of social capital on educational choices has been often emphasized. Vihalemm and Kalmus (2009) argue that the opportunities for the reproduction of social capital have diminished for Russian-speaking minorities. As a result social capital is less valued among ethnic minorities in Estonia. Unfortunately, we are not able to include social networks at the time of educational transition into our analysis.

Data and method

We use data from the Estonian TIES survey, 2007–2008, coordinated by the Institute of International and Social Studies (Tallinn University), which is related to the international research project 'The Integration of the European Second Generation' (TIES).³ The survey took place in two cities, Tallinn (the capital) and Kohtla-Järve (an industrial north-east city) in which Russians comprise 37 per cent and 70 per cent respectively of the populations. The survey sample was based on random selection from the population register. Face-to-face interviews with 18–35-year-old Estonians and Russians were

conducted in both languages, Estonian and Russian. Respondents were asked to retrospectively create their educational histories. Although the sample is restricted to just two cities, the advantages of this survey are the detailed retrospective data about educational histories, social background, and Estonian-specific characteristics of parents and respondents.

The respondents, whose parents are either both Russians or at least one of them was not born in Estonia, were defined as second generation. The defining of ethnicity was based on self-evaluation. In total, the sample consisted of 500 Estonians and 500 second generation Russians (58 per cent of whom were Estonian citizens).

Our first aim is to research tendencies of convergence or divergence of educational attainment of ethnic groups over time. We used the dissimilarity index to compare educational composition of the parental and second generations. The index of dissimilarity is defined by:

$$D = \frac{1}{2} \sum |A_k/A - B_k/B|$$

in which A is the number of individuals belonging to group A, B is the number of persons belonging to group B, A_k is the number of individuals belonging to group A and category k, and B_k is the number of individuals belonging to group B and category k.

The second aim of analysis is to investigate educational transitions. We carried out logistic regression models in order to estimate to what extent the ethnicity or social background of parents has an effect on transitions to secondary and higher education. At first, we focused on the probability of selecting general secondary education rather than vocational secondary education. Therefore, we took the sub-sample of young people who enter secondary education, from which we took the sub-sample of respondents who completed secondary education and analyse whether or not they enter higher educational institutions (Table 1). Those who do not enter higher education comprise individuals who take up vocational training or decide not to pursue further education.

Heath and Cheung (2007) suggest that in evaluating ethnic minority disadvantage within an education system it is important to distinguish between three distinct concepts: (1) gross disadvantage; (2) net disadvantage after controlling for social background and other individual characteristics; and (3) the differential impact of social background.

We follow the same logic of analysis and incorporate variables sequentially into models in order to separate the gross and net disadvantages. We started with the model for the gross effect of ethnicity, into which only ethnicity is entered as a predictor of

Table 1 *Distribution of sub-samples by educational choice and ethnic group, %*

		Estonian	Russian
Secondary education:	Vocational	25	33
	General	75	67
	Total	100	100
	N	421	423
Higher education:	No higher	46	53
	Higher	54	47
	Total	100	100
	N	342	345

Source: TIES (2007/2008).

transitions in the education system. In subsequent models, we tested the roles of demographic characteristics and parental resources as explanatory variables to find out the net effect of ethnicity. Finally, separate regression analysis for ethnic groups explains the influence of country-specific resources and the differential impact of parental resources.

Explanatory variables

We focused on the highest occupational group of parents when the respondent was fifteen years old; thus, we used a fourfold schema: (1) managerial, professional; (2) lower non-manual worker; (3) skilled manual worker; and (4) unskilled manual worker.

The measure of highest parental educational attainment is ranked from highest to lowest: (1) higher education; (2) vocational or professional secondary education; (3) general secondary education; (4) primary or basic education. The number of books in the respondent's home when they were fifteen is included in the analysis. This variable measures the cultural resources available at home.

Estonian-language proficiency and Estonian citizenship of parents serve as a proxy for parental country-specific human capital. Respondents evaluated their parents' ability to speak, write, and read Estonian. We combined these measures into four categories: poor, rather poor, rather good, and good skills (the highest level was taken into account).

We were unable to adequately estimate the respondent's Estonian language proficiency at the time of their educational transitions because our data was retrospective. However, we included the measurement of Estonian language skills at the time of interview. Respondents evaluated two aspects of their language skills – spoken and written – which we combined into four categories: (1) very good, (2) good, (3) moderate, (4) poor. Our measurement of language skills

may have overestimated the importance of language skills on educational decisions since respondents might have acquired better language skills during their studies in general secondary school or while attaining higher education. In addition, we included the citizenship of respondents at the time of making their decision about education. Table 2 indicates that although Estonian-language skills and citizenship are to some extent related, there are also some non-citizens with very good language skills and vice versa.

In the context of the transition to higher education, we considered the additional variable of the secondary school track. We also controlled for gender, region (Tallinn, Kohtla-Järve), and the period of graduation from basic or secondary school.

Results

Educational attainment of parents and second generation

Table 3 gives an overview of the educational composition of the parental and second generations. The index of dissimilarity shows that educational attainment has extensively changed over the course of a generation differing more for second-generation Russians and young Estonians than for their parents. Second-generation Russian men and women more frequently attained vocational or professional secondary education compared to their Estonian peers, while Estonian men and women more frequently completed general secondary school and attained higher education. Thus, contrary to most Western European countries, the educational gap between second-generation immigrants and the native ethnic majority has increased compared to their parents' generation.

Transitions in the education system

As the educational attainment of second-generation Russians and young Estonians is quite different, we examined how the ethnicity and social background of parents influence transitions in the education system. Figure 1 presents the odds ratios of transition to general secondary school and to higher education by comparing the effect of ethnicity in different models and illustrating what happens to the initial ethnic disadvantages when taking the relevant background variables into account. Values below 1 indicate that the chances of transition for second-generation Russians are lower than those of Estonians.

Figure 1 indicates that there is a clear gross effect of ethnicity on transitions in the education system. Compared to Estonians, Russians are less likely to choose to study in general secondary school as

Table 2 *Estonian-specific capital of respondents in sub-samples for transition to secondary and higher education, %*

	Estonian language skills					Total	N
	Poor	Moderate	Good	Very good			
Sample for transition to secondary education:	Estonian citizenship	15	20	36	29	100	146
	No Estonian citizenship	34	23	29	14	100	277
Sample for transition to higher education:	Estonian citizenship	10	16	42	32	100	154
	No Estonian citizenship	39	22	27	12	100	191

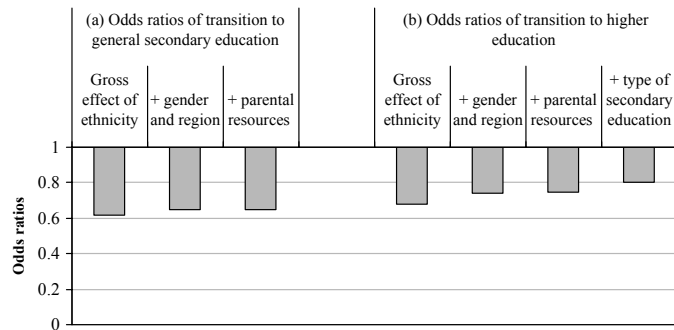
Source: TIES (2007/2008).

Table 3 Educational composition of parental and second generation by percentages and the index of dissimilarity

	Father		2nd Generation Men		Mother		2nd Generation Women	
	Estonian	Russian	Estonian	Russian	Estonian	Russian	Estonian	Russian
Primary and basic	14.7	7.1	16.2	13.3	9.2	5.2	10.9	13.8
Vocational/professional	42.4	44.7	39.6	56.2	42.6	43.4	33.6	47.7
secondary								
General secondary	22.7	23.3	23.4	18.1	23.1	23.6	20.0	15.9
Higher	20.2	24.9	20.7	12.4	25.1	27.8	35.5	22.6
Total	100	100	100	100	100	100	100	100
Index of dissimilarity	.073		.161		.038		.170	

Source: TIES (2007/2008).

Figure 1 Gross and net ethnic educational disadvantages in transition to general secondary education and higher education, models from stepwise logistic regression analysis



Notes: Model fit (pseudo R^2) for models estimating transition to general secondary education is as follows: (1) gross effect of ethnicity $R^2 = 0.04$, (2) + controlling for gender and region $R^2 = 0.09$, (3) + controlling for parental resources $R^2 = 0.14$.

Model fit (pseudo R^2) for models estimating transition to higher education is as follows: (1) gross effect of ethnicity $R^2 = 0.04$, (2) + controlling for gender and region $R^2 = 0.06$, (3) + controlling for parental resources $R^2 = 0.13$, (4) + controlling for type of secondary education $R^2 = 0.19$. In analysis period of graduation from previous educational level is taken into account.

Source: TIES (2007/2008).

opposed to other types of secondary education. In addition, the odds of second-generation Russians making a transition to higher education are lower compared to Estonians. Controlling for demographic characteristics indicates that ethnic differences remain significant in the instances of the same gender and city of residence.

Taking into account parental resources, such as occupation, education, and cultural resources, does not reduce the strong effect of ethnicity on educational transitions, and indeed second-generation Russians still encounter disadvantages. Thus, as expected, variances in social backgrounds do not explain ethnic differences in educational transitions in Estonia. Thus, the situation in Estonia is in distinct contrast to most Western European countries, where the low performance of the second generation is primarily explained by the negative aspects of parental education and social position.

Models with interaction effects between ethnicity and parental resources indicate that the influence of parental resources on educational decisions differ for ethnic groups (not presented here). Therefore, we carried out separate logistic regression models for Estonians and second generation Russians.

Table 4 Transition to general secondary education (compared to other types of secondary education): logistic regression models, odds ratios, standard errors between brackets

	Russians			
	Estonians	Model 1	Model 2	Model 3
<i>Highest parental occupational group</i>				
Lower non-manual worker	0.99 (0.5)	1.30 (0.5)	1.28 (0.6)	1.27 (0.6)
Skilled manual worker	0.73 (0.3)	1.26 (0.5)	1.31 (0.6)	1.11 (0.5)
Unskilled manual worker	0.32* (0.2)	1.70 (1.0)	1.75 (1.1)	1.80 (1.2)
<i>Managerial, professional (ref.)</i>				
<i>Highest parental education</i>				
Primary, basic	0.44 (0.3)	0.10** (0.1)	0.10** (0.1)	0.16* (0.1)
General secondary	0.50* (0.2)	0.42** (0.1)	0.46** (0.2)	0.57 (0.2)
Vocational and professional secondary	0.96 (0.3)	0.87 (0.3)	0.96 (0.3)	1.12 (0.3)
<i>Higher (ref.)</i>				
<i>Number of books</i>				
Up to 50	0.31*** (0.1)	0.30*** (0.1)	0.29*** (0.1)	0.32*** (0.1)
51 to 100	0.66 (0.2)	0.79 (0.2)	0.78 (0.2)	0.84 (0.3)
More than 100 (ref.)				
<i>Language skills of parents</i>				
Poor				
Rather poor			1.19 (0.5)	1.52 (0.7)
Rather good			1.00 (0.4)	1.15 (0.4)
Good skills (ref.)			0.76 (0.3)	0.85 (0.3)
<i>Parental Estonian citizenship</i>				
At least one parent			1.75** (0.5)	1.47 (0.5)
Neither parent (ref.)				

Table 4 (Continued)

	Russians		
	Estonians	Model 1	Model 2
<i>Citizenship at the time of decision</i>			
Estonian citizenship			1.19 (0.4)
no Estonian citizenship (ref.)			
<i>Language skills</i>			
Poor			0.26*** (0.1)
Moderate			0.38** (0.2)
Good			0.94 (0.4)
Very good (ref.)			
Pseudo R square	0.14	0.17	0.22
Number of cases	421	423	423

Notes: Controlling for period of finishing basic education, gender and region; ref. = referent group. ***p < 0.01; **p < 0.05; *p < 0.10. Source: TIES (2007/2008).

Table 4 presents the choice of secondary school. Parental occupation has some effect on the odds of Estonians entering general secondary education, while no such effect appears for second-generation Russians. In contrast, parental education has a significant influence on the odds of second-generation Russian youths continuing studies in general secondary education. In addition, cultural resources (the number of books at home) seem to affect the school choice of both ethnic groups.

We also tested additional models with Estonian-specific resources for second-generation Russians. Table 4 indicates that the language proficiency of parents does not influence the choice of secondary track (Model 2 for Russians) and also the positive effect of parental citizenship disappears when the Estonian-specific resources of the second generation are included in the model (Model 3 for Russians). In theory, parental capital, which is specific to the host country, should influence educational transitions of children because immigrant parents may be less capable of helping their children with school work and they lack knowledge about how the education system functions. However, in Estonia, the majority of second-generation Russians continue to study in secondary school in Russian, which might be the reason that language skills of parents do not have any direct effect on educational choices when the socio-economic background is controlled.

On the other hand, the Estonian-language skills of respondents seem to have a strong relation with school choice. However, this effect might be bi-directional, i.e., attending general secondary school increased Russian youths' Estonian-language proficiency. In contrast, the citizenship of the respondent has no effect on school choice.

Table 5 presents the logistic regression models for transition to higher education separately for Estonians and second-generation Russians. Parental occupational position significantly shapes the opportunities of Estonian youth but this does not apply to second-generation Russians. However, the highest parental education does influence significantly the opportunities of both ethnic groups and particularly clear differences become visible in the model for second-generation Russians. It seems that second-generation Russians require parents with higher education in order to enter higher education.

The missing effect of parental occupational position and the strong effect of parental educational level for the transition of second-generation Russians might be explained by the difficulties Russian parents have in using their education in the labour market, especially higher education (e.g., Saar and Kazjulja 2002; Helemäe 2008). However, educational attainment is also related to aspirations, which might explain why parental higher education is significant for second-generation Russians, despite lower economic returns from education in

Table 5 Transition to higher education (compared to not continuing studies in higher education after attainment of secondary education): logistic regression models, odds ratios, standard errors between brackets

	Russians		
	Model 1	Model 2	Model 3
<i>Highest parental occupational group</i>			
Lower non-manual worker	0.55 (0.3)	0.62 (0.3)	0.63 (0.3)
Skilled manual worker	0.25*** (0.1)	0.88 (0.4)	0.71 (0.4)
Unskilled manual worker	0.17*** (0.1)	0.67 (0.5)	0.52 (0.4)
Manager, professional (ref.)			
<i>Highest parental education</i>			
Primary, basic ^a	2.66 (2.0)	0.61 (0.8)	0.64 (0.9)
General secondary	0.67 (0.3)	0.14*** (0.1)	0.15*** (0.1)
Vocational and professional secondary	0.58* (0.2)	0.47** (0.2)	0.52* (0.2)
Higher (ref.)			
<i>Number of books</i>			
Up to 50	0.43** (0.2)	0.73 (0.3)	0.80 (0.4)
51 to 100	0.46** (0.1)	0.97 (0.3)	0.99 (0.3)
More than 100 (ref.)			
<i>Language skills of parents</i>			
Poor			
Fairly poor		0.98 (0.4)	1.16 (0.6)
Fairly good		1.13 (0.4)	1.27 (0.5)
Good (ref.)		1.00 (0.4)	1.05 (0.4)
<i>Parental Estonian citizenship</i>			
At least one parent		1.01 (0.3)	0.55 (0.2)
Neither parent (ref.)			

Table 5 (Continued)

	Russians			
	Estonians	Model 1	Model 2	Model 3
<i>Citizenship at the time of decision</i>				
Estonian citizenship				3.02*** (1.1)
no Estonian citizenship (ref.)				
<i>Language skills</i>				
Poor				0.29*** (0.1)
Moderate				0.57 (0.3)
Good				0.50* (0.2)
Very good (ref.)				
Pseudo R square	0.19	0.25	0.25	0.30
Number of cases	342	345	345	345

Notes: Controlling for period of finishing secondary education, gender, region and type of secondary education; ref. = referent group, ***p < 0.01; **p < 0.05; *p < 0.10.

^a The highest parental education is primary or basic for only 2 per cent of Russians and 5 per cent of Estonians
Source: TIES (2007/2008).

the labour market. Interestingly, cultural resources do not influence the decisions of Russian adolescents about continuing in higher education, while cultural resources seem to play an important role for Estonians. However, since a smaller number of Russians than Estonians continue in general secondary education, this group is already more selective. Thus, the influence of cultural capital might be mediated through the track of secondary education.

In Table 5, the effect of country-specific human capital is additionally controlled for Russians (Model 2 for parents and Model 3 for the second generation). As expected, the decision to continue in higher education does not depend on the Estonian-language skills or citizenship of parents. Estonian citizenship and language proficiency of a student significantly increases the probability of continuing studies in higher education. Thus, despite the existence of private higher education institutions with Russian-language instruction, Estonian-specific resources have a strong impact on the probability of continuing studies in higher education institutions.

Conclusions

Most researchers agree that tendencies of convergence or divergence between different ethnic groups are dependent on a set of contextual and historical conditions (Reitz 2002). National contexts vary widely in the types of opportunity they offer to the second generation. Estonian society during the Soviet period was ethnically segmented. The education system was also divided into two parts on the basis of the language of instruction. This parallelism inherited from the Soviet period might have an impact on educational paths of different ethnic groups in contemporary Estonia.

In most traditional immigration countries, there are tendencies of convergence of educational attainment between natives and immigrants (Thomson and Crul 2007). In Estonia, we found that second-generation Russians' dissimilarity to Estonians in terms of education has increased compared to their parents' generation. Ethnic inequalities have emerged for the second generation, as situations for Russians have become more disadvantageous.

In Western European countries, social background appears to be an important explanation for differences in educational attainment between natives and some ethnic minority groups. In Estonia, as expected, this explanation is not adequate to account for the educational differences between Estonians and Russians because the first generation of immigrant population was not characterized by lower social background. However, this does not mean that the processes of social reproduction are not significant in Estonia. Social background influences the educational opportunities of Estonians and

Russians, but it is not a reason behind the more disadvantaged situation of second-generation Russians.

In most Western European countries, social background impacts on the educational attainment of students of both ethnic minority and majority, in much the same way. As expected for Estonia, our results indicate that parental occupational position matters more for the educational choices of natives than for the second generation, which might be related to Russian minority difficulties after societal transition in finding occupational positions matching their level of education (Helemäe 2008) and also their lower economic returns from educational attainment (Leping and Toomet 2008). However, whereas educational background is important for both ethnic groups, for Russians parental educational resources are still not powerful enough to bridge the ethnic gap.

Research in Western European countries has shown that one important reason why the second generation might experience disadvantages in society is a lack of fluency in the language of the host country, and more broadly, the lack of country-specific capital (Heath and Cheung 2007). In addition, the country-specific capital of parents relates to the educational transition that the second generation makes (Heath and Brinbaum 2007). However, in the Estonian context, the general human capital of parents is a more important factor than their country-specific human capital. We did not find any impact of Estonian-language proficiency or Estonian citizenship of the parental generation on the educational opportunities of their children. In contrast, Estonian citizenship and Estonian-language proficiency of the second generation significantly increased the probability of continuing studies in higher education. Estonian citizenship might provide positivism about future prospects (e.g., greater chances to participate in society or access to higher professional posts in the public sector that require citizenship), which encourages the continuing of studies in higher education.

Therefore, the analysis revealed a significant net effect of ethnicity on educational transitions, which is not explained by demographical or socio-economic background. It is likely that social networks of second-generation Russian adolescents might be less beneficial as they have fewer friends or siblings who continue their studies in higher education compared to Estonian adolescents. A further issue remains concerning how more disadvantageous educational transitions might influence the construction of minority identity.

However, we suppose that changed institutional conditions have had the most important impact on the second generation's educational attainment by decreasing their possibility of attaining higher education. After 1991, instead of a gradual change in the education system, the government chose to effect a quick transition by having Estonian

as the sole language of instruction in higher education institutions. At the same time, the quality of teaching the Estonian language in Russian secondary school was rather poor. Although there are no legal restrictions for ethnic minorities to access any level of education, in practice higher education opportunities for individuals not proficient in Estonian are limited. Russian adolescents who graduate secondary school with Russian language of instruction can continue their studies at tertiary level in Estonian, or for a tuition fee in Russian in private higher education institutions. Most likely, a gradual transition of the education system starting from the lower levels of education would have avoided the Russian minority's more disadvantageous situation regarding access to higher education.

The occurrence of ethnic differences in educational transitions in Estonia can be seen to have a rational basis once the implications of the resources, opportunities, and constraints are taken into account. Russians may adapt their choices to the perceived opportunity set. Swift (2003) calls this process adaptive preference formation and indicates that even the belief that the mechanism of allocation is biased (the belief that Estonians have better opportunities to attain higher education) is enough to make it rational not to try, irrespective of whether or not the belief is false. The special situation in Estonia after structural changes and especially after transition to Estonian-language teaching in public higher education might have reduced actual opportunities as well as the expectations of success of Russian adolescents. The threshold can only be overcome by a clear increase in opportunities and expectations of success. The data of the survey 'Integration of Estonian Society: Monitoring 2008' confirms that only a quarter of people with an ethnic minority background think that the opportunities for ethnic minorities to attain higher education are equal to those of Estonians (Saar 2008).

High educational aspirations might account for the more ambitious educational choices of ethnic minorities (Kao 2004). Saar (2008) finds that educational aspirations of the Russian minority are similar or even higher compared to Estonians. Thus, it seems that rapid changes in Estonian society have not reduced general educational aspirations, while expectations for educational success have decreased for ethnic minorities.

Esser (2004) indicates that even if certain ethnic groups are able to ensure a high degree of success in education then ethnic inequalities may still appear in labour market success. But it will serve to reduce the evaluation of education and the expectations of success for the following generation. As a result, clear mobility restraints are to be anticipated as is the stabilization of ethnic inequalities. In Estonia, this situation is a result of both generic and ethnic stratification processes,

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influenced by the Soviet past and structured by policies of the Estonian state (Vetik and Helemäe 2011).

We conclude that the rational basis of educational choices, determined by institutional conditions, might be the main mechanism producing ethnic educational inequalities in Estonia. Therefore, the Estonian case particularly highlights the importance of the perception of opportunities related to a particular institutional context.

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Notes

1. According to the Citizenship Law, individuals who were citizens before 1940 and their descendants were granted citizenship. The other option for achieving citizenship is through naturalization, for which individuals have to pass an examination to demonstrate their knowledge of the Estonian language and the country. Children born after 1991 achieve citizenship without naturalization. (All the respondents of the TIES survey of 2007/2008 were born before 1991).
2. Until 1999, students could also opt for specialized secondary education.
3. More information about the TIES project and the descriptive report of results is available at: <http://www.tiesproject.eu/>.

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The Role of Language Resources in Labour Market Entry: Comparing Estonia and Ukraine

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The Role of Language Resources in Labour Market Entry: Comparing Estonia and Ukraine

Kristina Lindemann and Irena Kogan

This paper explores how language proficiency influences the dynamics of labour market entry among young Russians and the native populations in two former Soviet Republics—Estonia and Ukraine. We use data from the Estonian TIES survey and the Youth Transition Survey in Ukraine to compare the speed of finding any first job with that of entry to the first higher-status employment requiring good communication skills, thus revealing the role of language proficiency in the job-entry process. The results from event-history analyses show that proficiency in the official Estonian language plays a pivotal role for labour market entry in Estonia, particularly for higher-status employment. In Ukraine, on the other hand, monolingual Russian-speaking youth do not experience any difficulties in finding high-status first employment, even though the official language of the country is Ukrainian. We do not find any positive effect of bilingualism in either of these countries.

Keywords: Language Proficiency; Ethnic Minority; Eastern Europe; School-To-Work Transition; Event-History Analysis

Introduction

Whereas the general dynamics of school-to-work transition and inequalities in educational attainment represent a vivid area of research both in Western (Kerckhoff 2001; Müller and Gangl 2003; Müller and Shavit 1998) and Eastern European countries (Kogan and Unt 2008; Kogan *et al.* 2011; Saar 2005; Saar *et al.* 2008), much

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less attention has been devoted to the issue of the labour market integration of ethnic minority youth. Existing studies which focus on the fate of second-generation immigrants in European countries (Kalter and Kogan 2006; Nielsen *et al.* 2003; Tasiran and Tezic 2007) point to the low level of educational attainment, lack of knowledge of the host-country's language and less-favourable social networks as the main reasons for the difficulties which immigrant youths experience upon entry to working life. Further factors on the demand side of the labour market are regional differences in the distribution of job opportunities, labour market segmentation and discrimination.

Notwithstanding the existing research, the issue of language competence in labour market entry has received little attention thus far. Even less is known about the role of language proficiency in the labour market integration of ethnic minorities in Eastern Europe. The current study aims to bridge this lack of research by exploring the school-to-work transition of young people of Russian origin in the two former Soviet Republics of Estonia and Ukraine. These countries shared a quite similar organisation of their respective educational systems and labour markets in the past, even though societal developments in Ukraine and Estonia have diverged after independence in 1991. However, in both countries, the protection and support of the language of the majority became a significant political aim in the course of the transformation process, which brought about changes in these countries' language environments. Despite the re-establishment of the official languages of both countries in 1989 (since then Ukrainian is the sole official language in Ukraine, and Estonian the sole official language in Estonia), the two countries share the reality of large Russian ethnic minorities cultivating usage of their own native tongue. The question we address in this study is whether the significance of language proficiency for young people's labour market entry varies in the two countries, with the different status of Russian *vis-à-vis* the two countries' new official language.

Theoretical Background

We begin with the theoretical background motivating this study. Language is an important part of human capital. As such, it influences individual labour supply and labour market allocation (Esser 2006). Sometimes communication is an integral part of an occupation, hence language might have a direct effect on productivity. On the other hand, the effect of language upon labour market success can be reinforced through its interaction with other determinants of productivity—e.g. education, training or labour-force experience.

According to Esser (2006), four factors mediate the effect of language proficiency for labour market success. The first is a general communicative value or the communicational potential of a language (Q-Value) in the global language hierarchy (de Swaan 2001). The Q-value can be calculated for any language on the basis of two parameters—its prevalence and its centrality—thus encompassing the proportion of

speakers who consider any specific language to be a mother tongue and of multilingual speakers using the respective language in their communication. Competence in languages which represent a *lingua franca* (e.g. English) would inevitably increase individual productivity in comparison to competence in more-regional languages, irrespective of what the official language in any given host society is or in which area people plan to use the language. Chiswick and Repetto (2001), for example, find a positive effect of English-language knowledge on the labour market success of immigrants in Israel.

The second factor is the communicative relevance of the job of a potential employee (see Berman *et al.* 2000; Gonzalez 2004). In the case of manual employment, particular communicative skills may not be needed at all, so the effect of language skills on, for example, income, would be less pronounced than in the case of activity demanding communicative skills—e.g. a consultancy or a position in the media. Overall, for some occupations the productive value of language is clearly higher than for others and therefore we observe differential returns on language skills in several areas of economic activity.

Thirdly, the significant determinant of the productivity of a language is whether it is used in a written or an oral form. For some occupations, proficiency in written language (reading and writing) is a necessary precondition for acquiring a job. Chiswick and Repetto (2001) indeed find a considerable increase in earnings for immigrants who are highly proficient in written Hebrew in Israel as opposed to those who claimed to be competent in speaking and understanding only. Similar results are reported by Rivera-Batiz (1990) and Chiswick and Miller (1999) for the USA, and by Dustmann for Germany (1994).

Finally the cultural and institutional fit of a non-official or foreign language in a particular societal context is an important factor. Esser (2006) illustrates this issue by discussing the lower possibilities of immigrants who are highly competent in Finnish of finding bank consultancy work in Germany, where clients expect to communicate in German.

Overall, according to Esser (2006), what matters for labour market success is, first and foremost, proficiency in the official language of a country, followed by skill in the language with a high Q-value which is prevalent in the region, all other things—employees' human capital characteristics as well as the economic activities they are engaged in—being equal. In the current paper, we argue that the effect of language proficiency for labour market success strongly depends on the relative status of a titular *vis-à-vis* a regional language with a high Q-value, so that the order of the influence (an official language followed by a regional language) might eventually be reversed under certain conditions. We illustrate our claim by comparing returns on proficiency in the official language versus the Russian language in the two post-Soviet countries of Ukraine and Estonia. The next section describes the two contexts as they relate to the cultural fit and the status of Russian and the local languages, in which the two countries show crucial differences.

Russians and the Russian Language in the Post-Soviet Space*The Case of Ukraine*

Due to immigration flows which started in medieval times and increased from the late eighteenth century onwards, Russians—by the early twentieth century—were the largest ethnic group in the majority of cities in Southern and Eastern Ukraine and in Kiev. Ethnic Ukrainians in these regions, for the most part, soon adopted the Russian language. Since the mid-nineteenth century, use of the Ukrainian language was actively suppressed in those parts of the country under the control of the Russian empire, whereas Ukrainians belonging to the Austro-Hungarian Empire were free to practice their language. Under the Soviet regime, the Russian language was imposed by force; people were attracted to its use due to the privileges associated with it (Bilaniuk 2003). Not only was it politically expedient to know and use Russian (except for peasants), but the Russian language was a prerequisite for access to a good education and decent jobs. Ukrainian predominated in rural areas but, even there, all students had to study Russian—which tended to be highly regarded—in school. The Ukrainian language, on the other hand, was often frowned upon or quietly discouraged. For many people, Ukrainian has still retained its connotations of provincialism and a rural mindset, whereas Russian is associated with urbanity, progress, high culture, science, technology and media (Bilaniuk and Melnyk 2008; Pavlenko 2008).

According to census data, the proportion of Russians in Ukraine was 9.2 per cent in 1922, and had increased to 22.1 per cent by 1989 (the last Soviet census). As many as 33.2 per cent of Ukrainians considered themselves to be native Russian speakers (Janmaat 1999; Pavlenko 2008). According to a 2004 public opinion poll by the Kiev International Sociology Institute, the number of people speaking Russian at home considerably exceeded this figure and constituted as much as 46 per cent of the country's population. In fact, about 72 per cent of ethnic Ukrainians consider themselves fluent in the Russian language (Pavlenko 2008). The high level of russification among Ukrainians—in particular those living in urban centres—sometimes accompanied by a low level of competence in the Ukrainian language, complicates the shift towards state-language use in the country.

Although Ukrainian is a state language, in practice its use is still somewhat limited more than a decade after independence and it has not shed its associations with a lack of culture and with the peasantry (Bilaniuk and Melnyk 2008). The status of the Russian language has remained stable despite political changes and is still used by many officials. People in positions of power often speak Ukrainian poorly and use heavily russified Ukrainian or non-standard Ukrainian dialects (such as a mixture of Ukrainian and Russian, called *surzhyk*). Bilaniuk's (2003) study shows that, although the status of Ukrainian has risen, Russian and English have much more established prestige and provide clearer opportunities for advancement.

Ukraine is an extremely interesting case in that the Ukrainian and Russian languages are closely related (Janmaat 1999). In their respective lexicons, the two

languages differ by just 38 per cent, whereas 44 per cent of the lexicon of these two languages is identical. According to Bilaniuk and Melnyk (2008), ethnic Ukrainians are nearly three times more likely than ethnic Russians to practice bilingualism at home. Russians and people stating that Russian is their native tongue are more likely to be monolingual than Ukrainians or people who speak Ukrainian as their first language.

Since the country's independence, Ukrainian functions as the language of instruction in all types of education. Nevertheless regional differences are apparent. In Crimea, only about 5 per cent of elementary and secondary schools use Ukrainian as the language of instruction (Bilaniuk and Melnyk 2008) and higher education is offered in Russian (Pavlenko 2008). In the Donbass region, only about 30 per cent, and in other south-eastern parts of the country about 65–87 per cent of secondary schools teach in Ukrainian. Even if Ukrainian is the language of instruction in most urban schools in central and eastern Ukraine, Russian is dominant outside formal classroom interactions (Bilaniuk and Melnyk 2008).

The Case of Estonia

Unlike in Ukraine, the majority of ethnic Russians first arrived in Estonia after World War Two. Many immigrants settled in towns in north-eastern Estonia, Tallinn and its nearby areas. As a result, the share of ethnic Russians increased from 8 per cent in 1934 to 30 per cent in 1989 (Statistics Estonia 2010). The community of immigrants remained separated from Estonians and had marginal contact with the Estonian language. Some residential areas, institutions, industries and education and entertainment facilities functioned exclusively in Russian or Estonian. Russian replaced Estonian in areas such as banking, statistics, the police and the army, energy production and transportation (Rannut 2008). At a certain level of societal hierarchy, speaking Russian was unavoidable (Hallik 2002).

According to the 1989 population census, only about 15 per cent of Russians considered themselves fluent in Estonian (Pavlenko 2008), as knowledge of Estonian was not necessary in society. However, the situation changed after Estonia regained its independence and a mandatory level of language proficiency for public- and private-sector jobs was set. In addition, postwar immigrants and their descendants needed to pass an Estonian language test to acquire citizenship. Since then, Estonian language proficiency among ethnic minorities has increased. A later census showed that, by 2000, about 40 per cent of Russians were able to speak Estonian (Hallik 2002).

It is more complicated to evaluate Russian language proficiency among ethnic Estonians. In contrast to the Ukrainian situation, where the vast majority of Ukrainians were fluent in Russian in 1989, only about 34.6 per cent of ethnic Estonians considered themselves fluent Russian speakers (Pavlenko 2008). This level is surprisingly low because Russian-language study starts in the first year at school. Therefore, claiming a low level of language proficiency might reflect an opposition to russification policies (Misiunas and Taagepera 1993). On the other hand, the 2000

census indicates that about 60 per cent of Estonians speak Russian as a foreign language. Despite societal changes, language loyalty is strong among both Estonians and Russians; almost all speak their respective languages (Rannut 2008).

However, the spread of bilingualism has changed among younger cohorts. According to the Estonian Labour Force Survey 2009, about 6 per cent of Russian youth aged 18–35 speak Estonian at home and 59 per cent are able to speak Estonian as a foreign language. At the same time, about 44 per cent of Estonian youth speak Russian as a foreign language, and 4 per cent speak it at home.

Since the Soviet period, the language of instruction in public primary and secondary schools has been either Estonian or Russian although, due to recent reforms, an increasing number of subjects are taught in Estonian in Russian-language schools. According to the Estonian Ministry of Education and Science (2008), the number of students in Russian-language schools has declined significantly in the last few decades—from 37 per cent in 1991 to 20 per cent in 2006—due to a general decrease in the number of Russian children and a growing share of Russian-speaking students in Estonian-language schools. Although Estonian is taught in all Russian-language schools, many Russians find that the quality of teaching is insufficient (Saar 2008). The lack of Estonian language skills limits access to public (or state) higher education, where the language of study is mainly Estonian. However, it is possible to study in Russian in private universities.

Research Hypotheses

Focusing on the role of a single language (Russian) for labour market success in two settings—Estonia and Ukraine—we keep the general communicative value of the Russian language constant. In order to control for the communicative relevance of the employer's task and predominance of the language forms used in the workplace, we concentrate on estimating the language effects for entry to a specific type of employment in both countries, i.e. that requiring a high level of official-language proficiency in both oral and written form (for an exact definition, see the methodology section below). By defining higher-status employment in such a way, we exclude the possibility of ethnic minority youths entering ethnic enclaves instead of the mainstream labour market.

One important factor that varies between the two countries is the cultural fit and the societal status of the Russian language. The Russian language in Ukraine is linguistically close to the official Ukrainian language, and is more acceptable at all societal levels; its status remains quite high despite more than a decade of attempts to foster the usage of Ukrainian. In Estonia, on the contrary, Estonian and Russian are linguistically distant, and the Russian language enjoys no particular privileges in the Estonian mainstream labour market. Proficiency in Estonian is a precondition for high-level jobs, so that brilliance in the Russian language can hardly be expected to compensate. Hence:

(H1) we expect that, in terms of access to highly qualified employment, Russian language proficiency should be more highly rewarded in Ukraine than in Estonia.

Another important issue to be explored here is that of bilingualism. As shown in the previous section, a number of people in both Estonia and Ukraine are bilingual—competent both in Russian and in the language of their respective country. This fact allows us to explore the role of bilingualism for labour market entry in the two countries, taking into account the differences in status of the Russian language, and the varying number of potential Russian-language speakers—both regarding their supply and their demand (Carliner 1981). Most studies about the effect of bilingualism among immigrants reviewed in Esser (2006) show no significant labour market advantage apart from cases in which the second language possesses extraordinary regional or global significance. Saiz and Zoido (2002), on the other hand, report a positive effect of bilingualism on labour market success among US college graduates. Pendakur and Pendakur (2002) also find higher returns on bilingualism in Canada, a country with a pronounced dual-language policy, but only in Montreal and Toronto, not in Vancouver.

Since the Russian language clearly possesses a higher status in Ukraine than in Estonia, and due to the larger number of potential speakers of this language, then:

(H2) if any effect of bilingualism is to be found at all, we expect it to be stronger in Ukraine than in Estonia.

Data, Variables and Methodology

For the Estonian analysis, we use data from the Estonian TIES survey, part of the international research project ‘The Integration of the European Second Generation’.¹ The fieldwork was carried out between January 2007 and March 2008. The aim was to interview Estonians aged 18–35 years old and second-generation Russians living in Tallinn and in the Kohtla-Järve region. The population registry was used for drawing up the random selection sample which, in total, included 500 Estonians and 500 second-generation Russians. Face-to-face interviews were conducted either in Estonian or in Russian. Based on this survey, we created a new subsample that included respondents who left full-time education during the years 1997–2007. The final Estonian sample size is 450 respondents.

For the Ukrainian analysis, we use data from the ‘Youth Transition Survey in Ukraine’, carried out by the Kiev International Institute of Sociology and funded by the European Training Foundation. The sample developed for the survey is representative for the Ukrainian population aged 15–34 years who left continuous education between 2001 and 2006. All respondents were interviewed face-to-face in the period from March to May 2007. The survey is random at each step of its selection. School-leavers are defined as persons who left education or interrupted it for the first time for more than a year. Educational interruptions caused by maternity leave, taking a gap/sabbatical period, serious illness, awaiting a certificate giving

access to education at a higher level, or military service were not counted. The sample size for Ukraine is 1,827 respondents.

We use a time-related perspective focusing on the question of how much time it takes to enter a first significant job (a job of at least 20 hours per week lasting no less than 6 months). The aim of our analysis is to examine the speed of finding a significant job and compare it to entry to a first significant higher-status position requiring advanced levels of both oral and written language proficiency. In defining such jobs, we focused on the economic activities of financial intermediation, real estate, renting and business activities, public administration, defence, compulsory social security, education, health, social work and other community, social and personal services (codes J, K, L, M, N and O in the NACE classification). In these economic branches, we selected higher-status occupational positions for which a higher level of language proficiency is demanded, defined by the ISCO88 scale as codes 1–4 (legislators, senior officials and managers, professionals, technicians, associate professionals and clerks).²

Data for Ukraine enable us to calculate job-search duration based on the end date of a person's education and the start date of their first significant job. In the Estonian questionnaire, respondents were asked how many months it took them after finishing full-time education to find their significant job. Where we had missing values, we calculated search duration by setting the month of leaving education at June—the usual end of the school year in Estonia. First significant jobs that started before the end of a person's full-time studies are coded as immediate transitions (with a search duration of 0 months) in both countries. In our analysis of entry to higher-status jobs, we control for entering employment prior to leaving education.

We divide respondents into groups according to self-identified ethnicity and language usage. In Estonia, respondents were directly asked about their ethnicity, whereas Estonian and Russian language abilities were self-evaluated by our respondents. We coded Russians who estimated their Estonian communication skills to be excellent, very good or good as 'Russians, bilingual'. Russians with lower Estonian language ability belong to the category 'Russians, monolingual'. Estonians with at least good Russian communication skills are coded as 'Estonians, bilingual'; others as 'Estonians, monolingual'.

The measurement of ethnicity is based on the concept of identity in the Ukrainian questionnaire. Respondents were asked 'Do you identify yourself as...?', with Ukrainian, Russian and several other ethnic groups as options. We included only Russians and Ukrainians. Unlike in Estonia, here our measurement is based on language usage rather than on self-assessed skills. At the beginning of the interview, respondents were asked whether it is more convenient for them to speak Ukrainian or Russian. In addition, after they completed the questionnaire, the interviewer marked whether the interview took place in Ukrainian, Russian or a combination of the two. Ukrainians who preferred to speak Ukrainian and also answered the questions in Ukrainian were coded, as a group, 'Ukrainians, monolingual Ukrainian'. Ukrainians who preferred to speak Russian and who answered the questions in Russian we

categorised, as a group, 'Ukrainians, monolingual Russian'. There were also Ukrainians who had no language preference or who responded in the interview in another language to the one they initially said they preferred. Some people also used a combination of two languages. We coded these respondents under the category 'Ukrainians, bilingual'. Finally, the majority of Russians preferred to speak their own language (with only seven exceptions), forming a group which we named 'Russians, monolingual'.

Differences in the above definitions should caution interpretation of our results, so that we do not underestimate the degree of bilingualism in Ukraine or overestimate it for the Estonian sample. Furthermore, in both surveys, language skills were captured at the time of interview. Although we expect language skills to be stable for this age group, we still have to take into account that some respondents might have had somewhat different language abilities at the time of leaving education or at the time of job entry.³

In addition, we included variables describing gender, educational level of respondent, parental highest occupational group and region. For Ukraine, we also differentiate between urban and rural residence, whereas the Estonian survey was conducted only in cities. For the Estonian data, parental leave and military service during the period of labour market entry are taken into account in our calculations.

We apply an event-history perspective to analyse the process of transition from school to the first significant job in any employment field and in higher-status activities in the service sector. We focus on the time that elapsed before such employment was found. We do not define this period as a time of active job search because individuals could have been inactive or holding down casual jobs during this period.

Individuals who did not find a first significant job by the time of our interview are treated as right-censored. In such cases, the search duration is defined as months between leaving education and date of interview. In Estonia, the month of leaving education is set to June for these individuals. In the second analysis, persons who found a first significant job—albeit not in higher-status activities in the service sector—are also treated as right-censored. Therefore, the search duration for them equals a number of months between leaving education and entering the other type of first significant job.

We run piecewise constant exponential duration models to estimate the impact of independent variables on search duration. This method allows flexibility in modelling the baseline hazard as the transition rates might vary between defined time periods. The duration of the first two time periods in our analysis is set to six months and the third period is set to 12 months.

Results

Descriptive Overview

An overview of the composition of ethnic-linguistic groups presented in Table 1 reveals that, in Estonia, monolingual Estonians and bilingual Russians have the most

Table 1. Descriptive overview (%)

	Estonia						Ukraine				
	Estonians			Russians			Ukrainians monolingual		Ukrainians bilingual		Russians monolingual
	monolingual	bilingual	total	monolingual	bilingual	total	Ukrainian	Russian	Ukrainian	Russian	total
Per cent out of total target group (row%)	19	35	26	20	20	36	14	41	9		
<i>Level of education</i> (column%)											
Basic or less/elementary or less	20	16	6	30	30	11	11	11	11		
General secondary	20	27	30	13	13	21	26	19	26		
Vocational secondary	18	20	13	30	30	16	19	17	18		
Professional secondary	7	14	18	20	20	9	15	17	14		
Lower tertiary (BA)	—	—	—	—	—	19	7	9	11		
Higher tertiary	—	—	—	—	—	23	21	27	21		
Tertiary	35	22	33	7	7	42	28	36	32		
<i>Parental highest occupational group</i> (column%)											
Manager/professional	36	32	34	20	20	27	29	29	34		
Technician	15	12	21	24	24	11	9	15	6		
Low white-collar	26	25	16	11	11	18	13	19	21		
Skilled blue-collar	14	15	18	20	20	15	16	15	11		
Semi-/unskilled blue-collar	2	8	7	17	17	17	17	12	15		
Not available	6	8	5	8	8	13	16	10	13		
<i>Place of residence</i> (column%)											
Tallinn/Kiev and Kiev region	85	40	56	29	29	11	7	14	1		
Kohtla-Järve/East Ukraine	15	60	44	71	71	1	44	81	92		
West Ukraine	—	—	—	—	—	89	48	6	7		
Total number	85	157	119	89	89	649	255	753	170		

Source: Estonian TIES survey; Youth Transition Survey in Ukraine (2007); own calculations.

often attained higher education. However, these two groups are over-represented in Tallinn, where opportunities for attaining higher education are better. In contrast, monolingual Russians have often acquired only basic or some type of vocational secondary education at the time of getting their first significant job. This group is also characterised by a somewhat less advantageous parental background. Monolingual Russians and bilingual Estonians are the most often residents of Kohtla-Järve—a region characterised by a high share of the Russian-speaking population.

In Ukraine, the differences in the educational attainment of ethnic-linguistic groups are not as pronounced as in Estonia. However, a large percentage of Ukrainians who are monolingual Ukrainian-speakers have attained tertiary education, but often this is only at a lower level. Ukrainians who are monolingual Russian-speakers have usually completed higher-level tertiary education. There are not many differences in parental background across ethno-linguistic groups in Ukraine. In addition, the residential segregation of ethnic-linguistic groups is evident in Ukraine. Ukrainians who prefer to speak their native language live mostly in the western part of the country, while Ukrainians who are monolingual Russian-speakers and Russians often live in Eastern Ukraine. However, bilingual Ukrainians are quite a heterogeneous group in terms of place of residence.

Descriptive Analysis of Job Entry in Estonia and Ukraine

The speed of entry into any first significant job and into higher-status employment with high requirements in language proficiency is presented in Figure 1 for both Estonia and Ukraine. In Estonia, this speed of entry differs less across ethnic-linguistic groups than the speed of transition to higher-status first significant jobs. Monolingual Estonians are the quickest labour market entrants; Figure 1 also shows that they have the steepest transition curve into higher-status first employment, which is not surprising if we take into account their higher educational level. The speed of transition to higher-status first significant jobs is more moderate for bilingual Estonians. Finding any first employment takes somewhat more time for Russians than for Estonians. However, bilingual Russians are relatively successful, especially in the first months after leaving school. In contrast, monolingual Russians have almost no opportunities to enter high-status stable jobs. The large disparity between monolingual Russians and other groups highlights the importance of Estonian language proficiency for obtaining high-status employment.

In Ukraine, the speed of finding any first stable employment varies considerably for ethnic-linguistic groups (see Figure 1). However, entry into the first significant job with high language-proficiency requirements is similar for all groups. The quickest labour market entrants are Ukrainians who prefer to speak Russian. This group is also more successful in finding a higher-status first significant job, as many of them have higher levels of tertiary education. Contrary to Estonia, monolingual Russians in Ukraine are characterised by quite successful labour market entry compared to other groups. Finding a higher-status first stable job also seems to be

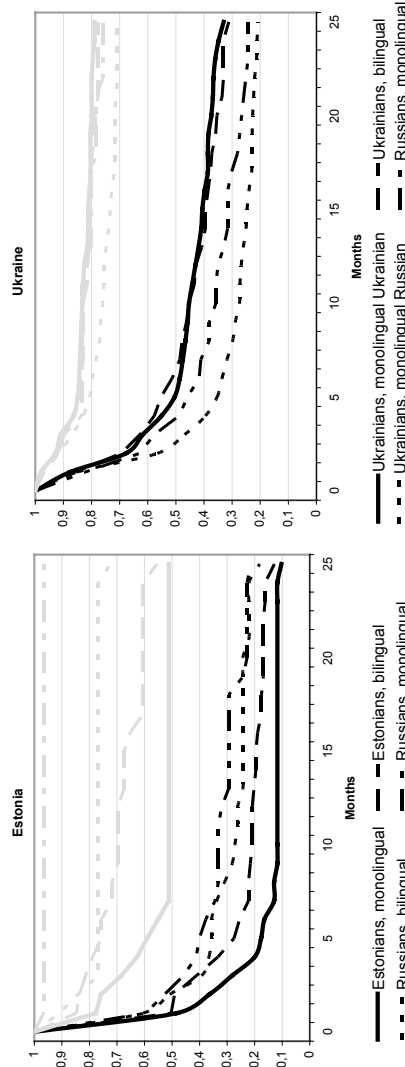


Figure 1. The speed of entry into any job and into a higher-status first significant job after finishing studies by different ethnic-linguistic groups in Estonia and Ukraine, Kaplan-Meier survival estimates.

Source: Estonian TIES survey; Youth Transition Survey in Ukraine (2007); own calculations.

Note: Black lines indicate entry to any employment, grey lines indicate entry to higher-status first significant jobs.

less complicated for this group. Monolingual and bilingual Ukrainians have a rather slow transition into the labour market; on the other hand, when it comes to higher-status stable employment, they are on a par with monolingual Russians. Therefore it seems that youths who prefer to speak Russian do not experience any difficulties in finding high-quality stable employment compared to youths who prefer Ukrainian.

Language Proficiency and Job Entry: Results of the Multivariate Analysis

Piecewise constant exponential regressions, the results of which are discussed below, examine whether the different labour market entry patterns of ethnic-linguistic groups are related to their dissimilar educational levels, place of residence and parental background. In addition, gender, the period of leaving school, place of socialisation (in Ukraine) and parental leave (in Estonia) are controlled for. Table 2 presents the results of our multivariate analysis for Estonia and Ukraine, again contrasting the speed of entry into any stable first job with that into higher-status first significant employment. In the latter model, a dummy variable for entering employment prior to leaving education is also included.

In Estonia, the speed of finding any first significant job does not differ significantly across ethnic-linguistic groups, but there are obvious differences between these groups in terms of entry into higher-status first significant jobs. Although monolingual Russians seem to be somewhat slower in finding any first employment, as survival curves in Figure 1 suggest, the difference is not statistically significant once we control for other variables. One reason might be the lower educational level of monolingual Russians. In addition, they might look for a different kind of employment, particularly in Russian-language enterprises (additional analyses show that 76 per cent of monolingual Russians found their first significant job in enterprises where most of the other employees were Russian-speakers). However, the extensive disadvantage for this group becomes evident in the model with higher-status jobs. Compared to monolingual Estonians, monolingual Russians have significantly fewer chances of finding high-quality first significant jobs that require communicative skills. Hence, we can conclude that Estonian language proficiency is an important precondition for entry into higher-status employment.

Bilingual Estonians and bilingual Russians do not perform better than monolingual Estonians in finding any significant job. Further analysis indicates that bilingual Russians are competing with ethnic Estonians for quite similar jobs, as bilingual Russians are counting much less on Russian-language enterprises than monolingual Russians (37 per cent of bilingual Russians work in such enterprises). However, our model with the higher-status job indicates that bilingual Estonians and bilingual Russians are no more successful than monolingual Estonians in finding high-quality first jobs that require communicative skills. The lack of a positive effect of bilingualism leads to the conclusion that Russian language skills do not have any additional value apart from and beyond Estonian language skills when it comes to the speed of finding higher-status first employment.

Table 2. Speed of entry into any first significant job and into higher-status first significant job in Estonia and Ukraine: selected coefficients from the piecewise constant exponential duration model (standard errors in parentheses)

	Estonia				Ukraine			
	Any job		Higher-status job		Any job		Higher-status job	
<i>Ethnic and linguistic group (ref. Estonians/Ukrainians, monolingual Estonian/Ukrainian)</i>								
Estonians/Ukrainians, bilingual	0.02	(0.15)	-0.07	(0.29)	0.11	(0.10)	0.19	(0.20)
Ukrainians, monolingual Russian					0.27***	(0.10)	0.25	(0.20)
Russians, bilingual	-0.23	(0.17)	-0.45	(0.32)				
Russians, monolingual Russian	-0.20	(0.19)	-1.89***	(0.66)	0.22*	(0.12)	0.24	(0.27)
<i>L Level of education (ref. general secondary)</i>								
Basic education or less	-0.13	(0.20)	0.81	(0.49)	-0.15	(0.11)	-0.32	(0.44)
Vocational secondary	0.15	(0.17)	0.67	(0.47)	0.19**	(0.09)	-0.13	(0.38)
Professional secondary	0.18	(0.19)	0.80*	(0.47)	0.57***	(0.10)	1.52***	(0.28)
Lower tertiary (BA)					0.62***	(0.10)	1.74***	(0.27)
Higher tertiary					0.94***	(0.09)	2.42***	(0.25)
Tertiary	0.36**	(0.16)	1.92***	(0.37)				
<i>Parental highest occupational group (ref. semi-/unskilled blue-collar)</i>								
Manager/professional	0.45**	(0.23)	1.23**	(0.56)	-0.07	(0.09)	0.45**	(0.22)
Technician	0.62**	(0.24)	0.97	(0.60)	0.03	(0.11)	0.26	(0.26)
Low white-collar	0.23	(0.24)	0.92	(0.58)	-0.06	(0.10)	-0.06	(0.26)
Skilled blue-collar	0.56**	(0.24)	0.98	(0.62)	-0.07	(0.10)	0.25	(0.26)
Not available	0.25	(0.30)	0.04	(0.91)	-0.32***	(0.11)	-0.04	(0.29)
<i>Place of residence</i>								
Capital (Tallinn/Kiev& Kiev region)	0.02	(0.13)	-0.47	(0.26)	0.24***	(0.09)	0.11	(0.20)
ref. Kohtla-Järve	0		0					
West Ukraine					-0.03	(0.09)	0.11	(0.19)
ref. East Ukraine					0		0	

Source: Youth Transition Survey in Ukraine (2007); Estonian TIES survey; own calculations.

Note: N = 450 (Estonia) and 1,827 (Ukraine); *p < 0.10, **p < 0.05, ***p < 0.01. The models for both countries additionally control for gender, time since leaving education (0–6; 7–12; 13–24; more than 24 months), school leaving cohorts (1997–2000; 2001–03 and 2004–07 for Estonia; and 2001–03 and 2004–06 for Ukraine), incidence of parental leave for Estonia and rural vs urban socialisation for Ukraine. In the models for higher-status job we also controlled for jobs that started prior to leaving education. These results are not shown but are available upon request from the authors.

Piecewise constant exponential duration models for Ukraine indicate that the speed of finding the first stable employment differs for ethnic-linguistic groups, while there are no significant differences in case of entry to higher-status first significant jobs. Ukrainians who speak Russian obtain their first jobs significantly quicker than other Ukrainians who prefer speaking Ukrainian. However, despite their smooth entry into the labour market, the former are not significantly quicker in obtaining

higher-status positions. Our model pertaining to the entry to high-status jobs shows that the advantage of Russian-speaking Ukrainians disappears in the case of entry into higher-status first employment. Another Russian-speaking group—ethnic Russians—are also quite successful labour market entrants but only when it comes to entry to any jobs. The quick labour market entry of Russian-speaking groups might be explained by the fact that Ukrainian language skills are not needed for every kind of job. On the contrary, the fact that Russian-speakers are having no difficulties in getting higher-status jobs is somewhat surprising, especially because Ukrainian language skills are at least formally required for higher-status jobs in the public sector. Therefore, it is likely that there are still niches in the higher-status job market for Russian-speakers in Ukraine.

In finding a first stable employment and higher-status first employment, bilingual Ukrainians do not perform better than their monolingual counterparts. Such a result is more or less expected, as bilingualism is not necessary for every kind of job. In addition, bilingual Ukrainians are not significantly more successful than monolingual Russian-speakers.

Discussion and Conclusions

This paper's main aim was to explain the role of language competency for labour market entry among youths in Estonia and Ukraine, countries with different minority-language with a high Q-value (Russian) status *vis-à-vis* the titular languages and their varying cultural fit. Our findings indicate that proficiency in Russian and the titular languages has a varying effect on the speed of finding a first significant job in these two post-Soviet countries. Overall, we can conclude that the effects of language knowledge in Estonia resemble the situation observed in other immigrant-receiving societies, for which the high importance of speaking the official language for labour market success is incremental. The situation is different in Ukraine, in which Ukrainian language competence seems not to be at all decisive in the labour market success of Russian-speakers.

Our findings correspond to our predictions, which are derived from the apparent differences between Estonia and Ukraine in the immigration history of the Russian minority population and Russian language prevalence in these countries. In Estonia, young Russians are predominantly the descendants of immigrants who settled in Estonia during the Soviet period (1945–91), even though a small Russian minority was living in Estonia before World War Two. In Ukraine at the beginning of the twentieth century, Russians were the largest ethnic group in Kiev and in many cities in the southern and eastern parts of the country, and the Russian minority proportion continued to grow during the Soviet period (1922–91). Unsurprisingly, one can see that the cultural fit, i.e. the practical usage of a language, and the status of the Russian language *vis-à-vis* the titular languages of the two countries varies. The Russian language—which is linguistically close to the official Ukrainian language—has more or less retained its high societal value in Ukraine. On the other hand, in

Estonia, the importance of the Russian language declined after the country regained its independence, and the position of the linguistically distant Estonian language has strengthened as it determines access to public higher education and to higher-level labour market positions.

Esser (2006) asserts that the communicative relevance of a language for a particular job should be taken into account when analysing labour market success. Due to the fact that language skills are particularly relevant for some jobs, we have compared entry to any jobs with that to higher-status jobs where a high level of language proficiency is a requirement. Our results indicate that there is no additional value in knowing Russian for successful labour market entry in Estonia, where solely Estonian language proficiency determines youth opportunities for finding higher-status employment. In the light of the close monitoring of the state's strict language requirements and of the growing number of Estonian-language speakers among young Russians, it is obvious that monolingual Russians have almost no possibility of finding a higher-status position. They instead enter into low-ranking employment in Russian-language enterprises. Most probably a majority of monolingual Russians studied in Russian-language schools and have few or no contacts with more successful Estonian youths. Although the Estonian sample is restricted to only two cities, these results are in line with findings from the nationally representative Estonian Labour Force Survey, which point to severe labour market difficulties for young non-Estonians with poor Estonian-language skills in terms of employment and of the obtention of higher-level occupational positions (Lindemann and Saar 2009).

In accordance with our first hypothesis, our results show that Russian language proficiency is more highly rewarded at labour market entry in Ukraine than in Estonia. First, our results indicate that Russian-speakers are the most successful groups in the Ukrainian labour market when it comes to entry to any employment. This can be explained by the fact that plenty of labour market segments in Ukraine are oriented towards Russia or dominated by Russian-language users. With regard to higher-status employment necessitating communicative skills, the advantage of Russian- over Ukrainian-speakers, however, disappears. Nevertheless, unlike in Estonia, Russian-speakers in Ukraine experience no significant penalties compared to monolingual Ukrainian-speakers. This also accords with findings by Constant *et al.* (2006) showing that Russian-speaking groups are the most successful in the Ukrainian labour market in terms of earnings. Apart from the historical variation in the cultural fit of the Russian language in Ukraine and Estonia, another reason behind these cross-national differences might be a slower change of institutions in Ukraine and stronger economic and political connections with Russia—which probably contribute to the persistently high status of the Russian language. Even though Bilaniuk and Melnyk (2008) argue that the language situation in Ukraine is changing due to the improved quality of Ukrainian-language instruction and the gradually rising numbers of Ukrainian language-speakers, the situation is likely to persist as long as Ukraine remains politically oriented towards Russia.

Many young people in Ukraine and Estonia are able to speak both Russian and the official language of their respective country. Our analysis shows that bilingualism has only limited importance in entry to higher-status first significant jobs in Ukraine and that monolingual Russian-speakers are also relatively successful labour market entrants. In Estonia, Estonian–Russian bilingualism is not rewarded in terms of quicker entry to higher-status stable employment. A high level of competence in other languages, especially English, might compensate for the lack of Russian language skills among young Estonians, in particular if their higher-status job does not require direct communication with Russian-language speakers.

Therefore, we did not find significant support for our second hypothesis that postulated a stronger effect of bilingualism in Ukraine than in Estonia. One could argue that the measure of bilingualism in the Ukrainian case comprises more language usage than language skills. Hence, there might be some individuals with good Russian skills among those who prefer to speak Ukrainian, and there may also be Ukrainian-proficient youth among self-declared Russian-speakers. On the other hand, this makes our measure of bilingualism rather conservative and it is likely that we would underestimate the effect of bilingualism in Ukraine.

Due to the nature of the survey, we confined ourselves to analysing the role of language skills as self-defined by our respondents. Since these might be biased, particularly if the languages are very close (as in Ukraine), our results should be validated by including more objective measures of language skills—like independent language tests. Unfortunately, such data do not exist for the countries in our study. Furthermore, our analysis focused on communicative language skills. Further studies differentiating between oral and written forms of language would contribute to our understanding of the role of language in labour market entry.

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Notes

- [1] The advantages of the TIES data are their provision of information on a high number of young ethnic Russians and the availability of time-related data concerning labour market entry and educational career, neither of which are present in the nationally representative Estonian Labour Force Survey or other Estonian datasets.
- [2] Alternative definitions of the dependent variable based solely on the respective economic activity or selected higher-status occupation yielded similar results.
- [3] We conducted additional analyses for the current job that a respondent holds. Language effects were quite similar with regard to entry to both first and current employment.

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The Effects of Ethnicity, Language Skills, and Spatial Segregation on Labour Market Entry Success in Estonia

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Abstract

This paper studies jointly the effects of ethnicity and proficiency in host country and minority languages for labour market entry in areas with different ethnic concentrations. The focus is on Estonian ethnic majority and Russian-speaking minorities in three Estonian regions with varying ethnic concentrations. Data from Estonian Labour Force Surveys (2002-2011) is used to compare the duration of unemployment before finding the first job and the status of the first job for post-first generation Russian-speaking minorities and young Estonians of the ethnic majority. The results show that the effects of ethnicity and language proficiency depend on region. Although high proficiency in the Estonian language increases labour market success for ethnic minority youth, a Russian-language environment seems to reduce the negative effect of poor skills in the Estonian language to some extent. Spatial segregation also affects labour market entry for Estonians because knowledge of the Russian language has some value for finding a job in areas with a high concentration of Russian-speaking ethnic minorities. Only in Tallinn, where the size of ethnic communities is almost equal, do the Russian-speaking minorities experience an ethnic disadvantage.

Introduction

The success of labour market entry is a significant indicator for the integration of ethnic minority youth who have grown up in the host country. Research has shown that host country language skills are important for the economic achievements of first generation immigrants (Dustmann 1994; Chiswick and Miller 1995; Esser 2006), but studies that include measures of language skills for the second generation are rare (Heath et al 2008). Previous studies on the labour market integration of the second generation have paid less attention to how the importance of individual resources depends on the local context, particularly ethnic concentration. In some contexts, a minority language might be an important resource while belonging to ethnic minority might also relate to labour market disadvantage (Pendakur and Pendakur 2002; Esser 2006). This paper adds a new perspective to previous research by jointly studying the effects of ethnicity and proficiency in host country and minority languages for labour market success in areas with different ethnic concentrations. Studying these effects jointly explores how the local context mediates the importance of ethnicity and proficiency in minority and host country languages. I focus on the role of language skills and ethnicity for labour market entry in different Estonian regions by comparing young Estonians and post-first generation Russian-speakers¹.

Ethnic concentration may limit opportunities for upward mobility for second-generation immigrants due to their distance from mainstream society (Alba and Nee

1997). In contrast, immigrant children raised in supportive ethnic communities may benefit from close contacts with their co-ethnics (Zhou 1997). Studies about the effect of ethnic concentration on the labour market opportunities for young second-generation immigrants show mixed results. Nielsen *et al* (2003) find that in Denmark, the ethnic concentration of a neighbourhood affects the success of the school-to-work transition for second-generation immigrants. In Sweden, Grönqvist (2006) finds that the extent of ethnic concentration does not affect the earnings of second-generation immigrants but does reduce the probability of being non-employed.

For Eastern Europe, several studies have explored the transition to the labour market (Kogan and Unt 2008; Saar *et al* 2008 etc), but little is known about the importance of language skills and ethnicity in this process. However, language proficiencies as well as education should be particularly important for young labour market entrants as they do not have any significant work experience. In Estonia, Russian is the native language for almost a third of the population and in addition to this, Estonian regions vary significantly in terms of ethnic composition and labour market opportunities. Based on ethnic concentration, I separate three local labour markets²:

- (1) Ida-Viru county in Eastern Estonia where about 80 percent of the population are Russian-speaking ethnic minorities. The county also suffers from poor labour market conditions with the highest unemployment rates in Estonia.
- (2) In the capital Tallinn, and its surrounding area, about 40 percent of the population is Russian-speaking. This area is an important centre of trade, transportation and public administration and the employment rate is above the Estonian average.
- (3) Elsewhere in Estonia the share of Russian-speakers is very low and labour market conditions in most areas are better than in Eastern Estonia.

This study focuses only on these three areas that have contrasting ethnic environments and labour market entry conditions because there are few Russian-speakers living outside the Tallinn area and Eastern Estonia. The remainder of Estonia has a uniformly Estonian-speaking environment.

Some post-first generation Russian-speakers still have problems with proficiency in Estonian. Linguistic divisions in the education system contribute to this situation as it is possible to undertake both primary and secondary education in Russian. The Estonian case is also special because some Estonians can speak the minority language. To explore the role of language and ethnicity in three different regions, I use data from Estonian Labour Force Surveys 2002-2011. First, I analyze the duration of unemployment before finding the first job, and second, I study the quality of the first stable job.

Why might spatial segregation matter?

There are several theoretical explanations as to why ethnicity and language skills matter for labour market success and how these effects are related to spatial segregation. The theory of human capital predicts that labour market success can be explained as the return to investment in education, skills and work-related experience. Previous studies demonstrate that investment in the host country's language skills is important for the labour market integration of ethnic minorities while the value of a minority language depends upon the specific (ethnic and linguistic) characteristics of a region (Esser 2006).

The language skills of minority groups might be related to ethnic concentration. Van Tubergen and Kalmijn (2009) find that ethnic concentration results in a significant negative effect on the host country language proficiency. Knowledge of the host country language might be less important in areas with high ethnic concentration. Chiswick and Miller (2002) show that in the U.S, immigrants who are not fluent in English have relatively greater earning opportunities within their linguistic concentration area. So, minority language skills might be necessary for some jobs, particularly in areas where the concentration of ethnic minorities is high. Pendakur and Pendakur (2002) argue that the economic return to using a minority language rises with the concentration of the minority population, which is consistent with the human capital view of language. In particular, the number of minority language speakers in one's own ethnic group affects labour market success.

This raises the question about the importance of the ethnic capital or resources specific to an ethnic group (e.g. minority language and networks). Investment in such capital is a possible alternative to learning the language of host country. Esser (2007) argues that ethnic capital is clearly less efficient than the capital specific to the receiving country, because its value and use depends on the existence and size of the ethnic community. However, under certain circumstances, the tendency to use the less efficient ethnic capital may become a reasonable option, e.g. by investment in an ethnic business.

On the other hand, growing up in an area with a high ethnic concentration might reduce the opportunities for young people as a result of the social environment. Heath et al (2008) point out that ethnic minorities tend to be geographically concentrated in areas of relatively high social deprivation. Borjas (1995) stresses that ethnic environment or ethnic externalities are important because the labour market outcomes of the second generation depend not only on their parents but also on the average skills and labour market experiences of the ethnic group in the parents' generation. The ethnic neighbourhood is one possible channel through which the ethnic externalities might operate. However, value-orientations and the networks of social support and control in ethnic communities may positively affect how the second generation adapt, even in unfavourable situations (Zhou 1997).

In addition, ethnic segmentation in the labour market and the lack of social networks might reduce the opportunities of the minorities. Second-generation immigrants are connected through social networks to the economic sectors that their parents worked in and, thus, often end up in the same sectors (Kogan 2007). Although social networks change character across immigration generations, as second-generation immigrants usually have more contacts with the natives, the reason for ethnic disadvantage might be exclusion from the networks that are important for economic advancement (Heath and Cheung 2007).

Ethnic minority youth might face discrimination in the labour market. Non-fluency in the host country's language, or even speaking with an accent, may mean that an individual is recognized as a member of an ethnic group and the consequence might be discrimination (Stolzenberg and Tienda 1997). However, a large ethnic community may minimize the effects of labour market discrimination (Pendakur and Pendakur

2002). In next sections, I discuss the possible existence of these tendencies in the Estonian context.

Ethnic segmentation in Estonia

The immigration to Estonia was considerable during Soviet time. The reasons were the industrial development that was taking place and the desire to control the implementation of Soviet policies in state administration and enterprises (Vetik and Helemäe 2011). Many Russian-speaking immigrants settled in Estonia's capital, Tallinn, and in the urban areas in Eastern Estonia. As a consequence, the proportion of Estonians in the population decreased from 97 percent in 1945 to 62 percent in 1989. After Estonia regained its independence in 1991, many Russian-speakers returned to their historic homelands. The Population Census in 2011 showed that Estonians comprised 69% and Russians 25% of the population. Other sizeable ethnic groups were Ukrainians (2 percent) and Byelorussians (1 percent). Ethnic minorities comprised around 80 percent of the population in Eastern Estonia. Despite high out-migration from Eastern Estonia, the ethnic composition in the area has not changed much in a comparison of data from the censuses of 2000 and 2011. At the same time, ethnic minorities made up about 40 percent of the population in Tallinn and its surrounding Harju county. Estonians dominate in other regions of Estonia comprising almost 90 percent of the population (Statistics Estonia 2012).

Russian-speakers migrating to Estonia during Soviet period considered themselves to be members of the majority nation of the Soviet Union who moved merely from one part of the union to another (Pettai and Hallik 2002). As Russian language became dominant in several life spheres Russian-speakers did not have to learn a new language. After 1991, new laws about citizenship and language significantly increased the importance of Estonian in society. There are laws about the mandatory level of language proficiency required for public and some private sector jobs³. Proficiency in Estonian has improved, especially amongst the younger generation of Russian-speakers. The Population Census 2000 indicated that almost 40 percent of Russians-speakers know Estonian as a foreign language, and about 60 percent of Estonians know Russian (Statistics Estonia 2012).

During Soviet period, Russian-speakers had a rather similar level of education to Estonians and they were usually employed in professional or skilled occupations (Pettai and Hallik 2002; Vetik and Helemäe 2011). After 1991, the difficulties, which immigrants often have to face in Western labour markets, became real for many Russian-speakers in Estonia (e.g. lack of host country language skills and useful social networks). Since that time, the unemployment rate has been higher among the ethnic minorities (Statistics Estonia 2012) and minorities with the same level of education as ethnic Estonians are likely to earn less (Leping and Toomet 2008). In addition, the situation in Eastern Estonia was even more complicated because during the Soviet period the economy in this region was mainly targeted towards manufacturing for All-Union needs and not for the local needs and therefore substantial reorganization in the 1990s was necessary (Eamets 1999).

During Soviet period, ethnic minorities were often employed in different enterprises and industries than Estonians. Thus, social networks were divided based on language

(Vöörmann and Helemäe 2003). Estonia's labour market has remained ethnically segmented, with ethnic minorities overrepresented in the industrial sector. Although employment of ethnic minorities in the industrial sector has decreased from 50 percent in 1991 to 40 percent in 2011, this figure is still higher compared to Estonians, about 30 percent in both 1991 and 2011 (Statistics Estonia 2012).

Segmentation also appears in the Estonian educational system. Since the Soviet period, basic and secondary schools were divided into Russian and Estonian schools, based on the language of instruction. The proportion of students enrolling in Russian schools has decreased over the last 20 years (from 37 percent in 1991 to 19 percent in 2010). In Tallinn, 32 percent of students studied in Russian in 2010, while in the Eastern region the number was 72 percent (Statistics Estonia 2012). In recent years, educational reforms aimed at increasing teaching in Estonian have been introduced in Russian schools. Some minority students also prefer Estonian schools. In higher education, the language of study is mainly Estonian in the public educational institutions, but it is possible to study in Russian in private universities. Previous research has shown a growing educational gap between ethnic groups, i.e. the difference between young Russians and young Estonians in terms of education has increased compared to their parents' generation (Lindemann and Saar 2011).

Hypothesis

Knowledge of the host country language should be especially important for successful entry to the labour market, according to the human capital perspective. In addition, proficiency in Estonian is required by law for some higher positions. However, in areas where the ethnic minority concentration is very high, proficiency in Estonian might be necessary for fewer jobs. My first hypothesis (H1) is that proficiency in the host country's language is a decisive factor influencing the duration of unemployment and the quality of the first job in Estonia, but it might be less important in Russian dominated Eastern Estonia

Also from the viewpoint of human capital theory, proficiency in both Estonian and Russian should raise the chances of finding a good job if the minority language is valued in the local labour market. It is not only ethnic minorities that speak Russian, some Estonians are also highly proficient. My second hypothesis (H2) is that the Russian language as human capital has some extra (regional) value for labour market entry in Eastern Estonia and Tallinn where the Russian-speaking communities are large. In other Estonian regions, the effect of knowing Russian is likely to be minor.

Despite higher social deprivation, regions with high ethnic concentrations might offer more advantages for the ethnic minority compared to the majority because minorities could benefit from ethnic networks, support from ethnic communities and the low likelihood of discrimination. My third hypothesis (H3a) is that in Eastern Estonia, Russian-speakers are more successful labour market entrants than young Estonians living in the same region.

The situation might be different in other Estonian regions. Vöörmann and Helemäe (2003) argue that the reason for ethnic segmentation in the Estonian labour market is not enclave economies organized by ethnic communities, but rather it is a consequence of structural conditions. There is some evidence that Russian-speakers in

Russian enterprises are less satisfied with their work and have lower occupational positions than Russian-speakers in mainstream enterprises (Helemäe 2008). In addition, it is likely that the ethnic structure of social networks has not changed across the generations due to the segmented education system. Consequently, young Russian-speakers might have fewer contacts who would provide access to jobs in the mainstream economy and the use of ethnic capital (language and social networks) might be just poorer alternative for getting any job at all. It is probable (H3b) that ethnic differences are emphasized more in the Tallinn area, where the size of the ethnic communities is almost equal, whereas elsewhere in Estonia young Russian-speakers are likely to be more integrated into society due to the small size of their language community. Thus, I hypothesize (H3c) that there is no ethnic disadvantage for the Russian-speaking minority elsewhere in Estonia.

Data and variables

I use data from Estonian Labour Force Surveys (ELFS) 2002-2011. The ELFS samples are representative for the entire population aged between 15 and 74 years. The interviews were conducted in Estonian and Russian. I made two new subsamples of labour market entrants aged from 16-29 years.

(1) *Subsample for unemployment*: I analyze the duration of unemployment before finding the first job. ELFS records the respondent's labour market moves during one year. The start date of unemployment and the start date of finding the first job are recorded. Unemployment is defined as an active job search. Thus, the analysis shows the duration of unemployment, but not the time between leaving education and finding the first stable job. The first job can be any kind of employment, including short-term and casual employment. I include only young people who have left the education system, but they might have still been students at the time of the start of their unemployment. Individuals who have not left the educational system are excluded because an active job search might have a different meaning for this group (e.g. lower risk of social exclusion or better opportunities to improve the educational level and skills). Respondents who entered the first job without a preceding spell of unemployment are included. The size of the subsample is 1680 individuals.

(2) *Subsample for the quality of the first job*: This subsample includes all respondents (including students) who had found their first stable job no more than two years before the survey. Students are included because having a stable job during higher education is quite common and working students often have permanent jobs with high occupational status in Estonia. Excluding working students would mean omitting many of the most successful labour market entrants (Unt 2011). The first stable job is defined as employment that lasted at least six months. I analyze occupational status measured with the ISEI scale (international socio-economic index of occupational status). The evaluation of occupational status in the ISEI scale relates to education and income of occupational groups. In total, subsample includes 3681 respondents.

The main question of the analysis is whether language skills and ethnicity have an effect on the labour market entry of ethnic groups. Thus, I introduce a combined variable of *ethnicity and language skills*. Ethnic identity is self-reported. I define individuals with non-Estonian ethnic identity and who speak Russian at home as the

Russian-speaking minority. Language skills were evaluated by the respondents. From ELFS, the following categories were identified:

- 1) Estonians: (1) able to write and speak in Russian or who have Russian as one of their home languages (2) only able to speak Russian or lower skills
- 2) Members of the Russian-speaking minority: (1) able to write and speak in Estonian or who have Estonian as one of their home languages; (2) only able to speak Estonian or lower skills

The analysis only includes respondents who were born in Estonia. All of the respondents in the category “Estonians” are Estonian citizens. Some young Russian-speakers are not Estonian citizens⁴. About 78 percent of young Russian-speakers with good Estonian skills have Estonian citizenship, while about 50 percent of those without Estonian proficiency are citizens.

Education is measured as the highest educational level at the time of interview. For job quality analysis, I also control for the *student status* during the first significant employment. I separate five educational groups: (1) basic or less (primary and lower secondary), (2) general secondary, (3) vocational secondary (4) specialized secondary and (5) higher.

The variable *region* distinguishes whether a respondent lives (1) in Tallinn or its surrounding Harju county, (2) in Eastern Estonia, or (3) elsewhere in Estonia. In addition, the analysis takes into account whether the respondent lives in an *urban or rural area*. This distinction is important because labour market conditions are generally better in urban areas. Population Census 2000 shows that more than 90 percent of ethnic minorities lives in urban areas while the same figure among Estonians is 56 percent (Statistics Estonia 2012). I also include the period that refers to the year of survey for unemployment analysis and to the date of finding employment for job quality analysis. Categories are (1) 2001-2004, (2) 2005-2008 (1st half) and (3) 2008 (2nd half)-2011. Other independent variables are gender and the economic sector of the first job.

Table 1 shows the distribution of ethnic-linguistic groups by education level and region for both subsamples. It appears that those Estonians and Russian-speakers who have good language skills also have the highest education levels compared to other groups. In contrast, ethnic groups with lower language proficiencies have more often undertaken vocational education. Not surprisingly, the education level of individuals is higher in the subsample for unemployment analysis where students are excluded. However, these subsamples are not directly comparable, because the sample for first job quality represents more successful young people who have managed to find their first stable job.

In addition, the lines of territorial segregation are apparent (Table 1). Estonians have better Russian skills in Tallinn and in Eastern Estonia. Russian-speakers who have good language skills are mostly from Tallinn, but also from other parts of Estonia. Minorities with poor Estonian skills tend to live in Eastern Estonia or Tallinn and only a small number of them live elsewhere in the country.

Table 1 about here

Method

The first step of the analysis focuses on unemployment. I apply event-history analysis to research the effect of ethnicity and language proficiency on the duration of unemployment before finding the first job. I use piecewise constant exponential models which assume that transition rates are constant in defined time periods but can change between them (Blossfeld et al 2007). This allows some flexibility in modelling the baseline hazard. Dichotomous variables that refer to 6 month time periods are defined. Since the ELFS contains data about labour market movements during one year, the maximum time used in the analysis is 12 months. The start time of an episode is the start date of unemployment. An event occurs when the respondent finds a first job. Individuals who are still unemployed by the time of the interview or who moved to inactivity are treated as right censored. In such cases, the unemployment duration is defined as the months between the start of unemployment and the date of interview (or start of inactivity). Unemployment duration is set to 0 for those individuals who did not experience any unemployment before finding their first job.

The second step of the analysis focuses on the *quality of the first job*. I use ordinary least squares (OLS) regression to analyze the effect of ethnic-linguistic group on the occupational status of the first stable job. The first stable job might not be the same as a job that is found after movement out of unemployment. For both dependent variables, I test models with interactions (between ethnic-linguistic groups and regions) to see whether the effect of ethnic-linguistic groups differ significantly across regions and separate models are presented for the regions.

Results

The duration of unemployment

First, I focus on the duration of unemployment before getting the first job. Table 2 shows the percentage of young people who have not found their first job. It appears that Russian-speakers with poor Estonian skills are the slowest in moving out of unemployment. More than half of them have not found a job after 3 months of unemployment and over 40 percent of them are still unemployed after 6 months. Differences between other ethnic-linguistic groups are not large, although Estonians with good language skills seem to be the quickest to find their first job. Table 2 also shows that young people experience the shortest unemployment in Tallinn, while entry to the first job is the slowest in Eastern Estonia.

Table 2 about here

The question is how much do ethnicity and language skills affect the duration of unemployment, taking into account education levels and other independent variables. First, the general model for all respondents is presented in Table 3. As expected, Russian-speakers who have poor Estonian language skills are likely to experience longer unemployment before finding their first job. Estonian language proficiency is important irrespective of educational level and region. In contrast, Russian language proficiency does not reduce the duration of unemployment. There is no ethnic disadvantage for minority youth.

Table 3 shows that in the case of similar independent variables the length of unemployment is shorter in Tallinn than elsewhere in Estonia but the difference between Tallinn and Eastern Estonia is not significant (see also supplementary material). The important question is whether the duration of unemployment varies for Estonians and Russian-speakers in different regions. The model with interaction terms showed a significant covariance between region and ethnic-linguistic group (Appendix 1), so I estimated separate models for regions.

In all three regions, young Russian-speakers not proficient in Estonian are the slowest in moving out of unemployment (Table 3). This tendency is only not statistically significant for Eastern Estonia, but the reason might be the small sample size for this region. It was also not possible to estimate the effect of the Russian language in Eastern Estonia (too few young Estonians without Russian skills). However, the results do show that young Russian-speakers have no disadvantage or advantage over Estonians in terms of the speed of finding their first job in Eastern Estonia.

It seems that Estonians particularly benefit from the good labour market conditions in Tallinn. Unlike in other regions, Estonians with good language skills are quicker labour market entrants than Russians with good language skills. Thus, an ethnic disadvantage appears for Russian-speakers in terms of the duration of unemployment. However, Russian proficiency is important in Tallinn. It is not surprising as there is a large Russian-speaking community in the Tallinn area.

In line with the hypothesis, in other regions of Estonia Russian proficiency is not important and no ethnic disadvantage appears; Estonian skills are the only important factor influencing the speed of finding the first job.

Table 3 about here

The quality of the first job

The next step of the analysis focuses on successful labour market entrants who have found their first stable job. The results in Table 4 show that the average occupational status of the first job is highest for groups with good language skills. The lowest performing group is Russian-speakers with poor Estonian language skills. A comparison of the different regions shows that young Estonians who speak the minority language are clearly the most successful group in Tallinn. In contrast, in Eastern Estonia young Russian-speakers who have good Estonian language skills achieve much higher occupational status than the other groups.

Table 4 about here

The results from the regression analysis, shown in Table 5, indicate differences in job quality for ethnic-linguistic groups if education level, student status, economic sector and region are included in the analysis. The general model shows that Russian-speakers achieve lower occupational status despite their Estonian proficiency. Thus, the results indicate ethnic disadvantage for Russian-speakers. In addition, Russian proficiency seems to be irrelevant if labour market entrants have a similar education level. In the comparison of regions, the analysis shows that youth living in Tallinn area achieve the highest occupational status in their first job (see supplementary material). However, if other characteristics are equal, occupational status is even

slightly higher for youth who are successful in finding a stable job in Eastern Estonia (Table 5).

The model with interactions showed that the effects of ethnicity and language skills significantly depend on region (Appendix 1). Thus, separate models for regions are presented in Table 5. Like the unemployment analysis, the significant ethnic inequalities appear in Tallinn area. Russian-speakers who have poor Estonian language skills are clearly the most disadvantaged group, but minorities with good language skills also lag behind the ethnic majority. Although Russian skills speeded up the entry from unemployment to any kind of first job, these skills were not helpful in achieving higher status stable employment.

In Tallinn, there are many high status jobs in the public sector. Unfortunately, the data does not include information about public or private ownership of enterprises. Further analysis shows that compared to Estonians, Russians with good language skills hold jobs with somewhat lower occupational status in all economic sectors, including the service sector (supplementary material). Thus, it does not seem plausible that their disadvantage is only related to access to the public sector.

The situation is very different in Eastern Estonia (Table 5). The analysis shows that even with similar education levels Russian-speakers have advantages over Estonians. In Eastern Estonia's local labour market, the positions of minority and majority are switched as Russian-speakers are the dominant group, which might be one explanation for the disadvantage of young Estonians in securing high-status jobs. The results also show that young Russian-speakers who have poor Estonian language skills are as successful as Estonians. This is not only because of minority language skills as Estonians with poor Russian language skills do not get worse jobs than other Estonians. However, Estonian language proficiency is still important in the Eastern region. Russian-speakers with good Estonian skills are particularly successful. Further analysis shows that they find high-quality jobs in the service and industrial sectors (supplementary material).

No ethnic disadvantage appears in other Estonian regions where the population is predominantly Estonian. Estonian language proficiency is decisive capital in these regions, while the Russian language is of no importance.

Table 5 about here

Conclusion

Various mechanisms why spatial segregation might be important for youth opportunities in society have been discussed in previous literature. This study examined how ethnic concentration in the region influences the role of language proficiencies and ethnicity for successful labour market entry in Estonia. There are clear lines of ethnic and linguistic segmentation in the Estonian education system, labour market and in different areas of Estonia. The focus was on the labour market integration of the post-first generation Russian-speaking minority, and their opportunities, compared to young Estonians.

The analysis indicates that high proficiency in the host country's language increases labour market success for post-first generation minorities in Estonia. This result is also in line with findings for first generation immigrants in Western Europe. There are fewer studies about the language skills of second generation but findings indicate that the labour market entry is problematic for them in several Western European countries (Heath et al 2008).

The minority language environment seems to some extent to reduce the negative effect of poor host country language skills (*H1*). In Eastern Estonia, where the concentration of Russian-speakers is very high, minority youth with poor Estonian language skills secure first jobs of a rather similar quality to those secured by young Estonians. Nevertheless, Estonian language skills are important for Russian-speakers even in Eastern Estonia, as those proficient in Estonian secure the jobs with the highest occupational status.

The analysis reveals that, in general, proficiency in the minority language does not help young labour market entrants. However, the effect of knowledge of the Russian language depends on region. It gives some advantage for moving out of unemployment to the first job in the Tallinn area. In addition to the ability to communicate with the local Russian-speaking population, there are numerous jobs in tourism and international enterprises in Tallinn that might require Russian language skills. This finding supports the expectation that knowledge of the minority language might have a particular regional value as human capital in areas with high ethnic concentrations (*H2*). Therefore, spatial segregation also influences the economic success of the majority youth. However, Russian proficiency does not affect the quality of the first stable job. It might be that Russian skills are helpful for quickly finding short-term first jobs but do not contribute significantly to the occupational status of the first stable job. Unfortunately, the sample of young people not proficient in Russian in Eastern Estonia is too small to adequately estimate its effect for this region.

The effect of ethnicity on labour market entry depends on region. It is not important in regions where the population of ethnic minorities is very low and ethnic segmentation is less common (*H3c*). In these areas, it is likely that young Russian-speakers are already more integrated with the majority population through the education system or friendship networks.

In Tallinn area being a member of the minority is a disadvantage, as young Russian-speakers with good Estonian skills experience longer unemployment and secure jobs of a lower quality than Estonians (*H3b*). Ethnic differences emerge despite the best general labour market figures in Estonia. Estonians as the majority group are more successful in all economic sectors. Due to the sizeable minority community in Tallinn, young people might grow up in a Russian-speaking environment and have few contacts with Estonians. The Estonian Integration Survey of 2011 showed that about a half of Estonians and a third of Russian-speakers have almost no contacts with people from other ethnic groups in Tallinn (Lauristin et al 2011). Despite some benefit from Russian language skills, ethnic capital does not seem to be of much use to young Russian-speakers. Rather ethnic segmentation in the labour market increases the gap between the minority and the majority. It is likely that the almost similar size of the ethnic groups competing in the labour market and the relatively large number of

people living in the Tallinn area supports a dual, ethnically segmented labour market. There are too few Estonians in Eastern Estonia for a similar divided labour market to develop. Furthermore, the social capital of young Russian-speakers might not be sufficient to compete with Estonians in Tallinn. Previous studies in Estonia have shown that social capital is less valued among ethnic minorities (Vihalemm and Kalmus 2009). Other possible reasons for ethnic differences are employers' discriminatory preferences or very high demands for Estonian language skills. Compared to other Estonian regions, Russian-speakers living in Tallinn perceive there is more unfair treatment in the labour market (Lauristin et al 2011). However, since respondents self-evaluate their Estonian proficiency, the unmeasured differences in language skills might also contribute as an ethnic disadvantage.

In Eastern Estonia, by contrast, the effect of belonging to the Russian-speaking minority is positive for the outcomes of labour market entry, as young Estonians are less successful in securing high-status jobs (*H3a*). Minority youth who have good host country language skills find high-quality jobs in the service and industrial sectors. Russian-speakers have dominated in the industrial sector since Soviet times and even young labour market entrants are probably connected to this sector through social networks. These results might be interpreted as supporting the idea that the usefulness of ethnic capital depends on a sizeable ethnic community (Esser 2007). Thus, despite high unemployment rate in Eastern Estonia, being the dominant ethnic group is beneficial for Russian-speakers. However, I could not separate selection effects and effects generated in the region. Selection effects arise because a prior sorting process causes people in the same area to have similar individual characteristics. More ambitious youth might leave Eastern Estonia to go to Tallinn where general labour market conditions are better but a Russian-speaking environment might encourage the minority youth to return. In addition, Tammaru and Kontuly (2011) find that these members of the minorities who have strong ties with the majority population (Estonian language proficiency, Estonian partner and citizenship) are more likely to leave areas with high ethnic concentrations.

The question remains as to how employers evaluate the quality of education from schools with different languages of instruction. ELFS data also do not include measures of parental resources. Although first generation Russian-speaking immigrants were not negatively selected with respect to human capital, societal changes after the 1990s lowered their labour market position (Pettai and Hallik 2002; Leping and Toomet 2008).

Structural integration of young Russian-speakers is still a challenge in a society divided along ethnic and linguistic lines. In the Estonian context, minorities do not experience any ethnic disadvantages if they live in an area with a very high or low ethnic concentration. However, in Eastern Estonia, where Russian-speakers are the dominant group, young Estonians have even a disadvantage in securing high-status jobs. Knowledge of the host country language increases success everywhere, while the importance of the minority language is rather low and varies depending on region. The reduction of the ethnic segmentation in education seems necessary to support the labour market integration of ethnic groups. One solution would be to encourage communication between ethnic communities even more through non-formal education. In addition, early career consulting would ease the labour market entry by providing access to knowledge about opportunities in the mainstream labour market.

Notes

¹ In the context of Estonia and this paper, the ethnic-linguistic grouping *Russian-speakers* refers to the ethnic minorities of Estonia, composed mainly of Russians, Ukrainians and Byelorussians but also other very small ethnic groups.

² This study focuses on the effects of spatial segregation, but not on ethnic enclaves. Portes and Shafer (2007) define an ethnic enclave as a spatial concentration of immigrants who organize a variety of enterprises to serve their own market as well as the general population.

³ According to the law, proficiency in Estonian is required for public servants, employees of state agencies, local government authorities and legal persons, as well as sales and service workers who must be able to use Estonian at the level which is necessary to perform their service or employment duties.

⁴ According to the Citizenship Law, individuals who were citizens before 1940, and their descendants, were granted citizenship. The other option for achieving citizenship is through naturalization. Children born after 1991 achieve citizenship without naturalization if their parents apply for it.

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Table 1. Descriptive overview of the subsample for the first job quality (First job) and the subsample for unemployment (Unemployed), ethnolinguistic groups in subsamples according to education and region, percentages (%)

	Ethnic Estonians with good Russian language skills		Ethnic Estonians with poor Russian language skills		Russian-speakers with good Estonian language skills		Russian-speakers with poor Estonian language skills	
	First job	Unemployed	First job	Unemployed	First job	Unemployed	First job	Unemployed
Education								
Basic	21	21	29	25	16	15	27	19
Vocational	16	20	20	28	14	25	39	49
General secondary	38	27	33	27	42	27	20	18
Secondary specialised	6	6	7	9	7	9	8	5
Higher	20	26	11	11	21	24	6	9
<i>Total %</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
Region								
Tallinn area	31	27	21	15	71	59	49	45
Eastern Estonia	5	8	1	1	15	21	42	47
Elsewhere in Estonia	64	66	78	84	14	20	9	8
<i>Total %</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
<i>Total N of ethno-linguistic group</i>	<i>476</i>	<i>199</i>	<i>2453</i>	<i>1120</i>	<i>404</i>	<i>169</i>	<i>348</i>	<i>192</i>

Source: Author's calculations based on ELFS-s 2002-2011.

Table 2. Entry into first significant job, survival function indicating the percentage of youth who are still unemployed in 3, 6 and 12 months after start of the unemployment

	3 months after start of unemployment	6 months after start of unemployment	12 months after start of unemployment
<i>Ethno-linguistic group</i>			
Estonian with good Russian language skills	35	25	18
Estonian with poor Russian language skills	35	28	20
Russian-speaker with good Estonian language skills	38	29	29
Russian-speaker with poor Estonian language skills	51	43	31
<i>Region</i>			
Tallinn area	33	25	23
Eastern Estonia	49	43	34
Elsewhere in Estonia	37	29	22

Source: Author's calculations based on ELFS-s 2002-2011.

Table 3. The influence of ethnicity and language on speed of moving out of unemployment (finding any first job), coefficients (Coef.) from the piecewise constant exponential models and standard errors (S.E.)

	General model		Tallinn		Eastern Estonia		Elsewhere in Estonia	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
<i>Ethno-linguistic group</i> (referent Estonian with good Russian skills)								
Russian-speaker with poor Estonian language skills	-.58***	(.15)	-.82***	(.22)	-.61	(.40)	-.64*	(.34)
Russian-speaker with good Estonian language skills	-.23	(.14)	-.55***	(.21)	.10	(.41)	-.14	(.25)
Estonian with poor Russian language skills	.04	(.09)	-.31*	(.18)			.11	(.11)
<i>Region</i> (referent Tallinn area)								
Eastern Estonia	-.05	(.14)						
Elsewhere in Estonia	-.22***	(.08)						
<i>Urban area</i> (referent rural)	.10	(.07)	.15	(.17)	.08	(.52)	.09	(.08)
<i>Education</i> (referent general secondary)								
Basic education	-0	(.09)	.23	(.18)	-1.4**	(.61)	-.11	(.11)
Vocational education	0.08	(.08)	.33**	(.17)	-.65*	(.37)	-.02	(.10)
Secondary specialised	.33***	(.11)	.55**	(.25)	.38	(.62)	.20	(.14)
Higher education	.37***	(.10)	.45**	(.19)	-.12	(.41)	.27**	(.13)
<i>Time (in months)</i>								
0-6	-.91***	(.13)	-.65**	(.25)	-.49	(.48)	-1.1***	(.14)
More than 6	-2.4***	(.23)	-2.7***	(.56)	-1.23	(.77)	-2.6***	(.26)
<i>Log likelihood</i>	-2194.5		-529.7		-182.2		-1481.2	
<i>N of observations</i>	1850		446		165		1239	

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Gender and period are controlled for.
Source: Author's calculations based on ELFS-s 2002-2011.

Table 4. Average occupational status (ISEI) of ethno-linguistic groups by region

	Estonian with good Russian language skills	Estonian with poor Russian language skills	Russian-speaker with good Estonian language skills	Russian-speaker with poor Estonian language skills
<i>Overall mean</i>	42	37	41	34
<i>Mean ISEI in regions</i>				
Tallinn area	47	42	41	32
Eastern Estonia	36	35	46	36
Elsewhere in Estonia	40	36	35	32
<i>Total N</i>	476	2453	404	348

Source: Author's calculations based on ELFS-s 2002-2011.

Table 5. The influence of ethnicity and language on occupational status (ISEI), linear regression coefficients (Coef.) and standard errors (S.E.)

	General model		Tallinn		Eastern Estonia		Elsewhere in Estonia	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
<i>Ethno-linguistic group</i> (referent Estonian with good Russian language skills)								
Russian-speaker with poor Estonian language skills	-4.3***	(.93)	-7.4***	(1.4)	4.4	(2.7)	-5.3***	(2.1)
Russian-speaker with good Estonian language skills	-3.4***	(.82)	-6.1***	(1.3)	5.6**	(2.8)	-1.0	(1.6)
Estonian with poor Russian language skills	-.5	(.59)	-1.9	(1.2)	-1	(3.2)	-18	(.70)
<i>Region</i> (referent Tallinn area)								
Eastern Estonia	1.9**	(.88)						
Elsewhere in Estonia	-1.3***	(.50)						
<i>Urban area</i> (ref. rural)	1.3***	(.44)	3.9***	(1.0)	-3.3	(3.0)	.5	(.49)
<i>Education</i> (referent general secondary)								
Basic education	-5.9***	(.53)	-6.8***	(1.0)	-6.3***	(1.9)	-5.3***	(.64)
Vocational education	-2.0***	(.54)	-3.9***	(1.2)	-3.6**	(2.0)	-1.2*	(.70)
Secondary specialised	.56	(.81)	3.5*	(1.8)	3.2	(2.7)	-.7	(.95)
Higher education	16.6***	(.66)	16.7***	(1.2)	22.9***	(2.4)	15.4***	(.84)
<i>Student</i> (ref. not student)	5.2***	(.47)	4.0***	(.86)	4.6***	(2.1)	6.0**	(.59)
<i>Branch of economy</i> (referent service industry)								
Agriculture	-15.1***	(.95)	-14.0***	(5.6)	-11.0**	(5.4)	-15.4***	(1.0)
Industry	-7.1***	(.58)	-6.7***	(1.2)	-2.6	(1.7)	-7.6***	(.72)
Construction	-7.1***	(.66)	-5.7***	(1.3)	-4.6**	(2.2)	-8.0***	(.82)
Sales, hotels and restaurants	-3.6***	(.53)	-4.6***	(.96)	1.5	(2.0)	-3.4***	(.68)
<i>Adjusted R-squared</i>	.41		.38		.48		.41	
<i>N</i>	3681		1119		249		2313	

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Gender and period are controlled for.

Source: Author's calculations based on ELFS-s 2002-2011

Appendix

Table 1A. The influence of ethnicity and language on speed of moving out of unemployment and on occupational status, interactions between region and ethno-linguistic group, linear regression coefficients (Coef.) and standard errors (S.E.)

	Unemployment		First job	
	Coef.	S.E.	Coef.	S.E.
<i>Ethno-linguistic group</i> (referent Estonian, good Russian skills)				
Russian-speaker, poor Estonian skills	-.85***	(.21)	-6.9***	(1.3)
Russian-speaker, good Estonian skills	-.58***	(.20)	-6.1***	(1.2)
Estonian, poor Russian skills	-.35**	(.18)	-2.5**	(1.1)
<i>Region</i> (ref. Tallinn area)				
Eastern Estonia	-1.2**	(.52)	-6.9***	(2.6)
Elsewhere in Estonia	-.59***	(.18)	-3.8***	(1.2)
<i>Urban area</i> (referent rural)	.11*	(.07)	1.2***	(.44)
<i>Education</i> (referent general secondary)				
Basic education	-.01	(.09)	-5.9***	(.53)
Vocational education	0.08	(.08)	-2.0***	(.58)
Secondary specialised	.33***	(.11)	-.51	(.81)
Higher education	.35***	(.10)	16.6***	(.66)
<i>Region * ethno-linguistic group</i> (referent Tallinn * Estonian, good Russian skills)				
Eastern Estonia * Russian-speaker, poor Estonian skills	1.1*	(.56)	10.7***	(2.9)
Elsewhere in Estonia * Russian-speaker, poor Estonian skills	.18	(.39)	1.7	(2.4)
Eastern Estonia * Russian-speaker, good Estonian skills	1.3**	(.58)	10.8***	(3.1)
Elsewhere in Estonia * Russian-speaker, good Estonian skills	.43	(.32)	5.0**	(2.0)
Eastern Estonia * Estonian, poor Russian skills	...		4.6	(3.6)
Elsewhere in Estonia * Estonian, poor Russian skills	0.46**	(.21)	2.5*	(1.3)
<i>Log likelihood / adjusted R-squared</i>	-2186.7		.41	
<i>N of observations / N</i>	1850		3681	

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Unemployment model: coefficients from the piecewise constant exponential models; controlling for gender, period and time in months.

First job: linear regression coefficients; controlling for gender, period, student status and branch of economy.

Source: Author's calculations based on ELFS-s 2002-2011.

Supplementary material

Table 1B. The influence of region on speed of moving out of unemployment and on occupational status in model without other independent variables, coefficients (Coef.) and standard errors (S.E.)

	Unemployment		First job	
	Coef.	S.E.	Coef.	S.E.
<i>Region</i> (ref. Tallinn area)				
Eastern Estonia	-.37***	(.13)	-2.6**	(1.0)
Elsewhere in Estonia	-.10	(.07)	-4.5***	(.5)
<i>Log likelihood / adjusted R-squared</i>	-2204.7		.02	
<i>N of observations / N</i>	1850		3681	

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Unemployment model: coefficients from the piecewise constant exponential models; controlling for time in months.

First job: linear regression coefficients.

Source: Author's calculations based on ELFS-s 2002-2011.

Table 2B. The influence of ethnicity and language on occupational status (ISEI) by economic sector in Tallinn area, linear regression coefficients (Coef.) and standard errors (S.E.)

	Industry		Construction		Sales, hotels and restaurants		Service	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
<i>Ethnic-linguistic group</i> (referent all Estonians)								
Russian-speaker, poor Estonian skills	-4.9***	(1.6)	-6.3***	(2.6)	-5.9***	(2.1)	-6.5**	(2.7)
Russian-speaker, good Estonian skills	-3.1	(1.9)	-7.2***	(3.1)	-3.8**	(1.6)	-4.7***	(1.5)
<i>Education</i> (referent general secondary)								
Basic education	-2.3	(1.6)	-4.5	(2.8)	-7.2***	(1.6)	-	(2.1)
Vocational education	1.0	(1.7)	1.7	(2.9)	-5.3**	(2.4)	10.5***	(2.4)
Secondary specialised	1.5	(5.1)	.95	(4.4)	5.6	(3.7)	5.0*	(2.9)
Higher education	19.0***	(1.6)	15.3***	(4.1)	14.1***	(2.9)	16.6***	(1.8)
<i>Student</i> (referent not student)	3.7**	(1.6)	5.7**	(2.7)	2.5	(1.5)	3.7***	(1.5)
<i>Adjusted R-squared</i>	.33		.24		.22		.30	
<i>N</i>	188		150		280		496	

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Controlling for gender, period and urban residence. Source: Author's calculations based on ELFS-s 2002-2011.

Table 3B. Average occupational status (ISEI) in the first job for Russian-speakers working in different branch of industry in Tallinn and Eastern Estonia

	Eastern Estonia				Tallinn			
	Russian-speaker, good Estonian skills		Russian-speaker, poor Estonian skills		Russian-speaker, good Estonian skills		Russian-speaker, poor Estonian skills	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Industry	44	(4.0)	34	(0.7)	36	(2.1)	30	(0.6)
Construction	-		34	(1.4)	31	(1.4)	30	(1.2)
Sales, hotels and restaurants	45	(3.6)	37	(2.1)	38	(1.6)	32	(1.5)
Service	48	(2.6)	47	(3.2)	47	(1.6)	39	(2.7)
<i>N</i>	59		146		287		169	

Source: Author's calculations based on ELFS-s 2002-2011.

KOKKUVÕTE

Venekeelsete noorte struktuurne integratsioon postsovetlikes kontekstides: hariduse omandamine ja tööturule sisenemine

Eesmärk ja uurimisküsimused

Doktoritöö uuris venekeelsete noorte struktuurset integratsiooni postsovetlikes kontekstides Eestis, Lätis ja Ukrainas ehk riikides, mis olid osa endisest Nõukogude Liidust. Töö keskmes olid venekeelsed noored, kes on sündinud uuel asukohamaal³² ja omandanud hariduse peamiselt pärast 1991. aastat. Seega vaatles töö teise ja hilisema põlvkonna immigrantide toimetulekut. Struktuurne integratsioon näitab üldiselt kaasatust ühiskonna institutsioonidesse. Doktoritöös analüüsiti struktuurse integratsiooni kolme tahku: õpitulemusi³³, haridusvalikuid³⁴ ja tööturule sisenemist. Eesmärgiks oli leida, kuidas rahvus ja keeleoskus mõjutavad hariduse omandamist ja tööturule sisenemise edukust ning kuidas need sündmused sõltuvad kontekstist – keeleliselt jaotunud haridussüsteemist ja keelekeskkonnast tööturul. Töö keskendus Eestile kui postsovetliku konteksti näitele, võrdlused teiste riikidega aitasid avada Eesti eripära. Eestit võrreldi Lätiga, sest mõlemas riigis jagunevad üldhariduskoolid õppekeele alusel. Eesti ja Ukraina võrdlus tulenes eeldusest, et keelekeskkond tööturul mõjutab esimese töö leidmise edukust. Eesti regioonide võrdlus näitas kohaliku sotsiaalse keskkonna mõju struktuurse integratsiooni tulemustele.

Teise põlvkonna uurimuste põhjal Lääne-Euroopas oletatakse sageli, et rahvusvähemuste nõrgemate haridussaavutuste põhjuseks on ebapiisav keeleoskus. Eesti ja Läti kontekst võimaldas uurida, millised on haridussaavutused keeleliselt jaotunud koolisüsteemis, kus venekeelne vähemus saab osaliselt õppida oma emakeeles. Lisaks uuriti teise ja hilisema põlvkonna immigrantide keeleoskuse mõju tööturule sisenemisele, mida Lääne-Euroopa uurimustes on vähe käsitletud (pigem pööratakse tähelepanu esimese põlvkonna keeleoskusele). Samuti on vähesed uuringud analüüsinud rahvusvähemuse keele oskuse olulisust tööturule sisenemisel.

Töö otsis vastuseid kahele peamisele uurimisküsimusele: 1) Kuidas sõltub hariduse omandamine ja tööturule sisenemine keeleoskusest ja rahvusest? Kuidas mõjutab sotsiaalne päritolu eri rahvusest noorte hariduse omandamist? 2) Millist mõju avaldavad struktuurse integratsiooni tulemustele keeleliselt jaotunud haridussüsteem ja keelekeskkond tööturul?

Eestis, Lätis ja Ukrainas moodustab venekeelne vähemus suhteliselt suure osa kogu rahvastikust. Vastupidiselt immigrantidele, kes saabusid töötamise eesmärgil

³² Siin kokkuvõttes on *host country* tõlgitud asukohamaaks.

³³ *Educational performance* on tõlgitud kui õpitulemus. Sellega tähistatakse koolis omandatud teadmisi ja oskusi, kuid mitte omandatud haridustaset.

³⁴ Haridusvaliku ja haridusülemineku all mõistetakse suundumist põhikoolist keskkooli ning keskkoolist kõrgkooli.

Lääne-Euroopa riikidesse 1960. ja 1970. aastatel³⁵, ei iseloomustanud Nõukogude Liidu (NL) perioodil³⁶ sisserännanud venekeelset elanikkonda kohalikest elanikest madalam tööalane positsioon või üldine haridustase. Sel ajal oli Eesti, Läti ja Ukraina haridussüsteemi ja tööturu ülesehituses mitmeid ühiseid jooni. Siiski olid erinevalt Eestist ja Lätist venelased juba 20. sajandi alguses Lõuna- ja Ida-Ukraina linnades suurim rahvusgrupp ning nendes piirkondades võtsid ukrainlased üle vene keele, mille kasutamist propageeriti kogu NL perioodil aktiivselt. Kuigi kõigis kolmes riigis on pärast NL kokkuvarisemist ainult üks riigikeel³⁷, siis on Ukrainas vene keele staatus ühiskonnas püsunud kõrgena ning ka kontaktid Venemaaga on tugevad. Eesti ja Läti venekeelse elanikkonna jaoks kerkisid pärast 1991. aastat esile mitmed raskused, nt kodakondsuse saamine, ebapiisav riigikeele oskus või tööturul vähekasulikud sotsiaalsed võrgustikud. Need probleemid iseloomustavad sisserännanuid ka Lääne-Euroopa riikides.

Doktoritöö koosnes neljast alauurimusest. Analüüsiloogika lähtus inimese eluteest. *Uurimus 1* analüüsis põhikooli lõpuklassides õppivate 15-aastaste noorte õpitulemusi Eestis ja Lätis. Uuriti, kuidas emakeeles õppimine mõjutab õpitulemusi ning milline on sotsiaalse tausta ja koolikeskkonna olulisus keeleliselt jaotunud haridussüsteemides. Riikide võrdlus aitas selgitada integratsioonikeskkonna rolli. *Uurimus 2* analüüsis noorte eestlaste ja venelaste haridusüleminekuid põhikoolist keskkooli ja keskkoolist kõrgkooli. Uuriti, kas haridusvalikud seostuvad sotsiaalse tausta, eesti keele oskuse ja kodakondsusega ning kuidas keeleline jagunemine haridussüsteemis võib viia rahvusühise haridusliku ebavõrdsuse tekkeni. Omandatud haridusel on oluline mõju tööturuvõimalustele, kuid otsustavad võivad olla ka teised tegurid. Seetõttu uuriti keeleoskuse ja rahvuse rolli tööturule sisenemisel. *Uurimus 3* analüüsis Eesti ja Ukraina võrdluses, kuidas enamuse ja vähemuse keele oskuse olulisus esimese töö leidmisel sõltub ühiskondlikust kontekstist. *Uurimus 4* analüüsis, kuidas keeleoskuse ja rahvuse mõju tööturule sisenemisele sõltub kohalikust sotsiaalsest keskkonnast kolme Eesti regiooni võrdluses: (1) Tallinn ja Harjumaa, (2) Ida-Virumaa, ning (3) ülejäänud Eesti.

Mõned teoreetilises taustas esitatud lähenemised

Doktoritöö teoreetiline taust lähtus ühelt poolt ühiskonna ja etnilise grupi tasemel integratsiooni seletavatest lähenemistest ning teisalt indiviidi tasemel integratsiooni tulemusi seletavatest käsitlustest.

³⁵ Teise põlvkonna uuringud Lääne-Euroopas keskenduvad sageli selle immigrantide grupi lastele.

³⁶ Erinevalt Eestist ja Lätist kestis NL periood Ukrainas 1922-1991.

³⁷ Alates 2012. aastast laiendas Ukraina vene ja teiste vähemuskeelte ametlikku kasutamist avalikus sfääris.

Klassikaline assimilatsiooniteooria eeldab, et struktuurne integratsioon enamusühiskonda³⁸ on lineaarne protsess üle põlvkondade, millega kaasneb ülenev mobiilsus (Alba ja Nee 1997). Assimilatsiooniteooria kaasaegsem versioon rõhutab, et enamusühiskond on muutunud järjest mitmekesisemaks ning seega tähendab assimilatsioon ennekõike rahvusvähemuste sarnaseid võimalusi enamusühiskonnaga. Mitmetes Lääne-Euroopa uurimustes on selgunud, et võrreldes esimese põlvkonnaga paraneb teise põlvkonna hariduslik ja tööalane positsioon (Thompson ja Crul 2007; Heath jt 2008). Seevastu *segmenteeritud assimilatsiooniteooria* esitab kolm immigrantide kohanemise mudelit (nt Portes ja Zhou 1993). Esiteks, klassikaline lineaarne integratsioon, mida järgivad kõrgema sotsiaalmajandusliku positsiooniga vähemused. Teiseks, alanev integratsioon ehk sulandumine ühiskonna madalaima kihi hulka, mis on riskiks diskrimineeritud ja vaesemate etniliste gruppide jaoks. Kolmandaks, kohanemine etnilise grupi sees, mille eelduseks on grupisisene toimiv sotsiaalne võrgustik, mis aitab koondada ressursse (sh ka moraalne toetus). Selle tulemusel võib teine põlvkond olla edukas hariduses ja tööturul, isegi kui sotsiaalne keskkond on ebasoodne (nt elatakse kõrge töötusega piirkonnas). Siiski võib samaaegse nii vähemus- kui ka enamusgruppi kaasatuse asemel olla tulemuseks kaasatus ainult etnilisse gruppi, mis võib kujuneda mobiilsuslõksuks ning tagajärjeks on etniline *segmentatsioon* (Esser 2006). Nendele eelkõige Ameerika Ühendriikide kontekstist lähtuvatele teooriatele on oponentide Euroopa uurijad, leides, et etnilise grupi rolli tähtsustatakse üle ja rohkem peaks tähelepanu pöörama integratsiooni kontekstile riigi tasemel, sh eriti haridussüsteemile (Thompson ja Crul 2007).

Indiviidi tasemel kujundavad omandatud haridustaset nii õpitulemused koolis kui ka haridusvalikud (Boudon 1974). Õpitulemused koolis seostuvad õpilaste ja nende vanemate keeleoskusega (nt Heath ja Brinbaum 2007). Õpilased võivad kogeda ebapiisavast keeleoskusest tulenevaid raskusi ka kaudselt, sest kooliülesanded on seotud keelelise ja kultuurilise konteksti mõistmisega. Seniste uurimuste tulemused on aga mitmekesised ja seetõttu ei saa teha ühtset järeldust keeleoskuse ning ka kakskeelsete õppeprogrammide mõju kohta õpitulemustele (Esser 2006). Samuti on olulised sotsiaalne taust ja ootused. Lääne-Euroopa riikides põhjustab rahvusgruppide erinevaid õpitulemusi suures osas immigrantidest vanemate madalam haridustase või tööturupositsioon. Teisalt eeldatakse, et haridusvalikud on tugevalt seotud tulevikkuvaatava ratsionaalse otsustamisega (Breen ja Goldthorpe 1997; Jackson jt 2012). Seetõttu võivad teise põlvkonna haridusvalikud hoolimata madalamatest õpitulemustest olla kohalikest isegi ambitsioonikamad, kui haridust nähakse võimalusena ühiskonnas edasi liikuda (nt Heath jt 2008). Seda tendentsi nimetatakse ka “immigrantide optimismiks” (Kao ja Thompson 2003). Samas, kui rahvusvähemus ei usalda kooli ja arvab, et kool surub maha nende identiteeti, võib välja kujuneda vastukultuur koolile (Ogbu ja Simons 1998). Õpitulemused ja haridusvalikud sõltuvad ka koolikeskkonnast. Eeldatakse, et õpilased loovad

³⁸ *Mainstream society* on tõlgitud kui enamusühiskond.

koolikeskkonna paremusest ja puudusest, mida nad kodust kooli toovad (Portes ja Hao 2004).

Tööturule sisenemist mõjutab lisaks omandatud haridusele ka keeleoskus. Üldiselt võib keeleoskust käsitleda kui riigispetsiifilist inimkapitali, mis on osadel tööturgudel väärtuslikum kui teistel (Chiswick 1978). Tööturгу käsitlevad uurimused näitavad, et esimese põlvkonna immigrantide ebaedu peamine põhjus on ebapiisav riigikeele oskus. Seevastu rahvusvähemuse keele oskus aitab tööturul ainult siis, kui keelel on teatud regionaalne või globaalne väärtus (Esser 2004). Palju sõltub keelekeskkonnast – millised on ametlikud ja tegelikud keelenõuded tööturul. Samuti on oluline piirkonna keeleline või rahvuslik koosseis, sest kasu vähemuskeele oskusest tõuseb rahvusvähemuse osakaalu suurenedes (Pendakur ja Pendakur 2002). Uurimuste järgi on rahvusvähemuse ebaedu põhjuseks ka rahvusepõhine diskrimineerimine või eelarvamustega suhtumine aktsendiga rääkimisse (Stolzenberg ja Tienda 1997).

Andmed, muutujad ja meetod

Uurimus 1 põhines OECD PISA 2006 uuringule, mis mõõdab 15-aastaste õpilaste teadmisi ja oskusi. Kuna PISA-s kogutakse andmeid nii õpilase kui ka kooli tasemel, siis kasutati hierarhilist lineaarset regressiooni, et analüüsida matemaatika õpitulemusi. *Uurimus 2* põhines Eesti TIES 2007/2008 uuringule, milles küsitleti Tallinna ja Kohtla-Järve piirkonnas elavaid noori eestlasi ja teise põlvkonna venelasi. Selle uuringu eeliseks on tagasivaatelised andmed indiviidi haridus- ja töötee kohta. Haridusvalikute (keskharidus ja kõrgharidus) analüüsimetodiks oli logistiline regressioonanalüüs. *Uurimused 3* kasutati samuti Eesti TIES 2007/2008 uuringut ja Ukraina Noorte Uuringut 2007. Meetodiks oli sündmusajaloo analüüs (*event history*), mis selgitas kui kiiresti leiavad noored pärast kooli lõppu stabiilse töökoha kestusega vähemalt 6 kuud, sh analüüsiti ka kõrge staatusega teenindussektori töö saamise tõenäosust. *Uurimus 4* põhines Eesti Tööjõu-uuringutele aastatest 2002-2011, mis sisaldavad andmeid ühe aasta tööturuliikumiste ja esimese stabiilse töö kohta. Esiteks analüüsiti töötuse kestust enne esimese töö leidmist (sh võeti arvesse ka ebastabiilseid ja madala staatusega töid). Teiseks uuriti ametialast staatust esimesel stabiilsel töökohal (kestusega vähemalt 6 kuud). Meetoditeks oli sündmusajaloo analüüs ja lineaarne regressioonanalüüs. Kõikides uuringutes määratlesid vastajad ise oma rahvuse ja emakeele ning hindasid oma keeleoskuse taset.

Peamised tulemused ja järeldused

Doktoritööst selgus, et erinevus omandatud haridustasemes on noorte eestlaste ja teise põlvkonna venelaste vahel suurenenud võrreldes nende vanematega (*uurimus 2*). Kui vanemate põlvkonnas oli rahvusgruppide üldine haridustase võrdlemisi sarnane, siis teise põlvkonna venelaste haridustase on võrreldes eestlastega

madalam. See tulemus on vastupidine Lääne-Euroopa riikides leitule, kus kehtib pigem lineaarse assimilatsiooni printsiip, mille järgi iga järgnev põlvkond läheneb oma haridustasemelt ja tööturupositsioonilt enamusrahvusele (Thompson ja Crul 2007). Erinevus saavutatud haridustasemes võib tuleneda õpitulemustest koolis ja haridusvalikutest. *Uurimusest 1* selgus, et vene koolides õppivad 15-aastased noored said PISA testis ligikaudu 40 punkti madalama matemaatikatumemuse, mis OECD (2010) hinnangul võrdub ühe kooliaastaga. Õpitulemused vene koolides on nõrgemad hoolimata tuttavast keelelisest ja kultuurilisest keskkonnast³⁹. *Uurimus 2* näitas, et rahvus mõjutab haridusüleminekuid. Võrreldes eestlastega jätkavad teise põlvkonna venelased oma haridusteed üldkeskkoolis ja kõrgkoolis vähemtõenäoliselt.

Uurimused Lääne-Euroopa riikides on näidanud, et rahvusvähemuste nõrgemad õpitulemused on peamiselt seotud nende madalama sotsiaalmajandusliku taustaga (Heath jt 2008). Samas ei tingi Eestis üldised stratifikatsioonimehhanismid rahvusgruppide erinevaid õpitulemusi ja haridusvalikuid (*uurimus 1* ja *uurimus 2*). See tähendab, et venekeelsete noorte madalam haridustase ei ole otseselt põhjustatud nende vanemate haridusest ja tööalasest positsioonist. Samuti näitasid tulemused, et venekeelsete vanemate madal eesti keele oskus või puuduv Eesti kodakondsus ei vähenda nende laste võimalusi jätkata õpinguid üldkeskkoolis ja kõrgkoolis (*uurimus 2*). See tulemus on oodatav, sest keskkoolis saab õppida vähemalt osaliselt vene keeles, kuigi kasvav eestikeelse õppe osakaal vene õppekeelega koolides võib suurendada ka vanemate keeleoskuse olulisust. Vanemate sotsiaalsest taustast võivad sõltuda ka õpilaste motivatsioon ja püüdlused⁴⁰. *Uurimuse 1* tulemused näitasid, et vahe eesti ja vene kodukeelega õpilaste õpitulemustes ei ole tingitud nende motivatsioonist õppida matemaatikat ja tulevikupüüdlustest, vaid need on kahel grupil küllaltki sarnased. Seega Eesti tulemused ei viita nn. immigrandide optimismile, mis ilmneb mitmetes Lääne-Euroopa riikides.

Keeleoskusel on kahtlemata võtmeroll struktuurse integratsiooni edukuses. Doktoritöö tulemused näitasid, et suurem kaasatus enamusgruppi (õppimine eestikeelses koolis) ja eesti keele oskus soodustavad edu hariduses. See tulemus on vastavuses lineaarse assimilatsiooniteooria argumentatsiooniga, mis eeldab, et tihedamad kontaktid enamusgrupiga aitavad kaasa struktuursele integratsioonile. *Uurimusest 2* selgus, et eesti keele oskusel on tugev seos haridusüleminekutega⁴¹. Eesti keelt hästi oskavad noored jätkavad sagedamini õpinguid üldkeskkoolis ja

³⁹ Põhikooli matemaatika lõpueksami tulemused eesti ja vene õppekeelega koolides ei erine. Lõpueksami tulemused näitavad ennekõike õppekavas nõutavate teadmiste omandamist, kuid PISA mõõdab üldisi teadmisi ja oskusi matemaatikas.

⁴⁰ *Aspirations* on siin tõlgitud kui püüdlused (hariduspüüdlused, ametialased püüdlused). See tähistab inimeste soove tuleviku suhtes, mille korral ei ole reaalsed võimalused nende täitumiseks nii olulised.

⁴¹ Kuna keeleoskust mõõdeti küsitluse ajal, siis on seos kahe-suunaline ehk üldkeskkoolis ja kõrgkoolis õppimine tõstab keeleoskust.

kõrgkoolis. Samuti suurendas Eesti kodakondsuse omamine keskkooli lõpus tõenäosust jätkata õpinguid kõrgkoolis. Need tulemused olid oodatavad, sest madal eesti keele oskus piirab juurdepääsu tasuta kõrgharidusele. Eestikeelses koolis õppimine seostub ka õpitulemustega. *Uurimusest 1* ilmnes, et vene kodukeelega õpilased saavutavad eesti õppekeelega koolis paremaid õpitulemusi (isegi kui võtta arvesse vanemate sotsiaalmajanduslikku tausta). Samas ei saa seda tulemust tõlgendada kui ainult eesti õppekeelega kooli positiivset mõju⁴², sest olulised võivad olla analüüsis mõõtmata eelvalikumehhanismid nagu eesti koolis õppivate venekeelsete õpilaste võimalik suurem võimekus või vanemate tugev motiveeritus. Siiski jäävad venekeelsete noorte õpitulemused alla samas koolis õppivatele eestlastele.

Integratsiooni edukust hariduses mõjutab kohalik sotsiaalne keskkond. *Uurimus 1* näitas, et nõrgemad õpitulemused vene õppekeelega koolides on osaliselt tingitud nende koolide sotsiaalmajanduslikkust koosseisust (mõõdetud kui koolis õppivate õpilaste vanemate keskmine tööalane staatus). Võib järeldada, et venekeelse elanikkonna üldine alanev mobiilsus tööturul 1990. aastatel on madaldanud vene õppekeelega koolide sotsiaalmajanduslikku koosseisu. Seda soodustavad ka vähemuse enda eelistused, sest kõrgema tööalase staatusega venekeelsed vanemad on oma lastele sagedamini valinud eesti õppekeelega kooli kui tööturul vähem edukad vanemad (uurimus 1). Kui neid tulemusi võrrelda segmenteeritud assimilatsiooniteooriaga, mille järgi sotsiaalsed võrgustikud ning toetus etnilise grupi sees võivad aidata kaasa edule koolis isegi ebasoodsates majanduslikes tingimustes, siis Eesti kontekstis võib pigem järeldada, et vene õppekeelega kool ei toimi kui kanal, mille kaudu kogukond koondaks oma võimalusi soodustamaks noorte edukust hariduses.

Siiski ei saa järeldada, et keeleliselt jaotunud haridussüsteem suurendab paratamatult ebavõrdsust hariduses. Selgus, et Lätis saavutavad õpilased läti ja vene õppekeelega koolides sarnaseid õpitulemusi (*uurimus 1*). Üldiselt iseloomustavad Läti ja Eesti poliitilist ja majanduslikku arengut mitmed ühised jooned ning mõlema riigi integratsioonipoliitika rõhutab riigikeele olulisust (Vihalemm ja Kalmus 2009). Samas on kahe riigi integratsioonikeskkonnas ka erinevusi, mis võivad seletada haridussaavutustes ilmnenuid erisusi. Lätis on igapäevaelu tasandil distantsem enamuse ja vähemuse vahel mõnevõrra väiksem: rahvusgruppide sotsiaalmajanduslik positsioon on sarnasem, rohkem on eri rahvuste vahelisi abielusid ja territoriaalne segregatsioon ei ole nii tugev kui Eestis⁴³ (Hazans 2010; Rozenvalds 2010).

Teine põlvkond võib kogeda tööturule sisenemisel enam raskusi isegi kui neil on õnnestunud omandada hea haridustase. Doktoritöö tulemused näitasid, et teise ja hilisema põlvkonna venekeelsetel noortel kulub eestlastest rohkem aega, et leida

⁴² PISA uuring ei võimalda teha otseseid põhjuslikke järeldusi kooli mõju kohta, sest õpilaste teadmisi mõõdetakse ainult ühel ajahetkel.

⁴³ Analüüsis ei käsitleta poliitilise keskkonna ja konfliktide mõju, vaid pigem oletatakse, et kogukondade seotus või eraldatus igapäevaelu tasandil võib selgitada gruppidevahelisi erinevusi õpitulemustes.

esimene stabiilne töökoht ja nad saavad madalama staatusega töökohad. Seejuures sõltub nende edu tugevalt riigikeele oskusest. Sarnane tendents on ka ilmnenud paljudes Lääne-Euroopa riikide uurimustes, mis käsitlevad esimese põlvkonna immigrante (Esser 2006). Olukord Eestis on vastupidine Ukrainale. *Uurimusest 3* selgus, et Ukrainas ei ole ukraina keele (riigikeele) oskus esimese töö leidmiseks oluline, kuigi ametlikult nõutakse seda avaliku sektori kõrgetasemelistel töödel. Venekeelsed noored on kõige edukamad tööturule sisenejad. Ukrainat ja Venemaad ühendavad tugevad majanduslikud ja poliitilised sidemed ning vene keele staatus ühiskonnas on jäänud kõrgeks. Seevastu kontrollitakse Eestis rangelt keelenõudmiste järgmist tööturul. See peegeldub venekeelse elanikkonna suhtumistes, sest enamik peab eesti keele oskuse omandamist ennekõike pragmaatiliseks vajaduseks (Korts 2009). Eesti ja Ukraina võrdlus rõhutab, et hoolimata ametlikest keelenõuetest sõltub keelte olulisus tööturule sisenemisel nende tegelikust kasutusest ja staatusest ühiskonnas.

Eesti regionide võrdluses selgus, et eesti keele oskus aitab tööturule sisenemisele kaasa kõigis piirkondades, isegi Ida-Virumaal, kus ligikaudu 80% elanikkonnast on venekeelne (*uurimus 4*). Ida-Virumaal on eesti keelt hästi oskavad venekeelsed noored kõige edukamad tööturule sisenejad, ka kohalike eestlastega võrreldes. Samas viitavad tulemused, et keelekeskkond Ida-Virumaal vähendab venekeelsete noorte jaoks ebapiisava eesti keele oskuse negatiivset mõju. Tulemused näitavad, et Eestis ei mõjuta vene keele oskus noorte võimalusi leida esimene stabiilne kõrge staatusega töökoht (*uurimus 3* ja *uurimus 4*). On selge, et paljudel töökohtadel vajatakse vene keele oskust, kuid osad sellised tööd ei ole kõrge staatusega (nt müügitöö) ja tõenäoliselt on tööturul piisavalt kõrgetasemelisi töid ka madala vene keele oskusega noortele. Veel analüüsiti doktoritöös igasuguse esimese töö leidmist, kaasaarvatud lühiajalise ja madala staatusega töö leidmist. Selgus, et vene keele oskus annab eelise sellise esimese töö leidmisel piirkondades, kus venekeelne elanikkond on arvukas. See tulemus toetab osaliselt eeldust, et vähemuskeele kui inimkapitali kasulikkus sõltub rahvusvähemuse osakaalust piirkonnas.

Et selgitada rahvusgrupi mõju tööturule sisenemisele võrreldi hästi eesti keelt oskavate venekeelsete noorte edukust eestlastega, kelle haridustase ja keeleoskus on sarnane. *Uurimus 4* näitas, et rahvus võib mõjutada tööturule sisenemist olenemata heast keeleoskusest ja sarnasest haridustasemest. Selle mõju olulisus varieerub erinevatest Eesti piirkondades. Selgus, et piirkondades, kus venekeelne kogukond on väike, ei erine eesti keelt oskavate venekeelsete noorte ja eestlaste väljavaated hea töökoha leidmiseks. Võib oletada, et sellistes piirkondades soodustavad lõimumist tihedamad kontaktid eestlastega koolis ja sõprusvõrgustikes. Seevastu jäävad venekeelsed noored tööturu konkurentsis eestlastele alla Tallinnas, kus keelekogukondade suurus on peaaegu võrdne. Võrreldes eestlastega otsivad väga hea eesti keele oskusega venekeelsed noored esimest töökohta pikemalt ja nende esimene stabiilne töö on madalama staatusega. Eestlased saavad paremad töökohad kõigis majandussektorites. Põhjuseks võib olla tööturu segmenteeritus, mida soodustab ka suurearvuline venekeelne kogukond, ja vähem kasulikud sotsiaalsed

võrgustikud. Põhjusena ei saa välistada tööandjate diskrimineerivaid eelistusi või väga kõrgeid nõudmisi eesti keele oskusele. Olukord on vastupidine Ida-Virumaal, kus eesti keelt hästi oskavad venekeelsed noored on eestlastest edukamad tööturule sisenejad. Seejuures ei ole eelis tingitud ainult vene keele oskusest. Majandussektorite võrdluses selgus, et riigikeelt oskavad venekeelsed noored leiavad kõrge staatusega töö teenindussektoris⁴⁴ või tööstuses, mis on Ida-Eestis olnud pigem venekeelne sektor. Nende noorte edu võib soodustada keelekeskkond ja sotsiaalsed võrgustikud.

Venekeelsete noorte väiksemat edu hariduses ja tööturule sisenemisel saab tõlgendada nii etnilise segmentatsiooni tagajärje kui ka selle taastootmisena. Vene õppekeelega koolide madalam sotsiaalmajanduslik koosseis viitab alaneva mobiilsuse riskile: venekeelsete vanemate nõrgem positsioon tööturul kandub edasi vene õppekeelega koolidesse, mis nõrgendab seal õppivate noorte õpitulemusi. Samuti võib ootustel olla otsustav mõju haridusvalikutele. Eelnevad uuringud on näidanud, et eestlaste ja venekeelse elanikkonna hariduspüüdlused sarnanevad, kuid venekeelsed noored ei ole oma reaalsete võimaluste suhtes saavutada kõrget haridustaset nii positiivsed ja sagedamini tajutakse ebavõrdsust tööturul (Saar 2008; Lindemann 2011a). Seega võib väiksem panustamine edasisse haridusse olla indiviidile ratsionaalne valik. Eesti kontekstis ei aita segmenteerumine etnilisse kogukonda saavutada ülenevat mobiilsust hariduses ja tööturul, vaid pigem osutub „mobiilsuslõksuks“. Tulemused viitavad halvemuste kuhjumisele: venekeelseid noori, kelle eesti keele oskus ei ole hea, iseloomustab sageli madalam sotsiaalne päritolu ja haridustase ning suur tõenäosus asuda tööle madala staatusega töökohal ettevõttes, kus enamik teisi töötajaid on samuti venekeelsed (*uurimus 3*). Siiski ei ilmne doktoritööst ühtset venekeelse elanikkonna alaneva mobiilsuse mustrit. Väga hea eesti keele oskus aitab kaasa edukale struktuursele integratsioonile kindlustades parema haridustaseme ja sujuvama tööturule sisenemise.

Need tulemused ei ole Eestis toimunud keele- ja haridusreformide valguses üllatavad. Keelenõuete ja kontrolli süsteem asutati 1990. aastate alguses, kuid riigi koordineeritud keeleõpe ja integratsiooniprogrammid alustasid palju hiljem (Vihalemm ja Siiner 2011). Ka haridusreformide elluviimine vene õppekeelega koolides on mitmesugustel põhjustel olnud aeglane⁴⁵. Kuigi vene õppekeelega põhikoolides kasvab keelekümbelse programmides osalevate laste arv, siis osaleb selles ikka ainult viiendik õpilasi (HTM 2012) ja nende programmide edukas toimimine on keerulisem Ida-Virumaal (Sau-Ek jt 2011). Lätis algasid reformid üldhariduskoolides varem ja esimese sammuna viidi põhiharidus üle kakskeelsele õppele. Uuringud näitavad, et see on oluliselt tõstnud õpilaste läti keele oskust

⁴⁴ Siin kontekstis tähistab teenindussektor äriteeninduse ja avaliku haldusega seotud töökohti ning sellesse kategooriasse ei arvestatud müügi ja isikuteenindusega seotud töökohti.

⁴⁵ Küsimuseks jääb, mil määral olukord erineks, kui kiire eestikeelsele õppele ülemineku asemel kõrghariduses oleks hariduse reformimine alanud intensiivse keeleõppega madalamatel haridustasemetel. Eesti Integratsioonimonitooringust 2011 selgus, et suurem osa venekeelsest elanikkonnast eelistaks intensiivset eesti keele õpet juba lasteaias (Masso jt 2011).

(Cara 2010; Zepa 2010). Kuigi 2004. aastal tõi Lätis venekeelsete gümnaasiumite üleminek kakskeelsele õppele kaasa tugevad protestid, siis on riigieksamite tulemused kakskeelsetes gümnaasiumites paremad kui läti õppekeelega keskkoolides (Baltic Institute of Social Science 2009). Oluline küsimus on ka, kas Eesti integratsioonikontekst ja haridussüsteem võivad soodustada halvemuste kuhjumist elutee jooksul. Mõned haridusvalikud võivad olla eriti olulised ja viia olukorrani, et üks valik kahandab järgnevaid võimalusi elutee jooksul (DiPrete ja Eirich 2006). Eesti kontekstis võib juba valik eesti ja vene õppekeelega põhikooli või lasteaia vahel omada kaugeleulatuvaid tagajärgi, sest eesti keele oskuse tähtsus järgnevatel haridustasemetel aina suureneb (võimekus õppida kakskeelses gümnaasiumis ja osaleda kõrghariduses).

Kolmes uuritud postsovetlikus kontekstis – Eestis, Lätis ja Ukrainas – erinevad venekeelsete noorte struktuurse integratsiooni tulemused. Kuigi Eesti ja Läti ühiskondade arengutes on palju sarnaseid jooni, võib järeldada, et sotsiaalne distants igapäevaelu tasandil rahvusvahemuse ja enamuse vahel on väiksem Lätis ja puudub suur lõhe eri rahvusest noorte õpitulemustes. Ukrainas on tööturule sisenemine pigem keele kui rahvuse küsimus, sest keelekeskkond toetab jätkuvalt vene keele kasutamist ning venekeelsed noored on esimese töö leidmisel teistest isegi edukamad. Eestis seevastu tähendab rahvusgruppide eraldatus haridussüsteemis ja eesti keele oskuse määrav olulisus tööturul, et struktuurne integratsioon on siiani venekeelsete noorte jaoks katsumus. Seega aitab keeleline jaotumine haridussüsteemis pigem kaasa kogukondade sotsiaalmajanduslikule eraldatusele.

Doktoritöö selgitas struktuurse integratsiooni tulemusi, kuid põhjuslike seoste sügavamaks analüüsiks on vajalikud longituudsed andmed, mis ühendavad indiviidi õpitulemused, haridusvalikud ja tööturule sisenemise. Edasised uurimused peaksid ka selgitama, kuidas hariduse omandamise ja tööturu võimalused teistes Euroopa riikides ja Venemaa lähedus mõjutavad selles doktoritöös arutatud sotsiaalseid mehhanisme, eriti venekeelsete noorte motivatsiooni investeerida keeleoskusesse ja haridusse.

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