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Language acquisition as a window to social integration among Russian language minority children in Germany and Israel

[Spracherwerb als Chance für die soziale Integration russischsprachiger Kinder in Deutschland und Israel]

- Methodological Report -

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Language Acquisition as a Window to Social Integration among Russian Language Minority Children in Germany and Israel

METHOD REPORT

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1. Concept of the study

1.1 Overview

The study examines identity and attitudes and their relationship to language acquisition among language minority children from Russian-speaking backgrounds in Israel and Germany, with a focus on linguistic and social development in early childhood (ages 4-7). The present project considers formal transitions from home to preschool to school as well as informal transitions from family to peers to group identities, and from Russian monolingualism to bilingualism to second language dominance. The study also looks for evidence of positive adjustment as well as signs of children at risk for problems with social integration. The interface of language and immigrant identity in Russian-Hebrew and Russian-German preschool and school children will be explored by looking at cross-language comparisons in two national contexts.

Language acquisition and language use patterns, including lexical, grammatical and pragmatic data, will be used as a window to children's identities, attitudes and prospects for social integration. Identity and attitude measures and behavioral measures of language development will be used to investigate the extent to which Russian immigrant children are likely to integrate into German and Israeli society or maintain Russian linguistic and cultural patterns. Data on the interface of language acquisition and social identity/attitudes are expected to be useful in exploring policy options to help facilitate integration and acculturation of language minority students in both formal and informal Israeli/German educational frameworks.

A range of issues from research in psycholinguistics and social psychology informs the study of social integration of language minority children in Israel and Germany. One has been labeled the home language/school language mismatch, i.e. the fact that the language(s) spoken in the homes of language minority children differs from the academic language and literacy skills needed to succeed in school. That mismatch plays itself out along two dimensions: (a) home languages (Russian) vs. Hebrew/German; (b) spoken vernacular vs. school language.

Spoken language skills, often in a colloquial dialect of Russian, enable communication with parents, grandparents, siblings and peers, but may or may not help in the acquisition of reading and cognitively demanding tasks in Hebrew and German. This issue is also related to the relative level of home language proficiency or literacy needed to succeed in second language acquisition. Despite limited efforts to promote bilingual education in Israel and

Germany, migrant populations of both countries are mostly transitional from bilingual homes to dominance in Hebrew/German.

Immigrant parents who are dominant in a minority language generally speak to their second generation children in their native language, while their children tend to respond in the language of the host society. This well-documented phenomenon usually leads to relatively rapid transition (language shift) over a single generation. It can also contribute to the development of multiple identities (e.g., Alba, 1999; Cameron, 2004; Helbig, 2005; Portes & Schauffler, 1994; Weinreich & Saunderson, 2003), identities which are maintained or modified through early and later childhood and adolescence.

Language and identity are highly complex constructs with multiple dimensions and multiple measures. The two constructs are modular in the sense that they function without reference to each other, but they also interact, primarily in that language reflects different identities. Linguistic structure is traditionally divided into phonology, morphology, syntax, semantics, and lexicon, but investigation of language also includes larger units of discourse and more speaker-based phenomena such as proficiency, use and attitudes. All of this complexity is both a means to and a reflection of social integration. The identity construct includes personal as well as social identity, with a particular focus on ethnic identity (Phinney, 1992, 2003; Walters 2005; Weinreich & Saunderson 2003). The present work considers structural and functional aspects of both constructs, but these constructs differ both in their substance and in the ways they can be investigated.

In contrast, identity has been the domain of the social science and humanistic tradition, with writings in psychology, sociology/anthropology, political science as well as narrative traditions in literature, philosophy, and religion. As a construct, social identity has its origins in personality psychology (Erickson, 1968; Mead, 1964), in social psychology (Tajfel, 1982; Stets & Burke, 2000) and in sociology (Goffman, 1959; Waters, 1994). Unidimensional views of identity, based on classical variables such as social class, gender, ethnicity, nationality, territory, religion, family, and occupation are giving way to more dynamic approaches which allow for multiple, fluid identities. While the present work is informed by all these fields, it is more rooted in the psychology of Erikson (1950, 1968) and sociology of Strauss's (1959) work on naming and interaction, and in Goffman's (1959) symbolic interactionist perspective, which led to a classification of the identity construct into ego, personal and social identities. In a parallel tradition, Berger's (1963; Berger & Luckmann, 1966) concept of identity is based on role theory. It uses George Herbert Mead's notion of self as dialectic between social and personal identity. Parsons' (1977) structural-functionalism treats identity in terms of multiple

roles of individuals in a complex society. These approaches assume a “societal imperative”, whereby society gives rise to, provides meaning for and forms the identity of the individual (Weigert, Tiege & Tiege, 1986).

In the long run, identity is viewed as a bridge from the social context to the child’s first language maintenance and second language acquisition and use. Parents’ educational level, current occupation, and SES are elements of economic identity. Nationality, ethnicity, and religion form another component, which can be labeled political identity. Birth order, gender and family relationships are most relevant to one's family identity, while preschool, social activities and media contacts all contribute to cultural identity. Processes such as migration, urbanization, secularization, and integration/alienation are also reflected in the migrant's composite identity and its influence on child’s socialization patterns.

A second major focus of this project is therefore the role of identity and attitudes in language acquisition, language maintenance and shift. The transition from bilingualism in the home to relative dominance in Hebrew/German follows a different course for immigrant groups in Israel and Germany and for indigenous minorities such as Arabs in Israel. Children from Russian speaking homes become Hebrew- or German-dominant more rapidly than Turks and Moroccans in Germany and Ethiopians and Kavkazim in Israel. Demographic, attitudinal, and socioeconomic factors contributing to these differences will be investigated.

Identity and attitudes have been largely investigated independently of language acquisition patterns, in part due to different theoretical orientations and in part due to methodological preferences in psychology, sociology and linguistics. The present study attempts to examine identity, attitudes and language acquisition in a single, cross-disciplinary framework. From linguistics, language use data and sociolinguistic interviews are combined with experimental probes. From social psychology, attitude and language proficiency measures are gathered via questionnaires/interviews, person perception experiments, and social network techniques.

1.2 Design

The main question guiding this project concerns the extent to which *language proficiency* is related to *ethnic identity* and *social preferences* for monolingual and bilingual speakers of the target languages and *attitudes* to speakers of different ethnic groups and their languages.

One of the keys to successful migration is language proficiency in the language of the host country. The central hypothesis is that increased proficiency, use and interaction with speakers of the host language will be accompanied by a transition in social identity. This transition might take the form of assimilation from home language monolingualism to dominance in the target language. Alternatively, it may proceed from dominance in the home language to bilingualism. The former transition is expected to reflect a more unidimensional form of identity, while the latter would be evidence for multiple identities.

The following research questions were set, building a basis for the main analyses in the project:

Language Proficiency. To what extent will Russian-German and Russian-Hebrew bilingual children perform at or above norm on standardized tests of the target language (German for Germany and Hebrew for Israel)?

Language Proficiency and Ethnolinguistic/Ethnic Identity. To what extent will the language proficiency of bilingual preschool children reflect preference for ethnolinguistic and ethnic labels in a self-labeling task? More specifically, will high proficiency children prefer labels that reflect more integration into the host society than will low proficiency children?

Language Proficiency and Social Preferences. To what extent will language proficiency be related to social preferences for interacting with bilingual and monolingual speakers in different contexts?

Language Proficiency and Attitudes. In what ways are children's attitudes to L1 (Russian) and L2 (Hebrew/German) a function of language proficiency? Do children with high proficiency in L2 show more positive attitudes to Russian or to Hebrew/German?

Language Exposure, Language Proficiency and Ethnic Identity. How well do children with different levels of exposure (less than two years, from 2-4 years, more than four years) to L2 score perform on standardized tests of L2 language proficiency? To what extent is exposure to L2 related to choice of ethnic labels?

Based on a synthesis of research on language attitudes and linguistic interdependence, it is hypothesized that children with negative attitudes to Russian may show slower linguistic development in Russian and better performance in Hebrew/German. And children with strong Russian identities and low levels of exposure to Hebrew/German may develop independent bi-cultural identities. Children's use of grammatical and pragmatic means for adapting to cultural and social norms of native speakers in a variety of communicative tasks is expected to provide a set of linguistic and sociolinguistic indicators of accommodation to and integration into the target societies. Maintenance of native Russian speech patterns and divergence from the target language will be taken as evidence of biculturalism.

1.3 Data collection methods

This project would have benefited greatly from a long tradition of research on the acquisition of social identity in preschool children. Unfortunately, such a tradition does not exist. We benefited to some extent from models of ethnic identity targeting adolescents (e.g. Phinney, 1992, 2003) and adults (Padilla & Perez, 2003), but these tend to ignore the role of language in identity. Language-identity relations have been widely investigated with tasks adapted from social psychology and sociolinguistics (Allard & Landry, 1994; Bourhis & Landry, 2008; Clément, Noels & Deneault, 2001; Lambert, 1990; Sachdev, Arnold & de Dios Yapita, 2006; Taylor, Meynard & Rheault, 1977), but preschool and early elementary school children have not found their way into this literature, in part because of the notion that social identity develops later and in part because questionnaire and survey methods, the methods of choice in this field, are not appropriate for very young children.

Methods of data collection used in the present study, although based on previous research, were adapted or designed specifically for use with very young children. In order to collect data from both target groups, children and their parents, different methods and test procedures have been applied.

1.3.1 Methods of data collection with children

1.3.1.1 First wave

- face-to-face interviews including semi-structured spontaneous conversation (with questions designed to elicit information about family, friends, leisure activities, etc. as well as role plays with 'playground' and 'kitchen' stimulus toys) and person perception tasks in each language;
- sociolinguistic questionnaires as well as a social network task in the language the child is more proficient or feels more comfortable in;
- language proficiency tests as well as language tasks targeting specific linguistic structures in each language.

For the 1st wave of data collection, children were tested and interviewed over 7-12 hours in 12-14 sessions (30-45 min. each depending on child and setting) in order to collect data in both languages. Given that children could not fill out questionnaires by themselves, all the questionnaires and tasks were done in form of the interview and the answers have been

written down by the interviewer. Methods applied for eliciting answers from children are described in more detail in section 1.4.

For each task a separate answer sheet was used, as well as separate instructions for the task. In addition, all sessions were audio recorded to back up the information on the one hand, and to perform linguistic analysis of particular language tasks requiring careful transcription (e.g. narrative tasks, sentence imitation task). All interviewers were native speakers of Russian or Hebrew/German in order to ensure a monolingual modus of the interviews.

1.3.1.2 Second wave

- face-to-face interviews (including short versions of sociolinguistic questionnaires and a person perception task) in each language;
- a reduced number of linguistic tasks in each language.

In the 2nd wave of data collection the tasks and questionnaires were performed in 1-2 sessions per language, focusing on the most significant and interesting measures. Again, all sessions were audio recorded. Given the reduced number of tasks, this time only one answer sheet, including all tasks in a specific order, was used.

1.3.2 Methods of data collection with parents

- face-to-face interviews including semi-structured spontaneous conversation (60-70 minutes long), a social network task and five sociolinguistic questionnaires that could be filled out by the interviewee by him or herself, or with the help of the interviewer.

Parents were interviewed individually in one session that lasted from 90 minutes to two hours. The part of the interview with semi-structured spontaneous conversation was audio recorded while interviewer made brief notes on the most salient points. Almost all parent interviews were conducted in Russian by research assistants who were Russian native speakers. In Israel two interviews were conducted in Hebrew due to parent preference.

1.4 Measures of data collection

Multiple measures were used in order to collect data on social identity and attitudes as well as linguistic data from participants of the project, parents and/or children. The measures are described in detail below.

1.4.1 Social identity and attitude measures

Several tools, adopted from the literature on social psychology of language and pilot research, were designed or adapted for use with preschool and school children to gather social identity data.

Social identity was conceptualized as a complex of (1) ethnic and ethnolinguistic identity, (2) social preferences and (3) attitudes to speakers and languages. The ethnic/ethnolinguistic construct was centered on collective identity; social preferences focused on relational or interpersonal identity; and attitudes were an indirect way of getting at both collective and interpersonal identity. Data on identities and attitudes were elicited indirectly from the speech patterns of interviews and more directly through interview content, sociolinguistic questionnaires, person perception tasks and social network procedures.

Person perception task. Children's social preferences were elicited by means of person perception narratives describing monolingual and bilingual 'friends' at a *Birthday Party* and on a *Desert Island*. The person perception paradigm (Anderson 1996) has been used widely in social and cognitive psychology.
Person perception procedures were used to elicit social identity schemata based on the following patterns:

- High Israeli/German assimilation
- Moderate Israeli/German assimilation
- Moderate Russian maintenance
- High Russian maintenance

The child was presented with a scenario like the following:
Imagine you go on a boat ride with many kids who speak Russian and Hebrew/German. Suddenly pirates attack the ship. The ship sinks but you and another kid are able to get to a desert island. You find out that the other kid speaks [language proficiency: e.g., very good Russian and very good Hebrew/German]. How much do you want to be on the desert island together with a boy/girl who speaks [language proficiency]. (Desert Island)

Then he or she was asked to respond on a 10-point graphic scale described as a *magic ladder* with the end points marked by sad (very unlikely) and happy (very likely) faces. Different variations of narratives were presented to the child (ratings were elicited for monolingual, dominant bilingual and fully bilingual social partners). The child made his or her judgments by placing a figure on a magic ladder. Following judgments for each of the narratives, each child responded to the same narratives in reverse order. In addition to the quantitative ratings, the child was asked to provide explanations for his or her responses. In order to facilitate the conceptualization of different social partners, cards indicating proficiency groups by different colors were used.

Sociolinguistic interview (1C). In the context of a spontaneous speech session, a sociolinguistic interview was conducted, asking children to describe a day in preschool/school, family, friends, activities (weekday or weekend routine), favorite toys and games, celebration of holidays in the preschool/school; and some samples of linguistic knowledge in L1 (Russian) and L2 (Hebrew/German), such as naming of seasons, days of the week, or months.

Social network task (3C). Social network research in bilingual settings has made use of both actual language behavior collected via ethnographic observation (Li Wei, 1994) and reported language use via questionnaires (Milroy & Pong, 2000). The social network paradigm has provided scalable data for looking at language choice and social variables including age, generation, and gender. Data on social networks and language use offers a way to scaffold demographic information onto interactional data about the relationship between children and their interlocutors. In a social network task involving reported language use in the framework of sociolinguistic interviews, the number, density and importance of social contacts was examined. The social network paradigm allowed information about language use to be placed in the background, away from the center of attention. In this way, participants could make uninhibited responses to questions about social contacts with the data about language use provided almost incidentally.

The social network procedure was simplified and adapted for use with (pre)-school children. The language and frequency of use were determined via circles of different colors and different sizes. The procedure involved:

a. eliciting the names of immediate family members (mother, father, sisters, brothers, grandparents), other relatives (cousins, aunts, uncles), friends outside (pre)-school, (pre)-school friends, neighbors (children and adults) and other social contacts;

b. naming the language (Russian/Hebrew/German) spoken with each person named;

c. determining the frequency the child uses each language with each person;

d. the child naming the person who is most important and least important for him or her and then rating that person's importance on a graphic scale.

Sociolinguistic questionnaires. Sociolinguistic questionnaires (4C-8C), conducted with children in the form of an interview, provided data about their language preference as a function of setting (home, neighborhood, school), listener (parents, siblings, peers), and topic (language learning experiences, television, computer, leisure activities, etc). The following sociolinguistic questionnaires were conducted with the children:

Language preferences (4C). The child's language preferences are assessed by open-ended and forced choice questions as well as two rating scale items related to language preferences in general (Russian versus Hebrew/German), and preferences in specific situations (what language is used when the child is e.g. happy, sad, angry), e.g.:

Which languages are spoken at your preschool/school? (open-ended)

Which language do you LIKE to speak most? (forced choice)

How much do you like to speak Russian? (rating scale)

What language do YOU use to count things? (specific situation)

Language attitudes (5C). The child's attitudes to Russian and Hebrew/German were assessed by eight items (four for each language) about *how important* it is for him or her, and for his or her parents, siblings and friends to speak Russian or Hebrew/German. Two additional items assessed attitudes to codeswitching:

While you are speaking Russian, how often do you switch to Hebrew/German?

It is OK to switch to Hebrew/German while speaking Russian. How much do you agree?

Ethnolinguistic identity (6C). The items in this interview were adapted from Allard and Landry's (1986, 1994) Beliefs on Ethnolinguistic Vitality Questionnaire (BEVQ) and based on Tajfel's (1982) theory of social identity and group relations.

For each of five identity labels (*Russian, Israeli, Jewish, "Ivri", "Ole hadash*" (new immigrant) in Israel and *Russian, German, Jewish, Russian German, Immigrant* in Germany) the child was asked to make ratings on a graphic scale to the following questions:

a. I am [identity label]. How much do you agree with that?

b. How much do you like being [identity label]?

c. When I grow up, I want to be [identity label]. How much do you agree with that?

Language use (7C). Language use was investigated with 14 items based in part on Allard & Landry (1994). Eight items focused on language use with different interlocutors (father, mother, sisters/brothers, grandparents, friends, neighbors); three items targeted different situations (activities, synagogue/church and TV programs). Responses are scalar, and the child responded separately for each language.

Self-rating of proficiency (8C). Overall proficiency was assessed by two open-ended items (*What languages do you speak? Which language do you speak best?*) and four items eliciting self-ratings about speaking and understanding the two languages. Ten additional items for each language were used to assess proficiency situationally: asking for a toy, asking for help getting a book on a high shelf, counting children in the preschool/school, talking on the phone, telling someone how to play a game, telling about an argument with a friend, describing family members, telling about a cartoon, telling what happened in preschool/school, and telling about a dream. Pictures displaying different situations helped to draw the child's attention to a particular situation.

Direct questions. Another way of eliciting children's attitudes to speakers and languages including speakers of two other languages largely present in the host country (English and Turkish in Germany, English and Arabic in Israel) was to ask children directly:

How much do you like people who speak English?
How much do you like people who speak Arabic/Turkish?
How much do you like people who speak Russian?
How much do you like people who speak Hebrew/German?
How much do you like to speak Russian?
How much do you like to speak Hebrew/German?

Also, children's "fighting" experience with Russian and/or Hebrew/German speaking children was considered using questions such as:

Have you ever fought with another boy/girl? Tell me about a fight with a boy/girl who speaks Russian. Tell me about a fight with a boy/girl who speaks Hebrew/German.

In addition to the questionnaire on ethnolinguistic identity, children were asked to give themselves ethnic labels:

What do you say when you are asked who are you?

A parent ***sociolinguistic interview*** as well as a ***social network task*** and ***sociolinguistic questionnaires*** were conducted to elicit background information about the child and his or her family, transitions from home to preschool, from preschool to school, and from Russian to Hebrew/German, as well as to corroborate the information elicited from the child.

a. The ***sociolinguistic interview*** (1P) took the form of a semi-structured spontaneous conversation. During a short introductory conversation, parents were asked questions about their child's age, place of birth, the number and age of siblings, parents' age, age on arrival in Israel, marital status, country of origin, professional occupation and load, languages spoken at work and the family's religious affiliation.

The interview continued with a discussion of the following topics: information about the child's language learning (first exposure to L1 (Russian) and L2 (Hebrew/German), transition from L1 to L2); his or her family (siblings, grandparents); languages spoken and language policy at home; major transition periods (from home to preschool, from L1 preschool to L2 preschool, from family to peers, from preschool to school); friends and peers; everyday activities (weekday/weekend routine, favorite toys and games, TV preferences, favorite songs, evening circles and activities, attendance of concerts or plays); celebration of holidays; some samples of linguistic knowledge in L1 (Russian) and L2 (Hebrew/German) such as naming of seasons, days of the week, and months.

At the end of the conversation, the interviewer, with the help of the parent, filled out summary charts with information about the child's language history and enrollment in different educational frameworks and contacts with the Old Country (OC).

b. A ***sociolinguistic network task*** (3P) followed the format of the similar task designed for children (3C). Parents were asked to name the child's social contacts and indicate the languages spoken with each person as well as the degree of the child's closeness with that person.

c. ***Sociolinguistic questionnaires*** (4P – 8P) were designed based on the available sociolinguistic questionnaires and followed the format of the sociolinguistic questionnaires designed for children (4C-8C). They targeted the assessment of the child's identity, language preferences, language attitudes and behaviors, frequency of use of L1 (Russian) and L2 (Hebrew/German), and linguistic proficiency of their children in both languages, focusing on the parent's perception of the child.

1.4.2 Linguistic measures

Five sets of tasks were used to target linguistic features: standardized tests, discourse tasks, morphosyntactic tasks as well as lexical and phonological tasks. The tasks were designed to target structures which were similar as well as contrastive between Russian and the target language (Hebrew/German). Tasks were adapted (not translated) to each of the analyzed language according to the relevant parameters.

Standardized tests. Language was assessed in terms of performance on standardized tests in the target languages: language screening for preschool-age children in German and a language test in Hebrew. The motivation here is policy-oriented, since these are the standards by which minority children are enrolled in or rejected from participation in mainstream educational frameworks. The Hebrew Language Test (Goralnik, 1995) consists of a range of subtests for vocabulary, sentence repetition, comprehension, expression, pronunciation and story-telling. The German Test (Grimm, 2003) has two subtests, one involving non-word repetition and one sentence repetition. The standard scores on these tests were used as a measure of development for comparison of children who had attained lower and higher language proficiency.

Discourse tasks. The overall approach for eliciting language acquisition data is to use natural and quasi-natural communicative tasks. Individual sessions included:

a. ***semi-structured spontaneous conversation*** targeting to elicit naturalistic narrative data with stimuli designed to elicit information about friends and leisure activities.

b. ***narrative data*** was collected using two familiar and two unfamiliar stories. The familiar stories are *Goldilocks and the Three Bears* and *Little Red Riding Hood;* the unfamiliar stories consisted of six wordless black and white line drawings each, one about a cat which depicts a mother bird, her chicks, a cat and a dog (*Cat Story*, designed by Hickmann, 2003) and one about a fox, a fish and a crow (*Fox Story*, designed by Gülzow & Gagarina, 2007). Three narratives are elicited from each child for each language, two familiar stories and one of the two unfamiliar stories. Narrative data had to be audio recorded and transcribed in the *chat* format using CHILDES (data base for child language narrative data) conventions, then coded and analyzed for linguistic information**.**

c. ***interactive role playing*** and free play with a uniform set of toys (kitchen/playground situations).

Morphosyntactic tasks. Elicited imitation (Armon-Lotem et al. 2005, 2006) included three subtasks (*Sentence Imitation/Preposition*, *Sentence Imitation/Verb Inflections* and

Imitation/Complex Syntax) targeting morphosyntactic structures as well as prepositions and structures found to be particularly difficult for language minority children. Stimulus sentences ranged from 4-10 words. For verb inflections, there were 40 items in Russian performed in both Israel and Germany; 39 items in Hebrew. For prepositions, there were 35 items for Russian and 30 for Hebrew in Israel; 48 items for each language (Russian and German) in Germany. For complex syntax, there were 20 items for Russian and Hebrew. Elicited imitation targeting verbal inflections and complex syntax were not performed in German, since similar measures were used in the standardized test.

Sentence completion (Dromi et al. 1999) targeted verb inflections (completing a sentence with correct verb form) in story contexts. In Israel, the Russian stimuli involved 6 stories, 16 different verbs with various linguistic features and yielded 133 items per child for use in Israel. The Hebrew stimuli included 3 stories, 11 verbs, 45 items. In Germany, the Russian stimuli included 3 stories, 10 verbs 70 items. The German stimuli included 3 stories, 18 verbs, 38 items. For Russian-Hebrew speaking children the focus was initially placed on the past tense in Hebrew, where person, number and gender are all marked, while in Russian the scope is wider, in order to include aspectual differences in synthetic vs. analytic constructions, which pose a problem for second language learners (Armon-Lotem, Gagarina & Gupol 2006). For Russian-German speaking children the focus in German was placed on the present (3rd person) and past tenses (targeting the participle) where the use of appropriate regular and irregular verb forms requires specific knowledge.

Lexical tasks. Verb-noun naming task (Kauschke 2007), originally created for German, was adapted to Russian and Hebrew. The bilingual lexicon is often distributed between the two languages, so that children may know some words only in one language, and not in the other. Thus, in order to have an overview over the children's lexicon, this kind of task should be conducted in both languages. This task included 36 items targeting nouns and 36 items targeting verbs.

Phonological tasks. Nonword repetition (NWR) was primarily developed for Hebrew and then adapted to Russian, which lacks standardized tests for language development, creating a new measure of language performance allowing for cross-linguistic comparison. The design included 14 categories of stimuli, 48 pseudo-words in total, which aim to test phonological and morphological ability in each language. Words varied in length, in presence of consonant clusters and in degree of similarity to the target language.

Additional linguistic measures. In the framework of the study several additional tasks were designed, e.g. ***phonological awareness, case*** or ***RAN (rapid automatic naming)***. These tasks are not presented here in detail as they were not part of the main sociolinguistic study.

The master versions of the sociolinguistic interviews and questionnaires for children and parents were prepared in English. Other sociolinguistic tasks have no English version as Russian language was also a language of communication in the project and could be used as "master" for generating further country-specific versions in Hebrew and/or German. The variety of questionnaires and tasks used in the study, which exist in several versions depending on type of task, country, language, target group, age of children, wave, etc., are presented separately in the accompanying documentation. The complete list is given in the appendix. Answer sheets and descriptions of language tasks are not included in the documentation on sociolinguistic measures due to their purely linguistic nature. The most relevant data used for sociolinguistic analysis is presented in the form of excel and spss tables, together with sociolinguistic data.

2. Sampling

2.1 Sampling

To meet the sociolinguistic goals of the project, the sample had to be carefully selected according to strict criteria (presented in 2.1.2) and to be continuously tested over a long period of time (up to several months). This resulted in a relatively low number of participants compared to sociological surveys, but a very high number of participants compared to other linguistic studies. To be more precise, this project was the biggest study ever conducted on Russian-German and Russian-Hebrew bilingual children. The overall sample size was 90 children participants aged 4-7 and 90 adult participants (parents of the sampled children) in each country.

In Germany all participants had to be sampled in Berlin (the location of the German project team), taking into consideration the testing conditions and a very limited number of interviewers. Given the size of the city and the high number of Russian speakers spread over the city in general, first the neighbourhoods with large Russian-speaking population had to be identified. The sampling was then conducted using preschool and school registers provided by the local school administration (*Berliner Senat*) on the internet as well as through local associations offering courses and activities for Russian-speaking children.

In Israel, where the project team was located in Ramat-Gan, participants had to be sampled in the greater Tel-Aviv area, which includes several nearby cities, such as Petach Tikva and Netanya, with a high number of Russian-speaking residents. However, the sampling procedure was different from in Germany, as testing permissions had to be obtained from the Ministry of Education first. This procedure gave researchers the opportunity to contact regional inspectors, who had direct access to school statistics, and could advise on preschools and schools with Russian-speaking children.

2.1.1 Transitions

Another aspect of sampling was accounting for transitions of sampled children. Two types of transitions were of greatest interest for the present study:

1 – ***social setting transition*** from preschool to school (to be compared with home to preschool transition);

2 – ***sociolinguistic transition*** from Russian Maintenance to Bilingual/Bicultural and/or Israeli/German Assimilated identity.

Both presented types have to account for differences in transitions between the countries.

In Israel, where monolingual Russian preschools are widespread, there are two possible transitions from home to preschool:

1 – transition from a Russian speaking home to a Russian preschool at age 2-3, then to a Hebrew preschool at age 4-5, or directly to an obligatory Hebrew preschool at age 5-6. The rationale for such a decision from parent's point of view is to ease the child's social integration in preschool by providing a familiar language environment first. Many Russian preschools have Hebrew classes which provide children with basic linguistic (vocabulary and grammar) and cultural knowledge (songs, movies, books), but these preschools do not provide the necessary conditions for the acquisition of Hebrew.

2 – transition from a Russian speaking home directly to a Hebrew preschool. In this case, transition to Hebrew occurs earlier – at age 2-4.

In Germany, more precisely in Berlin, which contains German monolingual and Russian-German bilingual preschools and schools (but no Russian monolingual ones), four possible transitions could be observed. Although they are similar on the surface to the Israeli ones, they are essentially different in terms of age of entrance to the preschool and language exposure:

1 – transition from a Russian speaking home to a Russian-German bilingual preschool, where the child is equally exposed to both Russian and German at age 1-3; then to a German preschool at age 4-5 or directly to a German monolingual school at age 5-6.

2 – transition from a Russian speaking home to a Russian-German bilingual preschool, at age 1-3; then to a Russian-German bilingual school at age 5-6, providing continuous exposure to both languages in academic and family environment.

3 – transition from a Russian speaking home to a German monolingual preschool at age 1-3; then to a Russian-German bilingual school at age 5-6 after as their exposure to the Russian language in the family environment is not adequate for maintenance of Russian language.

4 – transition from a Russian speaking home to a German monolingual preschool at age 1-3 and then to a German monolingual school at age 5-6. In this case Russian is maintained if at all through after school activities in Russian and/or exclusively through family environment.

In all four combinations, Russian-speaking children in Germany are exposed to German earlier than Russian-speaking children to Hebrew in Israel. As the study was focused primarily on language minority children who are exposed to one language in the home and receive their primary exposure to German/Hebrew at preschool/school, this fact caused

differences in the selection criteria applied in each country, and the composition of age cohorts (the number of children per age group).

The 1st wave of data collection in both countries focused on both formal social setting transitions, from home to preschool and from preschool to the 1st grade of the elementary school. For the 2nd wave, taking place after an interval in 6 months at the earliest and up to 9 months, those children who made the next transition from preschool to the 1st grade were to be followed up, with a subset of the tasks which emerged as most predictive in the 1st wave.

2.1.2 Selection criteria

The intended sample were selected according to the following basic criteria: data was to be gathered from Russian-Hebrew bilingual immigrant children in Israel and Russian-German bilingual immigrant children in Germany, preferably half male and half female, from each of three age cohorts (4, 5, and 6-year-olds) in two transitional periods, from home to preschool or from preschool to school; additional data was to be gathered from the children's parents. However, such criteria were not sufficient for conducting a study on bilingual children.

In the research on bilingual language acquisition there is a whole range of factors which determine the process and the pace of language development and must be taken into account. The age of onset for both languages, quality and quantity of input, migrant background and native languages are considered to be the most important ones (Hamers & Blanc, 2000; Rothweiler, 2007, Reich, 2008; Meisel, 2009). Therefore, in addition to the basic criteria mentioned above, further selection criteria narrowing down the sample had to be applied in the project, both from the linguistic and sociolinguistic prospective.

Accounting for the differences between countries, the final criteria for the sample selection were fixed as follows:

1. preschool / 1st grade elementary school children
2. 4, 5 or 6 years old (30 children per age group)
3. Parents are Russian native speakers (first generation immigrants)
4. Parents speak Russian at home with their children
5. Russian input from birth on
6. Hebrew/German acquired in Hebrew/German dominant preschool (minimum 60% monolingual Hebrew/German-speaking children)
7. Initial exposure to Hebrew/German between 1 and 3 years old (start of attending Hebrew/German preschool): early sequential bilinguals
8. Length of exposure to Hebrew/German for at least 1 year
9. No severe health problems or diagnosed language disorders
10. Children should be able to communicate in both languages

Table 1: Sample selection criteria

In order to fulfil the sample criteria presented in Table 1, a complex multi-level selection process has been applied. The selection process included three steps based on:

1 - short questionnaire filled out by parents together with the consent form which clarified most of the selection criteria (1 to 9) and allowed parents to make a decision on recruiting for participation in the project;

2 - language performance during the first sessions (including spontaneous speech and language proficiency tests) clarifying whether the child was able to communicate in both languages (10); those children who showed very low performance in one of the target languages (Russian or Hebrew/German) to the extent that they could not understand and perform language and sociolinguistic tasks in this language were excluded from the project. Several children refused to talk in one of the languages; they too had to be excluded from further investigation.

3 - additional information obtained from parent interviews later on (e.g. different language history which did not match the project criteria) as well as analysis of linguistic tasks (e.g., children at risk for language impairment) which could influence selection of participants for the final data set.

All children from the 1st wave who made the next transition, from preschool to school, as well as all school children from the 1st wave, were selected for the 2nd wave in order to obtain longitudinal data and to account for changes due to transitions.

2.2 Target groups

Migrant groups from different countries of origin can significantly differ in factors relevant for their integration into the host society (Nauck, 2000, 2007; Konsortium Bildungsberichterstattung, 2006).

Therefore, the present study aimed to collect data from an extensive homogeneous sample of immigrant children and their parents, Russian-speaking participants with ethnic-German backgrounds in Germany and participants with Russian-Jewish backgrounds in Israel, for cross-national comparison. The affiliation with one of these ethnic groups was defined based on three main criteria:

1 - parents are first generation immigrants to the host country;

2 - their background is either Ethnic German in Germany or Jewish in Israel;

3 - their mother tongue is Russian.

Children's place of birth or nationality was irrelevant provided they grew up in the host country prior to sampling and met other selection criteria.

In addition to the main target group in Germany, a small subgroup of Russian-speaking Jewish immigrant children was sampled in order to be compared to the respective subgroup of Jewish immigrant children in Israel.

2.3 Samples

Different sampling procedures were applied in Israel and Germany due to the differences in the permission process, access to governmental statistics, time frames as well as project manpower.

2.3.1 Israel

In Israel, children were selected from 19 preschools in three cities. Following written approvals from the office of the Chief Scientist at the Israeli Ministry of Education, regional inspectors were contacted for their written approval. With these approvals in hand, contact was made with inspectors from each city in the Greater Tel-Aviv area, including Petach Tikva and Netanya, who recommended several preschools which might fit project criteria. Each of the 13 identified preschools was contacted and visited to get to know the preschool teacher and the children.

Consent forms were then sent to potential participants. After one week, calls were made to determine how many consent forms were returned and how many were not relevant because the child did not fit project criteria. Preschool teachers were a great help staying in contact with the project team and regularly reminding parents to return consent forms. Parents whose forms were not returned were contacted to understand the reason for lack of consent. After a phone call/meeting, most parents gave permission for their children to participate.

In total, 392 consent forms were distributed, and 120 parents agreed that their children could participate in the study. Of these children, 79 children were selected based primarily on criteria involving exposure to Hebrew; others being excluded due to atypical development (e.g., Language Impairment, ADHD) or lack of knowledge of Russian.

In order to recruit school children, basically the same procedure of identification and matching to the project criteria was applied. However, the permission process turned out to be more complicated and time consuming, so these children could be tested only during the 2nd wave testing period.

2.3.2 Germany

In Germany children were sampled from 22 preschools and schools. Permissions from preschool and school directors were required in order to test children in their locations. In several cases permissions from so-called independent operators (*freier Träger)* were required as well. Initially, over 150 preschools in neighborhoods with high percentages of Russian-speaking immigrants were contacted via phone to determine whether they had children who met the project criteria. Over 20 schools were contacted using the same procedure. In addition, school statistics obtained from the local school administration (*Berliner Senat*) were used to identify schools with a high number of Russian-speaking children. 35 preschools and schools were selected for further cooperation. However, not all of them could participate in the project due to lack of parental consent or because all potential participants did not meet the selection criteria.

To reach more children and convince their parents to give consent for participation in the project, more importance was placed upon personal contacts with preschool/school teachers and parents to encourage their cooperation. Sometimes those parents who had already given their consent helped to convince other parents from the same preschool/school to participate. Research assistants visited preschools and schools to present the project to the

preschool/school administration, to talk to teachers and parents and to investigate testing conditions.

In total, 225 consent forms were distributed, and 174 parents agreed that their children could participate in the study. Approximately one third (61 children) did not meet the three main criteria set for the linguistic background (home language – Russian, onset of German acquisition before or around age three, presence of at least 60% German-speaking children in the preschool). Testing of 23 children was discontinued due to very low performance during the first sessions, change of residence, or refusal to cooperate. In total, 90 children remained in the project and were tested for the majority of sociolinguistic and/or linguistic tasks.

Sampling of the additional subgroup of Russian-speaking immigrant children with Jewish background in Germany was scheduled for the 2nd wave and targeted children who had recently undergone the transition from preschool to school in order to be compared with the respective subgroup of Jewish immigrant children in Israel. Despite many efforts to find children who would meet the criteria of this particular subgroup and to convince parents to give the consent on participation in the project, the response was very limited, so only a few children (N=6) could be tested.

2.4 Adjustment of samples

Due to the high drop-out rate, more children who met the requirements of the project had to be found. The sampling procedure was effectively expanded using a *snowball system*. Teachers from participating institutions were asked for further contacts, and parents of already participating children were asked to circulate information about the project to their Russian-speaking friends in other neighbourhoods. Organizations giving courses in Russian and offering various after-school activities for Russian-speaking children were searched for children who would meet the project criteria and asked which preschools and schools they attended, so that more preschools/schools with Russian-speaking children could be identified.

3. Field work

3.1 Pretest

3.1.1 Pilot phase

The pilot phase of the project took place between July 2007 and January 2008, beginning first in Israel and later on in Germany. The pilot test battery was carried out on 4-6 years old children in several preschools in Israel and two preschools in Germany. The same methods of data collection were used as planned for the main study (described in section 1.3). The conditions in which the pilot tests were conducted, i.e. setting, location, duration of the interview, etc. were for the most part similar to those of the main survey. The pilot phase included several linguistic tasks as well as sociolinguistic questionnaires and an interview intended to be used in the main study. Parallel to the pilot phase new tasks were designed.

The main goals of piloting were as follows:

- to check the effectiveness and feasibility of certain sociolinguistic and language tasks which were designed for very young children for the first time, and had to be tested;
- to check cross-linguistic comparability of language tasks as well as of country-specific sociolinguistic variables;
- to check testing conditions in preschool/school/home, children's motivation and attitudes towards specific tasks;
- to account for attitudes of preschool/school teachers and parents towards the participation in the project in order to improve the cooperation between participating sides.

3.1.2 Interviews

In general, the data collection conducted during the pilot phase with children did not yet correspond to the final form of data collection, as different tasks and questionnaires were presented with some variations in training and/or testing procedures so that their feasibility could be tested together with the linguistic or sociolinguistic rational.

No parents or other relatives were present during the pilot testing. However, preschool teachers were very interested in the project tasks and in children's performance on them, so in Germany, in a few cases a teacher was present during one or two sessions as a silent observer.

3.1.3 Interviewers

3.1.3.1 Recruitment of interviewers

Interviewers were in fact research assistants recruited mostly for the whole duration of the project as their task was not only to conduct interviews and collect the data, but actively participate in all stages of the project, from sampling of participants and preparing the test battery to processing and analysing the data. They had to satisfy criteria such as:

- high educational background (university or doctoral students);
- being native speakers of the language which they were testing in (Hebrew, German, Russian) as well as being proficient in English; Russian native speakers had to also be proficient in the country's national language (Hebrew or German);
- experience in working with young (preschool/elementary school) children;
- linguistic attainment.

The total number of research assistants was different in Israel and Germany. In Israel it varied from 10 to 12 as a number of research assistants were involved in the project as part of their bachelor or master studies, only a few research assistants were permanently employed. In Germany, 4-5 research assistants including two doctoral students were employed permanently for the duration of the project.

3.1.3.2 Training of interviewers

For the most part, the same research assistants in both countries piloted and conducted the main study, at least the 1st wave. Several training sessions during the pilot phase and before the start of the main data collection were performed in order to prepare research assistants for the field work. The trainings took place in Israel and Germany separately as well as during joint project meetings and via phone or mail.

As the pilot testing in Israel and Germany was conducted at different times (in Israel first, then in Germany), one of the German research assistants had an opportunity to be extensively trained in Israel, participating personally in testing and discussions. Then her field experience was discussed with other project members, the observed differences tied to the different settings and testing conditions in Israel and Germany were outlined and precise guidelines for both countries were elaborated in order to train other research assistants accordingly.

Trainings involved data collection and processing the data (preparing the data for further analysis). Separate trainings were performed for specific linguistic tasks, e.g. eliciting narratives, sentence imitation, sentence completion, interactive role-playing situations, and social identity tasks, e.g. person perception experiments, sociolinguistic interview, questionnaires on language attitudes and use, ethnolinguistic identity, and social networks.

Several special trainings were devoted to transcription and coding of spontaneous speech and narrative data and conducted on-going in both countries. The German side provided expertise and prepared guidelines for transcription and coding in German and Russian for the project needs based on the general transcription rules in CHILDES.

After the piloting phase additional trainings were conducted on final versions of modified tasks as well as on new tasks to be performed in the main study. Precise written instructions for performing all linguistic and sociolinguistic tasks in both countries were elaborated.

3.1.4 Results

After the pilot phase, it became clear that most of the tasks should be revised and modified for the main study. Several sociolinguistic tasks proved to be rather difficult for the youngest children to understand, e.g. tasks bound to person perception and ethnolinguistic identity. Therefore modification was necessary: some of the tasks were shortened and simplified only for younger children; the others were redesigned for all age groups in order to become more comprehensive and feasible. As far as language tasks were concerned, some of them had to be exchanged or removed for better comparability between the languages; several new tasks were designed for use in the main study.

The experience in working with children in preschools as well as with preschool personnel and parents was also of great interest. Here, several differences between countries emerged and were taken into account for conducting data collection. For example, in Israel children seemed more open and used to contact with unfamiliar people, while in Germany they were more reserved and had difficulties in starting to communicate with the interviewer. As a result, in Germany children preferred to deal with the same interviewers through the whole period of testing. For additional motivation children were given small presents, e.g. stickers at the end of each session.

Contact with parents could be established in Germany almost solely through preschools (less personal access) while in Israel they could be easily reached by phone (more personal

access), with numbers provided by the preschools. Therefore, for the main data collection in Germany, permissions to call parents (e.g. for arranging an appointment when the child was not at school due to illness) were secured directly on the consent form.

3.2 Main Study

3.2.1 Data collection

The overall design combined cross-sectional (1st Wave) and longitudinal (2nd Wave) data collection. An obligatory break of 6 to 9 months between waves ensured the development of linguistic skills and transitional changes.

The 1st wave of data collection took place bi-weekly from November 2007 to July 2008 in Israel and in January-July 2008 as well as September-November 2008 in Germany. Given the limited number of interviewers and the extensive testing, not all children were interviewed and tested at the same period of time in the 1st wave, but rather a group of children was continuously tested during two to three months, then another group of children, until all groups were completed. Thus, 2nd wave testings were scheduled individually for each child in reference to his or her 1st wave testing period.

The 2nd wave started later than planned as the 1st wave couldn't be accomplished in the planned interval due to sampling problems, and because of the obligatory break between the waves. In Germany the 2nd bi-weekly data collection took place between March and July 2009; in Israel it took place in the period from September to December 2008 (the 1st wave was completed earlier than in Germany).

More detailed information about how exactly the data collection was performed in the 1st and 2nd wave respectively is given below.

3.2.1.1 First wave

***Child interview/tests*.** In the 1st wave six to seven sessions of data collection in each language included the following tasks (described in section 1.4 in more detail):

1 - discourse tasks involving (a) spontaneous conversation; (b) narratives based on familiar vs. unfamiliar picture stimuli (*Goldilocks and the Three Bears/Little Red Riding Hood* vs. *Cat/Fox*); (c) interactive role playing (kitchen/playground situations);

2 - standardized Language Tests in Hebrew and German;

3 - lexical tasks: verb-noun naming;

4 - linguistic structure tasks probing verb inflections and prepositions elicited via sentence completion and sentence imitation;

5 - additional linguistic tasks: non-word repetition, rapid automatic naming (RAN);

6 - social identity data from ethnolinguistic labels, social networks, language attitudes and preferences as well as language proficiency data from children's self-reports.

Sessions took place in preschools or schools once a week for each language (twice for both languages) on average. In Germany, school children were tested in the framework of after-school care club (*Hort*) so that their participation in the extensive testing would not affect the school curriculum.

Each session was compiled in such a way that several tasks could be performed during one session. Despite the playful design of all tasks, which were presented as games, some of them were more difficult than the others, especially for preschool children. Moreover, most of tasks had to be performed in a certain order, with some variations admitted. Thus, the order of tasks was fixed in advance, but more difficult and less difficult tasks complemented one another in one session as far as possible. It was attempted to complete all tasks scheduled for a session. Therefore, the duration of a single session could vary from 30 to 45 minutes, depending on the child's motivation and age, difficulty of tasks as well as setting (preschool or school).

As far as the order of sessions and tasks is concerned, it had two different versions, one for preschool children and one for school children, based on the observation that preschool children need more time for training on specific tasks and become tired and less focused after 20-30 minutes of testing, while school children could be tested up to 45 minutes and could handle more tasks during that time.

Parent interview. Individual interview sessions were performed with one of the parents (mostly mothers). The sessions lasted 90-120 minutes and included a semi-structured spontaneous conversation (60-70 minutes long), a sociolinguistic network task and sociolinguistic questionnaires (all described in section 1.4), which could be completed together with the interviewer or alone. The meetings were held in the interviewee's homes, at their workplaces, at project institutions or other locations of parents' choice (school, cafés, etc.). In Germany, interview arrangements were made in such a way that research assistants preferably interviewed parents of the children they personally tested. This allowed i.a. more interaction between parents and interviewers in exchanging information about the children. In

Israel, all parent interviews were conducted by an external interviewer who did not participate in collecting the data from children.

The number and kind of topics discussed in each interview were relatively similar, as determined by the sociolinguistic interview protocol used as a basis for all interviews. In order to impart informality to the interview session, the questionnaire was not shown to the participants. Nevertheless, all major issues listed in the protocol were attended to. The interview was audio recorded in order to back up the obtained information. In addition, the interviewer made brief notes on most salient issues in the course of the conversation.

3.2.1.2 Between waves

In order to maintain cooperation of participant for the 2nd wave of data collection, the following steps were taken:

1 – Following completion of the parent interviews, a gift voucher (in Israel) or financial reward (in Germany) as well as a thank-you letter were given to each parent whose child participated.

2 – Regular contact was maintained with the preschool/school teachers throughout the project and during the break following the 1st wave of data collection.

3 – Parents who requested more specific feedback regarding their child were called and given an opportunity to ask questions.

3.2.1.3 Second wave

For the 2nd wave of data collection, those linguistic indicators which best reflect social identity and are most predictive of social integration were taken into account. Based on analysis of individual and clustered data, a subset of linguistic performance tasks and social identity measures was selected for testing in the 2nd wave of data collection.

One to two sessions (30-45 min. each) in each language took place at the school or at the interviewee's home once a week (two total sessions per week) in the same manner in which they were conducted in the 1st wave. This time, children reacted more promptly and attentively than during the 1st data collection, probably due to the shortened questionnaires and the smaller number of tasks. They had also become older and were already acquainted with tasks.

For the 2nd wave, transitions involving social setting focused on changes from preschool to school, allowing a comparison with the home to preschool transition in the 1st wave of data collection. Sociolinguistically, transitions of children showing Russian Maintenance or Bilingual/Bicultural identity in the 1st wave were examined. More specifically, a subgroup of children who attended Russian-speaking preschools became a further potential target for the 2nd wave of data collection.

3.2.2 Interviews

In Germany, another person was very rarely present during the interview. In some cases a preschool teacher or a parent was present during the first session for supporting and encouraging the child to participate, but their presence was mostly unnecessary. Several sessions were conducted in the presence of a visiting Israeli research assistant. The role of any present person was only observation.

In Israel several interviewers could be present at particular sessions as part of the training process: each interviewer was trained in preschools for all 8 sessions individually with an experienced interviewer. Interviewers were all accompanied by a trained research assistant until they performed all tasks as instructed. Several sessions were conducted in the presence of a visiting German research assistant.

In Israel, in parental interviews conducted at participants' homes or in cafeterias, public gardens, etc., children participating in the project or their siblings and/or other relatives (e.g., spouses, grandmothers) were sometimes also present, but they did not participate in the interview. In Germany there was only one case where both parents were present and actively participated in the interview.

During the 2nd wave of data collection, there was one case in Israel where a mother wanted to stay while the child was tested. Interviewers got instructions on how to deal with such situations, so that it did not repeat itself. However, dealing with parents was an important part of the 2nd wave since the data was collected at participants' homes.

3.2.3 Interviewers

The recruitment and qualification of interviewers has already been described in section 3.1.3. Presented here are the most important points pertaining to the data collection during the main study and to child and parent interviews.

Child interviews/tests. Given the small number of research assistants on the German side of the project and for better effectiveness, each of them was responsible for a number of children in certain locations. Thus, research assistants were trained to perform all tasks (in one language) with children and could attend to the same children through both waves. In other words, each child had contacts with two research assistants who tested him or her in one language each for the entire duration of testing, in both waves. Only in exceptional cases were research assistants exchanged (e.g. due to organizational problems, or recruitment of a new research assistant).

In Israel, where more research assistants were involved in testing, the labor was divided differently. Most of the children were tested by several interviewers who were responsible for specific tasks. As a result, sometimes children were tested by two or three research assistants in one language. However, it was clarified in the piloting phase that this way of testing wouldn't affect children's reactions as they were used to interacting with several adults in the preschool/school, and the atmosphere of testing was more family-like rather than formal.

Parent interviews. All parental interviews were conducted in Russian by research assistants who were native speakers of Russian. In Israel a postdoc fellow who elaborated the parent interview for the project was also recruited specially for conducting all parent interviews. In Germany the interviews were conducted by two research assistants (one master student and one doctoral student) who had previously tested the children. As the interview itself was designed in Israel, the guidelines for the interview procedure were provided by the Israeli side and research assistants in Germany were trained accordingly.

3.2.4 Response

The planned sample for the 1st wave consisted of 90 children in each country, 30 children per age group, who would meet the strict selection criteria and would accomplish the whole test battery scheduled for the 1st wave of data collection. Although the total number of recruited children was much higher than needed in both countries, 120 in Israel and 174 in Germany, difficulties with sampling of participants as well as the high rate of drop-outs considerably reduced the initially planned sample.

In Germany additional participants could be recruited and tested before the 1st wave was finished, resulting in 90 Russian-German bilingual children aged 4-7 in three age groups. In Israel, schoolchildren could be tested only during the 2nd wave, which had an effect on the

number of tested children during the 1st wave. However, after finishing the 1st wave including parent interviews, more children had to be excluded from the final data set.

Many children dropped out in the first stage of the selection process, as they did not meet the basic requirements of the project (e.g. age of entrance to preschool, length of exposure to Hebrew/German, etc.; for more details see section 2.1.2). At the second stage of the selection process, again several children dropped out because of insufficient knowledge of one of the languages. Besides those instances, there were several refusals of participation and relocations at the early stage of the 1st wave testing process. Some basic background information on the 1st wave participants is given in Table 2:

Background info	**Germany** (N=90)	**Israel** (N=79)
Age	M=65.13, range 47-86mo	M=70.22, range 54-84mo
Gender	44 male, 46 female	35 male, 44 female
Home language	88 Russian-dominant 2 one Ger-speaking parent	67 Russian-dominant 7 one Heb-speaking parent
Birth order	53 firstborn, 37 laterborn	40 firstborn, 39 laterborn
Number of siblings	M=1.82, range 1-5	M=1.87, range 1-4
Age of L2 onset	M=35.46mo, age 8-60mo	M=45.81mo, 6-72 mo
L2 exposure	M=26.33mo, range 0-46 mo	M=32.57mo, range 0-66mo

Table 2. Background information on participants from the 1st wave

From all children participating in the 1st wave, 43 were selected for the 2nd wave in Germany and 30 were selected in Israel according to the transitional criteria (transition from preschool to school or to the 2nd grade of the elementary school). 42 children from the 1st wave (one child refused to participate) as well as 6 additional children with Jewish backgrounds could be tested in Germany, and 25 children could be tested in Israel.

Table 3 presents the total number of participants in both waves:

Transitions	1st wave		2nd wave
	Children tested (planned)	Parents tested (planned)	Children tested (planned)
GERMANY			
Preschool	62 (60)	60 (62)	
School	28 (30)	28 (28)	48 (49)
sub-totals	**90**	**88**	**48**
ISRAEL			
Preschool	79 (60)	76 (79)	
School	0 (30)	0 (30)	25(30)
sub-totals	**79**	**76**	**25**
Totals	**169**	**164**	**73**

Table 3. Total number of participants in both waves

4. Data preparation

4.1 Data processing

The data was analyzed in stages, focusing first on individual children, linguistic features, and social identity tasks and across languages; next on group comparisons across languages, linguistic features, and tasks. The findings relate to linguistic structure tasks, to certain aspects of social identity and to connections between language acquisition and social identity. The different degrees of social integration discussed above – Russian Maintenance, Bicultural, and Israeli/German Assimilated – guided data analysis and interpretation.

One of the most important policy issues in migrant education is how much exposure to the target language is necessary to ensure that children from migrant families will become socially integrated and be able to compete with their native-born peers. The present study addressed this issue by looking at correlations of length of intensive exposure in preschool to German/Hebrew with performance on standardized language tests (based on standard scores: children were divided into those who scored 1.5 standard deviations below the norm and those who scored at or above age-based norms), lexical abilities, and grammatical knowledge in the host language.

The data was processed in the following way:

1 - All information from the parent questionnaire data was coded for the purposes of further statistical analysis.

2 - Summaries in the form of verbal evaluations of the quantitative data were produced for each child based on the parents' responses to all sociolinguistic questionnaires.

3 - Analyses of the parent data were performed along the two axes:

(1) the child's linguistic profile – as determined by his or her language preferences and linguistic proficiency assessed by parents.

(2) the child's sociolinguistic profile – as based on his or her social network and frequency of L1 (Russian) and L2 (Hebrew/German) use at home and outside of home. In addition, the data on code-switching and parents' assessments of children's ethno-linguistic identity were considered.

Analyses by the above criteria yielded a continuum of bilingual children types: Russian maintenance; balanced sociolinguistic network, balanced linguistic proficiency; Hebrew/German dominant, Israeli/German sociolinguistic network.

4 - The ranking of children into the above categories was compared to similar ratings based on the person perception task, in which children's performance was rated as

'Russian-maintenance', 'Bicultural' and 'Hebrew maintenance'. The two kinds of ranking were performed independently.

5 - Correlations of the children's ranking with several independent variables were examined, to determine the role of the following factors: age of entering Russian/Hebrew/German preschool, contact with the old country (OC), the presence or absence of a grandmother living with the family or taking care of the child, the presence of younger/older siblings, etc.

4.2 Final data sets

To arrive at comparable samples for ***sociolinguistic analysis***, children with non-Russian-speaking parents (children were therefore exposed to both Russian and Hebrew/German from birth), those at risk for language impairment, those from non-middle class SES and those lacking data on tasks chosen for the final analysis (e.g., no parent interview, no standardized tests performed, discontinued testing) were excluded from the final data set, leaving 65 German immigrant children and 58 Israeli immigrant children. The composition of the two samples was very similar for age, gender, birth order, and length of exposure to the target language in preschool, as can be seen in Table 4.

	Germany (N=65)	Israel (N=58)
Age	M=65.78, range 47-86 mo	M=70.06, range 53-81
Gender	33 male, 32 female	26 male, 32 female
Birth order	35 firstborn, 30 laterborn	26 firstborn, 32 laterborn
L2 exposure	M=37 mo, range 13-65 mo	M=36 mo, range 9-68 mo

Table 4. Final data set for sociolinguistic analysis (1st wave)

In order to analyse linguistic performance, data can be divided according to different criteria, building subgroups based on children's age, length of exposure, types of performed task and so on. The final data set for ***linguistic analysis*** based on standardized tests in the target language (Hebrew or German) embraces 61 Russian-German and 79 Russian-Hebrew participants.

Both final data sets processed and stored in the spss format build a basis for statistical analysis of sociolinguistic and linguistic tasks. Much analysis has been done in the current project, and much remains for the future. The raw data, reflecting the data collected during the project through sociolinguistic questionnaires, child and parent interviews, and

sociolinguistic tasks, as well as a selection of linguistic tasks have been processed and stored in excel files and can be used for further analysis.

The data collected during the 2nd wave has not yet been statistically analyzed in the framework of the project. However, the sociolinguistic part was processed and stored in the excel format and can be converted to spss format for further statistical analysis.

4.3 Protection of Privacy

In order to protect the privacy of data and project participants several measures were applied to all data sets, from raw data to final data sets. From the very beginning of the sampling procedure, each participant received an ID number and was followed under this ID through the whole project. Parents have received the same ID number as their children. In case the parents' data was processed and stored separately, their ID received an additional abbreviation *par* distinguishing them from children, e.g. while storing audio files.

All data processed electronically was stored in a way that no direct identification of participants and participating institutions would be possible. Equally, the names of participants, family members or friends and locations were removed from files and/or recoded in categories (e.g. Russian/German/Israeli name) if needed for further analysis. Exact dates, such as date of immigration, date of birth/age of parents as well as age of child's entering preschool, age of the first exposure to particular languages and other related dates were represented in years or months, except for the child's date of birth which is essential for any linguistic analysis and serves as a basis for other calculations. However, the date of birth alone without any related information doesn't allow identification of the child.

Audio files were stored with the reference to the participants' ID numbers only. Obviously, no changes were made to the audio files; however, in no case they are intended to be given to a third party. Transcriptions based on the audio files do not contain names of people or locations as they were recoded or removed completely. The only authentic information (except for the narrative itself) is the date of birth and the date of record which is obligatory for transcribed files in order to correctly calculate the exact age of a participant (this procedure is done automatically in the CLAN program which runs analysis of transcribed files). Even then there is no way to figure out who the participant was and where the study was conducted. If the transcripts are used for non-linguistic analysis, this information can be removed.

In publications the reference is made only to groups of children or their ID numbers and age in years and months so that the identification is impossible. Transcribed data, if used in publications, presents in this case only the information which has undergone the complete procedure of privacy protection including removing of the child's date of birth and any proper names, and may be published without restrictions.

5. Appendix: List of accompanying documentation

5.1 Social identity and attitude measures (first wave)

5.1.1 Person perception task

Task instructions	*pp = person perception*
	pp_GER_German_instruction_4-5yrs.pdf
	pp_GER_German_ instruction_6yrs.pdf
	pp_GER_Russian_ instruction_4-5yrs.pdf
	pp_GER_Russian_ instruction_6yrs.pdf
	pp_ISR_Hebrew_instruction.pdf
	pp_ISR_ Russian_instruction.pdf
Answer sheets	
	pp_ GER_German_answer_sheet_4-5yrs.pdf
	pp_GER_German_answer_sheet_6yrs.pdf
	pp_GER_Russian_ answer_sheet_4-5yrs.pdf
	pp_GER_Russian_ answer_sheet_6yrs.pdf
	pp_ISR_Russian_answer_sheet.pdf
Support material	
Magic ladder = graphic scale	magic_ladder.pdf
Cards indicating proficiency groups	pp_proficiency_group_cards.pdf

5.1.2 Child sociolinguistic interview and questionnaires

Child sociolinguistic interview	*sli = sociolinguistic interview*
	child_sli_GER_German.pdf
	child_sli_GER_Russian.pdf
	child_sli_ISR_Hebrew.pdf
	child_sli_ISR_Russian.pdf
	child_sli_MASTER_English.pdf
Child sociolinguistic questionnaires	*slq = sociolinguistic questionnaires*
	child_slq_GER_German.pdf
	child_slq_GER_Russian.pdf
	child_slq_ISR_Hebrew.pdf
	child_slq_ISR_Russian.pdf

	child_slq_MASTER_English.pdf
Support material	*srp = self-rating of proficiency*
Pictures for self-rating of proficiency (8C)	child_srp_pictures.pdf

5.1.3 Parent sociolinguistic interview and questionnaires

	parent_slq_GER_Russian.pdf
	parent_slq_ISR_Russian.pdf
	parent_slq_MASTER_English.pdf

5.2 Short sociolinguistic questionnaire (second wave)

	wave_2_slq_GER_German.pdf
	wave_2_slq_GER_Russian.pdf
	wave_2_slq_ISR_Hebrew.pdf
	wave_2_slq_ISR_Russian.pdf

5.3 Raw data

Children's performance in linguistic tasks	children_ling.xls
Children's sociolinguistic measures	children_socioling.xls
Parents' sociolinguistic measures	parents_socioling.xls
Children's sociolinguistic measures (second wave)	wave_2_socioling.xls

5.4 Final data sets

spss data file for sociolinguistic analysis	socioling_analysis.sav
spss data file for linguistic analysis	ling_analysis.sav
codebook for sociolinguistic analysis	codebook_socioling_analysis.pdf
codebook for linguistic analysis	codebook_ling_analysis.pdf

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