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The impact of familial activities on the verbal and non-verbal skills of children of Turkish immigrants in Germany

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Abstract
A vast array of studies has demonstrated that stimulating activities within the family (e.g., reading to child, singing together) positively affect children's development in various domains. However, this influence is less established for children of immigrants. This paper analyses the impact of familial activities on non-verbal cognitive skills and German-language skills of six-year-old children of Turkish immigrants in Germany. It is argued that not only the frequency of familial activities but also the language use during these activities needs to be considered in immigrant families which has rarely been done in the previous literature. Not taking into account the language use during these activities might be especially problematic in the domain of verbal skills. The empirical results show that the frequency of stimulating familial activities is positively associated with children's verbal and non-verbal skills. In contrast, the language use during these activities only affects children's language skills but not their non-verbal cognitive skills. It is concluded that the language use during familial activities needs to be taken into account in the case of verbal skills.

Keywords: Children of immigrants, familial activities, language use, cognitive skills, language skills

Introduction
A stimulating familial setting is crucial for children's development – especially at an early age. Although different terms are used in different disciplines, many findings demonstrate that 'what parents do' with their children in terms of stimulating activities and parenting behavior positively affects their children's development (Cheadle, 2008; Crosnoe & Cooper, 2010; Ermisch, 2008; Guajardo, Snyder, & Petersen, 2009; Melhuish et al., 2008). Stimulating familial activities strongly affect children's learning opportunities and several studies show that they (partly) mediate the association between parents' socioeconomic status and children's development (Cheadle, 2008; Dilworth-Bart, Khurshid, & Vandell, 2007; Myrberg & Rosén, 2009; Yeung, Linver, & Brooks-Gunn, 2002). However, the influence of such familial activities on children's development is less established for children of immigrants (see Totsika & Sylva, 2004, p. 28). Only few studies have explicitly addressed this influence in immigrant families and the results are not consistent (e.g., Bradley et al., 1989; Mistry, Biesanz, Chien, Howes, & Benner, 2008). So, the question remains open in which way familial activities affect the development of children of immigrants and which factors have to be additionally considered compared to non-immigrant families.

This paper analyses the impact of familial activities on the verbal and non-verbal skills of six-year-old children of Turkish immigrants in Germany. The family investment model (see Conger, Conger, & Martin, 2010) is used as a theoretical framework. It is assumed that parents invest in their children's development by providing a stimulating learning environment. However, I argue that the impact of familial activities in immigrant families might not be as straightforward as in non-immigrant families. It is very surprising that a very obvious factor has not been taken into account in the previous literature: *the language use during familial activities*. I argue that in immigrant

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families not only the frequency of familial activities but also the language use during these activities affects the outcome. However, this probably also depends on the *type of outcome* under consideration: Language use is supposed to be more important with regard to verbal skills than with regard to non-verbal skills. In the empirical analyses, the data of the German project 'Preschool Education and Educational Careers among Migrant Children' are used. This study focuses on the skill development of children of Turkish immigrants in early childhood and includes measures of their non-verbal cognitive skills and German-language skills.

This paper extends the research on the impact of the familial activities on child development by focusing on children of immigrants. The well-documented influence of a stimulating home environment is less clear for this group. In some studies, a (nearly) identical impact is found for immigrant and non-immigrant families while other studies report a much weaker effect for children of immigrants. The reasons for these inconsistencies are not well understood yet. A possible reason might be that verbal and non-verbal skills have often been mixed up in previous studies. However, the impact of familial activities in immigrant families might be different with respect to verbal and non-verbal skills. In addition, it seems rather surprising that the language use during familial activities has not been regarded in the previous literature but only the general language use at home. However, language use during specific activities and general language use in everyday life does not need to be identical. The present article clearly contributes to the literature by explicitly comparing the impact of familial activities on verbal vs. non-verbal skills in immigrant families and by considering not only the frequency of familial activities but also the language use during these activities while controlling for language use in everyday life.

The outline of this article is as follows: The next section gives a short overview of previous studies on the impact of familial activities and language use for immigrant children's skill development. Next, the family investment model is briefly described, followed by the concrete hypotheses of this paper. The empirical results are presented after a description of the data and method. The last section discusses the findings.

Studies on the development of children of immigrants

Studies on the impact of familial activities

A large body of research demonstrates that stimulating familial activities positively affect children's development in different domains (e.g., Baharudin & Luster, 1998; Brooks-Gunn, Klebanov, & Duncan, 1996; Crosnoe & Cooper, 2010; Melhuish et al., 2008; Son & Morrison, 2010). Many of these studies use the 'Home Observation for the Measurement of the Environment' (HOME) Inventory to characterize the 'quality and quantity of stimulation and support available to a child' at home (for a description see Totsika & Sylva, 2004). Other literature uses terms like 'parenting quality' or 'parental investment' which are often operationalized in a similar way (Adi-Japha & Klein, 2009; Cheadle, 2008; Ermisch, 2008). Although the association between a stimulating home environment and children's skill development is well-established for native families, this is not the case for immigrant families.

There is only little research on the home environment of immigrant families (e.g., Schmitz, 2005; van Steensel, 2006). Using data of the 'National Early Head Start Research and Evaluation Project' Mistry et al. (2008) find a positive influence of a stimulating home environment on children's cognitive skills in early childhood. The results from separate path analyses reveal that the association between the stimulation at home and children's cognitive skill development is quite similar in immigrant families and non-immigrant families (Mistry et al., 2008, p. 202). Other studies

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focus only on ethnic differences without considering the migration status of the parents. In such a study, Bradley et al. (1989) show that the correlations between the HOME subscales and children's early cognitive skills are generally stronger for whites than for blacks and almost nonexistent for Mexican Americans. Since many Mexican American parents are immigrants, this result could indicate that the home environment is less predictive for children of immigrants compared to children of native-born parents. Also the study of Sugland et al. (1995) finds that the HOME subscales are less predictive for Mexican American children's verbal and cognitive skills than for European American children's skills. In sum, the (few) findings about the impact of familial activities on the skill development by children of immigrants are rather inconclusive.

Studies on the impact of the language use

Immigrant parents usually have a native language that is different from the language of the receiving country. In many cases, they also use this language as communication language at home (e.g., Nauck, 2007, p.45). With regard to children's language skills, an impact of their parents' language use is obvious: If the parents use language x at home, then the child gets more linguistic input in language x which, in turn, enhances children's proficiency in language x. The importance of linguistic 'input' or 'exposure' is stressed in many models of second language acquisition in different disciplines (e.g., Chiswick & Miller, 1995, 1998; De Houwer, 1995; Esser, 2006; Spolsky, 1989). Empirical studies on the language acquisition of bilingual children find a clear relation between parents' language use and their children's language proficiency (Gathercole & Thomas, 2009; Marchman, Martínez-Sussmann, & Dale, 2004; Pearson, Fernández, Lewedeg, & Oller, 1997). For example, Arriagada (2005) uses the data of the '1988 National Education Longitudinal Study' (NELS: 1988) to examine the association between the Spanish-language use at home and children's Spanish proficiency among Latino families in the United States. She finds that the Spanish-language use by parents, grandparents and siblings has significant positive effects on the children's Spanish proficiency (Arriagada, 2005, p.613).

Several studies have also analyzed the association between the family language and other types of skills. Crosnoe (2007) uses the data of the 'Early Childhood Longitudinal Study, Kindergarten Class' (ECLS-K) for an analysis on the school readiness of children from Mexican immigrant families. He finds that children of Mexican immigrant families have lower test results in math than native whites. A non-English primary family language shows an additional significant negative association with children's math achievement, even when several socio-economic characteristics of the family are simultaneously taken into account. In contrast, there is no significant effect of the family language on children's behavioral problems (Crosnoe, 2007, p.170). Magnuson (2006) also uses the ECLS-K data and reports that children of immigrants whose mother use a non-English language in communication with the child have lower math test results than children of native-born parents. This is not the case for children of immigrants whose mother speak English with them (Magnuson et al., 2006, p.1255). Also Lahaie (2008) confirms a negative association between a non-English family language use in immigrant families and children's math test results with the ECLS-K data - even if several other family characteristics are considered. She additionally shows that this negative association is only significant in the case that both parents speak in a non-English language with their child (Lahaie, 2008, p.700). Glick, Batesa and Yabikua (2009) analyze the cognitive skills of two-year-old children using the 'Childhood Longitudinal Study, Birth Cohort' (ECLS-B). They do not find a significant association between the familial language use and children's cognitive skills (Glick et al., 2009, p.375).

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In sum, the association between parental language use and children's skills is very evident in the domain of language skills. The results are more inconsistent, however, with regard to other skill domains. All these studies have analyzed the association between general language use in the family (in everyday life) and child outcomes. However, I am not aware of a study explicitly focusing on the impact of language use during specific familial activities while controlling for language use in everyday life.

Theoretical framework and hypotheses

The family investment model is used as a theoretical framework in this paper. The basic idea is that parents can invest in the development of their children (Becker & Tomes, 1986; Haveman & Wolfe, 1994) and do so by providing a stimulating learning environment at home (see Conger et al., 2010, p.694-695; Linver, Brooks-Gunn, & Kohen, 2002, p.720). Familial activities can be interpreted as being such kinds of 'investments'.

The association between familial activities and child development is very straightforward in non-immigrant families. However, the question arises whether additional factors need to be considered in immigrant families. Two extensions of the basic family investment model are considered:

1.) *Differentiation between types of skills:* In immigrant families, the impact of familial activities on children's skills is probably different for verbal and non-verbal skills. While that impact on children's non-verbal skills is assumed to be the same as for children of native-born parents, they may probably gain less from familial activities with regard to receiving country specific language skills.
2.) *Language use during familial activities:* An obvious reason for the last point is that immigrant parents often use a language different from the receiving country during these activities. Therefore, not only the frequency of familial activities but also the language use during these activities should be considered in immigrant families.

The second point here is especially important because the language use during specific familial activities may not necessarily be identical to the general home language in everyday life. For example, it could be possible that parents usually use the language of the receiving country at home but use their native language when singing together with their child because they only know children's songs from their country of origin and not from the receiving country. Or it could be possible that parents usually use the language of their country of origin at home but not in reading to their child because they have bought children's books in the receiving country which are written in the receiving country language. Thus, considering the language use during these specific activities (while controlling for general language use in everyday life) could be important for a better understanding of the impact of familial activities in immigrant families.

It should be noted that the acquisition of the language of the parents' country of origin is not addressed in this paper. Of course, also in this case, language use during familial activities should play an important role.

The concrete hypotheses of this paper about the impact of familial activities on the skills of six-year-old children of Turkish immigrants in Germany are as follows:

Hypothesis 1: A higher frequency of familial activities has a positive influence on the German-language skills and the non-verbal cognitive skills of children of Turkish immigrants.

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Hypothesis 2: The use of the German language during familial activities has a positive influence on the children's German-language skills. This association can even be found when the home language which is used in everyday life is taken into account.

Hypothesis 3: The influence of the language use during familial activities is stronger in the case of children's German-language skills than in the case of children's non-verbal cognitive skills.

Data and method

The empirical analyses draw on the data of the project 'Preschool Education and Educational Careers among Migrant Children' which is carried out at the University of Mannheim (Germany). In this project, we randomly selected German and Turkish families with a 3-4-year-old child from the data of resident-registration offices in 30 cities and communities of a local region in South-West Germany. The study concentrated on Turkish immigrants because they are the largest migrant group in Germany and their children are particularly disadvantaged in the German educational system (Kristen & Granato, 2007; von Below, 2007). The sample is not representative for German and Turkish families with a three-year-old child in Germany because of the local limitation of the study. But this does not pose a problem since the study was not intended to exactly describe the skill level of Turkish and German children in Germany but to test general association hypotheses.

A letter describing the study was sent to the families (Turkish families received this letter in both German and Turkish). Thereafter, interviewers contacted the families to arrange a date for the interview at their homes. A computer-assisted personal interview was conducted with the parent who spends the most time with the child (this was the mother in about 95 per cent of the cases). Turkish families were contacted by bilingual interviewers, and the parents could choose their preferred language for the interview. After the parent interview, the standardized developmental test 'Kaufman Assessment Battery for Children' (K-ABC) was conducted with the child (German version, see Melchers & Preuß, 2003). This whole procedure was repeated one year later in a follow-up. A third panel wave took place when the children were about six years old.

For the analyses of the present paper, only the sample of the Turkish families is used. Because the questions about the language use during familial activities were only asked in the third wave, the analysis sample is also restricted to the third wave data. 627 Turkish families were surveyed in the first panel wave in 2007. The response rate was 69 percent in this group. From this original sample, 80 percent of the Turkish families also took part in the third panel wave. Excluding some additional cases with missing information leads to an analysis sample of 465 cases. The Turkish families that dropped out in later waves were not significantly different with respect to children's initial language and cognitive skills or the frequency of familial activities and language use in the family. The operationalizations of the model variables are presented next.

Non-verbal cognitive skills (dependent variable 1): The results of the following subtests from the 'Kaufman Assessment Battery for Children' (K-ABC) are used as indicators of children's non-verbal cognitive skills:

- *Face recognition:* The tester presents a face in a photograph to the child for five seconds, after which the child is then shown a group photograph. The child is required to recall the previously presented face and to select the correct face in the group photograph.

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- *Triangles:* The tester gives the child some foam triangles. The child is required to assemble these triangles into an abstract pattern that matches a picture.
- *Matrix Analogies:* The child is required to select a picture or abstract design that best completes a visual analogy.
- *Spatial memory:* The tester briefly presents a picture with several objects to the child. After that the child is required to recall the placement of the objects and point to them on a page with a grid.

These subtests measure the children's simultaneous processing skills (for more details about these subtests, see Melchers & Preuß, 2003). The test instructions could be given in either German or Turkish (the child could choose the test language). These tasks did not require a verbal answer of the child. Instead of the age-standardized test scores, which use only 3-months-intervals for the age adjustment, the raw test scores are utilized and age in months is controlled in the later analyses. All four subtests load on only one factor in a principal component factor analysis. Thus, the arithmetic mean of the four subtest scores (standardized for different ranges of values) is used as an overall measure of children's non-verbal cognitive skills. For a better interpretation, this test score is then z-standardized so that the mean is 0 and has a standard deviation of 1.

German-language skills (dependent variable 2): Children's German-language proficiency is measured by the subtest 'expressive vocabulary' from the K-ABC. In this subtest, the children were shown pictures of objects and were asked to name them. The names of the objects had to be given in German, although the test instructions could be stated in either German or Turkish. Here again, the z-standardized raw test score is used.

Frequency of familial activities: An additive index of different familial activities is used to measure the frequency of familial activities. The parents were asked how often they conduct the following activities: telling stories to their child, reading books to their child, singing together with their child, playing cards or board games with the child. The answers could be given on a 7-point scale ranging from 0 'never' to 6 'daily'. The arithmetic mean of these four items is used as an index of the frequency of familial activities.

Language use during familial activities: Parents were also asked to indicate which language is spoken during each of these four activities (see last paragraph). The answers were given on a 5-point scale ranging from 0 'always Turkish' to 4 'always German'. The arithmetic mean of the language use during the four activities is calculated.

In the later analyses, all models also contain child's age in months, the number of children in the household, mother's educational level, parent's class position (highest level of both parents) and mother's employment status as basic control variables. Moreover, some additional covariates will also be considered in the last model step to test the possibility that the association between familial activities and children's skills might be spurious. This possibility can, of course, never be completely ruled out. However, the dataset contains some important covariates that can be taken into account. This especially concerns parents' educational resources, the language use in everyday life and the exposure to other contexts where German is spoken. Thus, the following variables are also controlled in the later analyses:

- *Parent's cultural capital:* Additive index of six items how often the parent conduct different types of cultural activities on a 6-point scale from 1'never' to 6 'daily': reading books, reading newspaper, using the internet/ reading or writing emails, doing voluntary work in an

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organization, engaging in artistic activities (e.g., painting), attending the opera, the theater or an museum.

- *Parent's attitude towards education:* Arithmetic mean of two items measuring how much parents value education on a 5-point scale with higher values indicating a more positive attitude towards education: 'A good education is a value on its own.' 'A good education in Germany ensures international competitiveness of the economy.'
- *Child attends a playgroup or club:* Dichotomous variable indicating whether or not the child is a member of a club or attends a playgroup on a regular basis.
- *Parent's language use in everyday life:* The parents were asked how often they use German and Turkish in everyday life when speaking to their child on a 5-point scale. Higher values on this variable indicate more German language use and less Turkish language use in everyday life.
- *German friends in child's social network:* Proportion of German friends in the social network of the child ranging from 1 'none' to 5 'all'.

Results

Descriptive statistics on all model variables are presented in table 1. In this sample of Turkish families, the familial activities are, on average, conducted once a week. German is used on average about half of the time during these activities.

Table 1: Descriptive statistics (means or proportions) by familial activities

Variable name *[value range]*	**All Turkish families**	**Familial activities (frequency and language use)**			
		Low frequency	*High frequency*	*Rarely German*	*Mostly German*
Dependent variables:					
Non-verbal cognitive skills *(z-stand.) [-3.7;3.3]*	0	-0.08	0.09	0.00	0.00
German-language skills *(z-stand.) [-3.2;1.9]*	0	-0.09	0.10	-0.20	0.20
Familial activities:					
Frequency of familial activities *[0;6]*	4.02	--	--	3.91	4.12
German-language use during familial activities *[0;4]*	2.32	2.26	2.38	--	--
Control variables:					
Child's age in months *[64;85]*	73.55	73.43	73.69	73.83	73.28
Number of children in the household *[1;7]*	2.48	2.47	2.49	2.46	2.50
Mother's education *[0: low; 1: high/intermed.]*	0.36	0.32	0.40	0.32	0.39
Parents' class position	0.18	0.18	0.19	0.14	0.22

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[0: low; 1: high/intermed.]					
Mother is employed *[0: no; 1: yes]*	0.29	0.26	0.32	0.18	0.39
Parent's cultural capital *[1;5.5]*	2.63	2.44	2.85	2.58	2.68
Parent's attitude towards education *[1.5;5]*	4.58	4.61	4.55	4.56	4.60
Child attends playgroup or club *[0: no;1: yes]*	0.38	0.32	0.45	0.33	0.43
German language use in everyday life *[1;5]*	2.73	2.70	2.77	2.16	3.23
Child has German friends *[1;5]*	2.86	2.67	3.09	2.64	3.08
Number of cases	465	250	215	229	236

Source: Project 'Preschool Education and Educational Careers among Migrant Children', own calculations

Notes: The differentiation between a 'low' and 'high' frequency of familial activities and between the use of the German language 'rarely' and 'mostly' is based on a median split.

Table 1 also shows that the children have higher verbal and non-verbal test scores in families with a high frequency of familial activities compared to families who conduct these activities less often. The children in families with a more frequent German language use during the familial activities have better test results in the German-language test than children in families with a less frequent German language use. However, no difference in children's non-verbal cognitive skills by language use during these activities can be detected. Also the socio-economic characteristics and the other covariates mostly differ between the families depending on the frequency of familial activities and language use during these activities.

Table 2 presents the results of OLS-regression on the influence of familial activities on the non-verbal cognitive skills of children of Turkish immigrants. The Models 1a constitute the basic model: It only contains the frequency of familial activities, the language use during familial activities and the basic control variables. This model shows a significant positive association between the frequency of familial activities and children's non-verbal cognitive skills while no significant effect can be found for the language use during these activities. The model 2a adds the additional covariates. This leads only to a very minor reduction of the positive effect of the frequency of familial activities.

Table 2: The influence of familial activities on immigrant children's non-verbal cognitive skills

	Model 1a			**Model 2a**		
	b	**(SE)**	**beta**	**b**	**(SE)**	**beta**
Stimulating familial activities:						
Frequency of familial activities	0.11	(0.04)	0.13 *	0.10	(0.04)	0.12 *
Language use during familial activities	0.04	(0.04)	0.04	-0.01	(0.05)	-0.02
Covariates:						
Parent's cultural capital				0.00	(0.06)	0.00

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Parent's attitude towards education			0.13	(0.07)	0.08 +
Child attends a playgroup or club			0.23	(0.10)	0.11 *
German language use in everyday life			0.06	(0.05)	0.07
Child has German friends			-0.00	(0.04)	-0.00
R^2	0.1128		0.1350		
Number of cases	465		465		

Source: Project 'Preschool Education and Educational Careers among Migrant Children', own calculations

Notes: Regression coefficients from OLS-regression. All models also include child's age in months, number of children, mother's education, parents' class position, mother's employment status.
* p≤0.05, + p≤0.1

Table 3 presents the analogous results for children's German language skills. In the basic model 1b, the frequency of familial activities as well as the language use both exhibit a significant positive association with children's language skills. However, it can be noted that the coefficient of the language use is considerably larger than the coefficient of the frequency (betas: 0.25 vs. 0.12). In model 2b, these effects are reduced when the additional covariates are also considered. Especially the effect of the language use during the familial activities is now strongly reduced. This is not surprising since the covariates include several variables about exposure to the German language including the general language use in everyday life. It is noteworthy, however, that the frequency of the familial activities as well as the language use during these activities still show a significant positive influence on children's German-language skills.

Table 3: The influence of familial activities on immigrant children's German-language skills

	Model 1b			**Model 2b**		
	b	**(SE)**	**beta**	**b**	**(SE)**	**beta**
Stimulating familial activities:						
Frequency of familial activities	0.10	(0.04)	0.12 *	0.07	(0.04)	0.09 *
Language use during familial activities	0.22	(0.04)	0.25 *	0.10	(0.05)	0.11 *
Covariates:						
Parent's cultural capital				0.02	(0.06)	0.02
Parent's attitude towards education				0.29	(0.06)	0.19 *
Child attends a playgroup or club				0.25	(0.09)	0.12 *
German language use in everyday life				0.13	(0.05)	0.15 *
Child has German friends				0.08	(0.04)	0.10 *
R^2	0.1802			0.2590		
Number of cases	465			465		

Source: Project 'Preschool Education and Educational Careers among Migrant Children', own calculations

Notes: Regression coefficients from OLS-regression. All models also include child's age in months, number of children, mother's education, parents' class position, mother's employment status.
* p≤0.05, + p≤0.1

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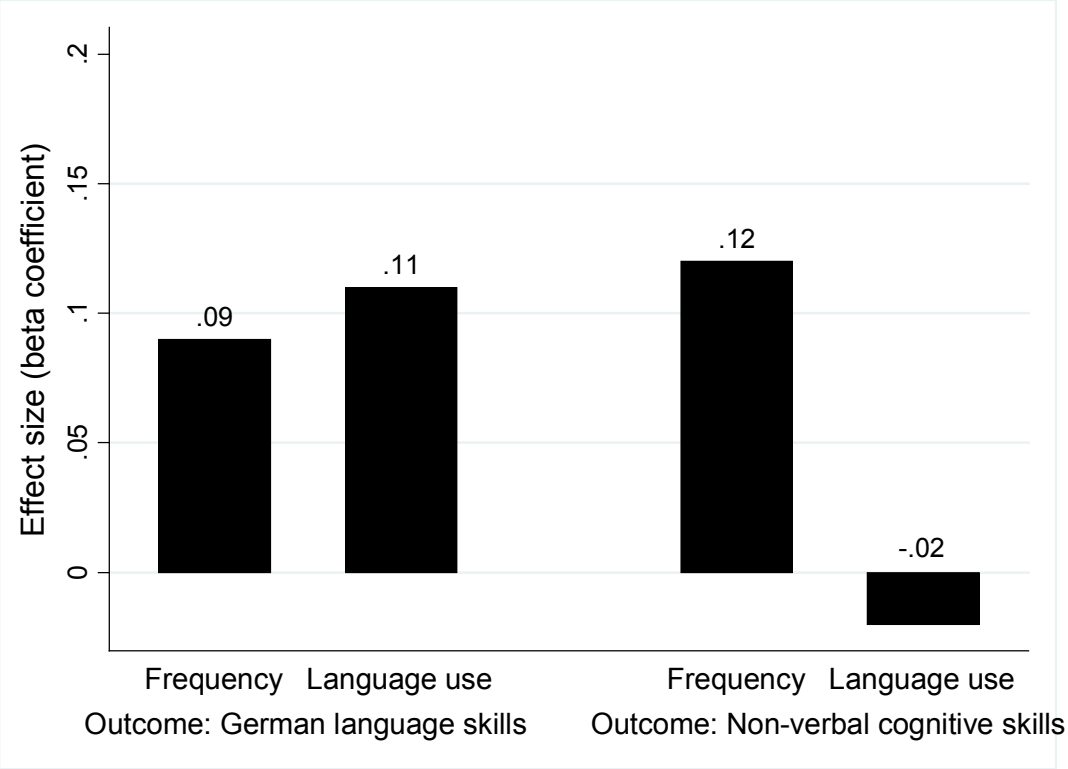
The main results are also graphically depicted in figure 1. It can be seen that the frequency of familial activities has a positive influence on both types of skills. This confirms the first hypothesis. With regard to the children's German-language skills, also the language use during the familial activities exhibits a positive impact (confirmation of hypothesis 2). However, this is not the case for children's non-verbal cognitive skills. Thus, also the third hypothesis can be confirmed: Language use is only relevant in the case of verbal skills but not in the case of non-verbal skills.

Figure 1: The influence of the frequency of familial activities and the language use during these activities on immigrant children's non-verbal cognitive skills and German-language skills



Source: Project 'Preschool Education and Educational Careers among Migrant Children', own calculations
Notes: Beta coefficients from table 2, model 2a and table 3, 2b.

Conclusions and discussion

This paper has investigated the influence of familial activities on the non-verbal cognitive skills and German-language skills of children of Turkish immigrants in Germany at age six. Besides the frequency of familial activities also the language use during these activities has been considered. It has been shown that the frequency of familial activities positively affects children's verbal skills as well as their non-verbal skills. Thus, the well-established finding of a positive impact of stimulating familial activities on children's development can also be replicated in this sample of immigrant children. The second main result concerns the role of language use during such familial activities: It has been found that the language spoken during these activities is not relevant with respect to immigrant children's non-verbal cognitive skills. In contrast to this finding, it plays an important role regarding their language skills.

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This last finding implies that studies on immigrant children's language acquisition should also consider the language use in various contexts in addition to the quantity and quality of other aspects of these learning contexts. More generally, it can be argued that if the outcome under consideration is specific for the receiving society (like language skills) than also the 'cultural content' of the 'input' needs to be regarded (Becker, Klein, & Biedinger, 2013). A further implication is that it is important to clearly distinguish between verbal and non-verbal skills. The previous inconsistent results about the impact of the home environment for children of immigrants could partly be due to the fact that verbal and non-verbal elements are often mixed up in tests on children's skills. To measure children of immigrants' non-verbal cognitive skills, tests need to be culturally fair and may not contain elements that are specific for the receiving society (like instructions in the language of the receiving society). On the other side, it can be an explicit aim to measure the receiving country specific language skills of children of immigrants – but then this aim has to be clearly stated.

The results have some implications of practical relevance. At least in Germany, the political debate about the development of children of immigrants often focuses on the deficits of immigrant parents in supporting their children in the academic domain. The present findings show that this perspective neglects the potential of immigrant parents to foster their children's development. It is not true that immigrant parents cannot help their children acquiring key competencies for educational success. A higher frequency of stimulating activities fosters children's skill development. Thus, parents should be encouraged to engage in such types of activities. In the case of non-cognitive skills, the language spoken during these activities does not matter. Therefore, immigrant parents should not be discouraged to read books in their native language or sing together with their child songs from their country of origin. However, with respect to the language of the receiving country, not only the frequency but also the language use during these activities matters. A clear political implication from this finding would be that extra-familial learning contexts should be provided for these children that give them the chance to come into contact with the language of the receiving country as early as possible. Preschool education may play a key role here because it can provide a setting with a rich language input. The study of Magnuson, Lahaie and Waldfogel (2006) suggests that especially children of immigrants whose mothers do not speak English at home can profit from preschool education and improve their English-language skills in this context.

Also some limitations of the present study should be noted. As it has already been mentioned in the data section, the sample is not representative for children of immigrants in Germany. Since the question about the language use during familial activities was only asked in the third panel wave of the study, only the data of this wave could be used. This leads to the very serious disadvantage that these data are only cross-sectional. The findings are therefore only correlational and may not be interpreted as causal effects. Also the children's development over time could not be analyzed. A future replication with longitudinal data would therefore be desirable.

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