



Raising educational expectations: A case in favor of bilingual language practices in migrant families

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Abstract

Adolescents with a migration background are characterized by significantly lower educational attainment rates than their peers without a migration background in most Western OECD countries. Most research explains this gap with reference to an unequal distribution of economic, social and cultural capital across social strata, which in turn leads to systematically lower levels of academic performance in the migrant population. In addition to these factors, bilingual language practices in migrant families have been claimed to be a major determinant of lower achievement and attainment due to negative effects on the acquisition of majority language skills. However, this claim has remained controversial as there is also evidence on the negative consequences of students' loss of their heritage languages. We hypothesize that bilingual language practices can raise students' educational aspirations and expectations due to their positive influence on parent-adolescent interaction and a more effective transmission of parental aspirations. Estimating multivariate binary response models, we find that higher levels of parent-adolescent interaction are related to higher probabilities of expecting to complete high educational levels, and that monolingual language practices in migrant families may negatively influence students' educational outcomes due to lower levels of parent-child interaction.

1. Introduction

Adolescents with a migration background are characterized by significantly lower educational attainment rates than their peers without a migration background in most Western OECD countries. Most research explains this gap with reference to an unequal distribution of economic, social and cultural capital across social strata, which in turn leads to systematically lower levels of academic performance in the migrant population (cf. Bourdieu, 1983; Boudon, 1974; Klieme et al., 2010). In addition to these factors, bilingual language practices in migrant families have been

claimed to be a major determinant of lower achievement and attainment. Many researchers express concern that the linguistic challenges related to students' bilingual status might hinder the development of majority language skills, and in particular academic language skills, which have been found to be strongly related to students' educational performance (cf. e.g., Esser, 2006; Klieme et al., 2010).

Although proficiency in the majority language is clearly related to students' educational success, empirical research also suggests that it does not necessarily have to come at the loss of students' heritage languages. For example, children have shown significant advances in both the majority and the heritage language in high-quality bilingual education programs that maintain support in both languages (cf. e.g., Oh & Fuligni, 2010). Moreover, there is increasing evidence that heritage language maintenance has positive effects on developmental outcomes for adolescents with a migration background, and that the loss of the heritage language may have serious consequences such as the isolation from one's cultural community and disruptions in parent-child relationships (e.g., Tseng & Fuligni, 2000; Portes & Hao, 2002; Phinney, Romero, Nava & Huang, 2001).

These aspects are in turn strongly related to students' educational integration as both the family and the cultural community constitute important sources of social and cultural capital, which are considered major determinants of adolescents' educational goals and achievement. In the family context, both parental aspirations for their children's educational attainment and parent-child relationship have consistently been found to strongly influence adolescents' academic achievement and attainment in terms of encouraging constructive forms of behavior (cf. e.g., Oh & Fuligni, 2010; Mau & Bikos, 2000). As many first-generation immigrant parents begin learning the majority language in adulthood and rarely acquire native-like abilities, children's shift to monolingualism can entail language barriers that hinder parents and children from communicating about their goals and accomplishments (cf. e.g., Kouritzin, 1999; Arriagada, 2005). In several cases, parents have been found to be unable to express their thoughts and feelings fully to their children, and often even ordinary communication with parents is disrupted by language barriers (cf. e.g., Fillmore, 1991). Following this line of argumentation, we hypothesize that bilingual language practices in migrant families may positively influence students' educational aspirations and expectations due to the positive impact of bilingual practices on parent-child interaction, which may be related to a more effective transmission of parents' aspirations for their children's educational attainment.

2. Data and approach

Data was collected from 350 9th and 10th graders in three schools in Hamburg at the end of the school year 2010/11, when the students were at the point of transition into (1) further general education, (2) vocational training and education or (3) the labor market or unemployment. A detailed questionnaire was designed to collect information on students' and parents' career aspirations, expectations and decision-making processes concerning both future and past attainment choices as well as on family language practices. Further, a text production task in German and a test for cognitive abilities were conducted. In line with the argumentation above, the students were classified into four categories depending on family language practices and migration biography:¹

- (1) Monolingual German² speakers: One or both parents born abroad, German used most often in communication between adolescent and the parent(s) born abroad.
- (2) Bilingual³ German speakers: One or both parents born abroad, German *and* the heritage language (HL) used most often in communication between adolescent and the parent(s) born abroad.
- (3) Bilingual heritage language (HL) speakers: One or both parents born abroad, HL used most often in communication between adolescent and both parents.
- (4) Natives: Both parents born in Germany.

As the present study focuses on the probability that students aspire and expect to complete the highest educational level that can be obtained in the German general education system (Abitur 'ABI')⁴, students' and parents' educational aspirations and expectations were collapsed into binary variables. This operationalization corresponds to the particular importance of achieving ABI as (a) ABI provides access to higher education and (b) ABI has become an important informal requirement in the German vocational education and training system in terms of significantly influencing adolescents' chances to find a suitable training position after leaving the general school system (Konsortium Bildungsberichterstattung, 2006). The variables included in the analyses below were specified as follows:

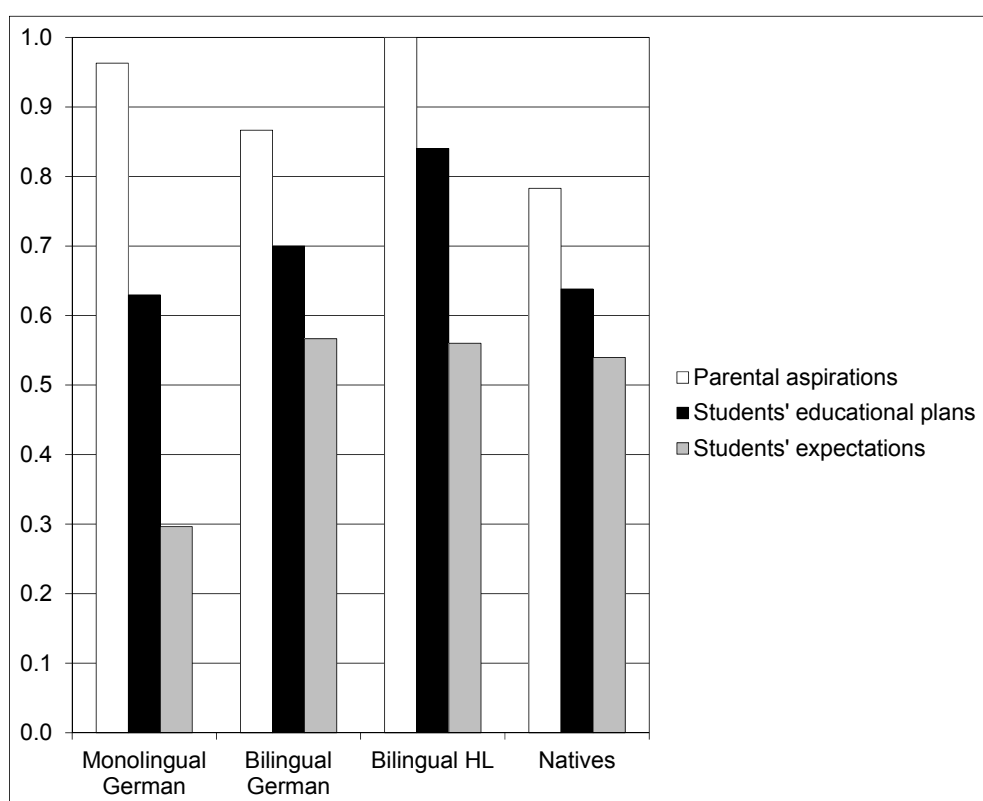
- (1) Students' aspirations (plans): The student expressed that he or she plans to complete the highest level of education (ABI).
- (2) Students' expectations: The student expressed that he or she plans to complete the highest level of education and is rather or very certain to eventually complete this level of education (4-point Likert scale from very uncertain to very certain).
- (3) Parental aspirations: Students expressed whether their parents would like them to complete the highest educational level or not.

As a proxy for parent-child interaction (PCI), the average frequency with which students stated to talk with their parents about the following topics is used (based on a 5-point Likert scale from (almost) daily to never): (1) media (books, movies, TV), (2) school issues, (3) society, politics and economy, and (4) family issues ($\alpha = .61$). As the α value is not particularly high, and as we expect that aspirations may be largely transmitted by talking about school, we alternatively use the frequency with which adolescents and their parents talk about school issues only.

3. Descriptive analysis

Figure 1 shows the share of students and parents from families with different language practices that plan to and realistically expect to attain the highest educational level. Only those students are included in the analysis that have completed the relevant information for all models estimated in this study to avoid selection issues ($n = 264$).

Figure 1: Share of parents and students that aspire and expect to complete the highest educational level



The data reveals that parents in migrant families have higher educational aspirations for their children than natives, and that parental aspirations are particularly high in the group of monolingual German and HL speakers. Students' educational

aspirations are highest in bilingual German and HL families, but no difference can be observed between natives and the group of monolingual German speakers. While students' educational expectations only slightly differ between natives and bilingual students, the share of students who expect to attain the highest educational level is significantly lower in the group of monolingual German migrants. In other words, the gap between parents' and their children's aspirations and expectations is higher in migrant families than in native families, and particularly high in the group of monolingual German speakers. While this finding is in line with the hypothesis that parental aspirations may not be transmitted as effectively in monolingual German migrant families, no further conclusions can be drawn at this point of the analysis as no other relevant background factors are controlled for.

3. Binary response results

In a next step, multivariate probit models are estimated to investigate the influence of the students' migration background (models 1-3A) and language usage in migrant families (models 1-3B) on students' aspirations and expectations while explicitly considering factors that have been shown to be related to students' educational aspirations and expectations. Due to the particular interest in the effect of parent-adolescent interaction, the variables that reflect PCI are introduced into the models in a separate step of the analysis (models 2-3 A&B). Models 2-3A include the frequency with which parents and their children talk about school issues to reflect PCI; models 2-3B include the compound index for PCI.

Model 1A shows that parental aspirations are significantly related to both their children's educational aspirations and expectations (table 1). The probability to aspire to and expect to complete the highest educational level does not significantly differ between adolescents with and without a migration background. German language skills, which were assessed based on a text production task, are significantly related to both higher aspirations and expectations, while the family's cultural capital, proxied by the number of German books in the household, is related to higher expectations but not aspirations.⁵ While both models as a whole are highly significant, introducing a variable that reflects the level of PCI significantly increases the explanatory power of the model to explain students' expectations but not of the model that explains adolescents' aspirations (models 2-3A). In other words, higher levels of PCI significantly increase the probability to expect to attain, but not to aspire to the highest educational level. Figure 2 visualizes the relation between level of PCI and the students' probability to aspire and expect to complete the highest educational level along with the 95 % confidence intervals while holding all other controls at their means (based on the compound index to proxy PCI).

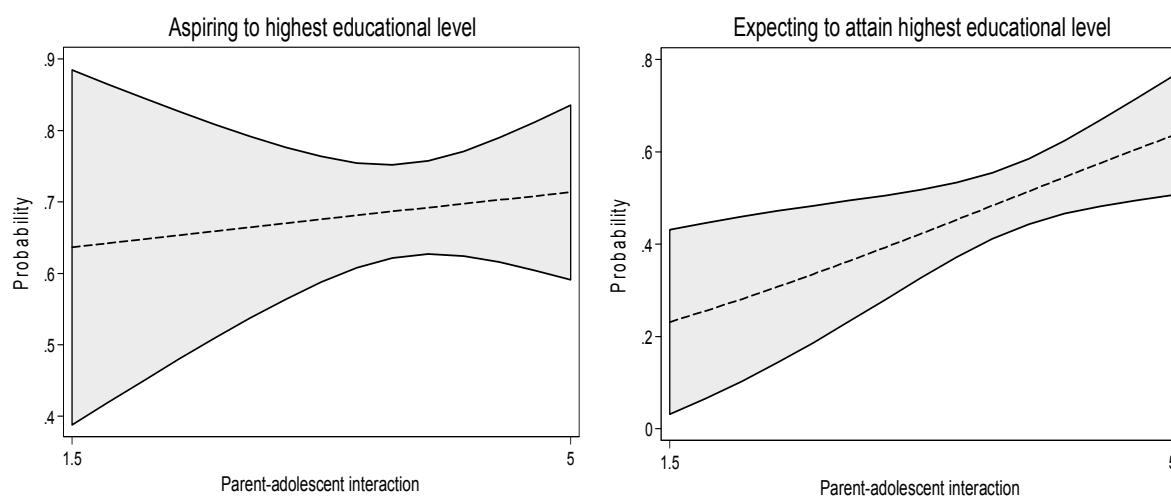
Table 1: Influence of migration background on students' aspirations and expectations

Student aspirations and expectations	Model 1A		Model 2A: frequency school		Model 3A: index PCI	
	Aspirations	Expectations	Aspirations	Expectations	Aspirations	Expectations
Parents' aspirations	1.877 ***	1.833 ***	1.879 ***	1.873 ***	1.876 ***	1.854 ***
(ref. no 'ABI')	0.280	0.325	0.281	0.333	0.280	0.329
	0.000	0.000	0.000	0.000	0.000	0.000
Sex	-0.084	0.026	-0.827	0.023	-0.085	0.014
(ref. female)	0.204	0.189	0.204	0.191	0.204	0.191
	0.678	0.890	0.685	0.905	0.675	0.940
Migration background	0.334	0.026	0.345	0.083	0.344	0.059
(ref. natives)	0.216	0.203	0.217	0.207	0.217	0.205
	0.122	0.900	0.113	0.688	0.114	0.772
Books in household	0.386	0.411 **	0.378	0.389	0.379	0.372
(ref. < 200)	0.211	0.198	0.212	0.201	0.212	0.200
	0.067	0.038	0.074	0.053	0.074	0.064
German skills	0.035 ***	0.030 ***	0.035 ***	0.031 ***	0.035 ***	0.030 ***
	0.013	0.011	0.013	0.012	0.013	0.011
	0.005	0.009	0.005	0.007	0.005	0.008
Cognitive abilities	0.022 **	0.014 ***	0.022 **	0.015	0.021 **	0.013
	0.010	0.009	0.010	0.009	0.010	0.009
	0.032	0.118	0.032	0.105	0.035	0.161
Parent-child interaction			0.061	0.292 ***	0.061	0.308 **
			0.112	0.112	0.138	0.135
			0.588	0.009	0.657	0.022
Constant	-3.557 ***	-3.434 ***	-3.826 ***	-4.830 ***	-3.791 ***	-4.611 ***
	0.713	0.683	0.872	0.898	0.887	0.870
	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R ²	0.26	0.19	0.26	0.21	0.26	0.21
χ^2	86.159	69.500	86.450 ***	76.690 ***	86.356	74.866
Number of obs.	264 ***	264 ***	264	264	264 ***	264 ***
LR test: χ^2			0.29	7.19	0.20	5.37
LR test: Prob > χ^2			0.59	0.01	0.66	0.02

While the probability to aspire to the highest degree only slightly increases with the level of PCI and is characterized by a high margin of error, the probability that students expect to complete ABI significantly increases with increasing levels of PCI. Summing up, our data suggests that students' aspirations are not systematically related to the level of interaction with their parents, but that higher levels of PCI are significantly related to higher probabilities to expect to eventually complete the highest educational level.

In a next step, binary response models are estimated that include variables that reflect family language practices instead of a single variable that reflects whether students have a migration background or not (table 2).

Figure 2: Predicted probabilities to aspire and expect to complete ABI by variation in PCI



As above, parental aspirations and students' German skills are significantly related to the probability to aspire and expect to attain the highest educational level (models 1-3B). The data further reveals that the probability of bilingual HL students to aspire to the highest educational level significantly exceeds that of natives, but that no significant differences can be observed between natives and the other two groups. While the difference between natives and bilingual HL and bilingual German students is not significant regarding the probability to eventually attain the highest educational level, the coefficients indicate – in line with our descriptive results – that immigrant-background students from families that predominantly use German have a significantly lower probability to expect to complete the highest educational level than natives. Correspondingly, adding variables that reflect the family's language usage has significantly increased the explanatory power of the model that explains students' expectations but not of the model to explain students' aspirations.

Additionally including the PCI variables into the models above does not increase the power of the model to explain students' aspirations, but reveals an interesting change in the estimated coefficients in the model to explain adolescents' educational expectations (models 2-3B). As above, higher levels of PCI lead to significantly higher probabilities to expect to complete the highest educational level. With respect to family language usage, probably the most interesting finding is that the negative coefficient estimated for the dummy variable that reflects the family's monolingual German practices becomes insignificant when adding either variable that reflects PCI. This finding strongly suggests that confounding effects have led to the negative and significant coefficient estimated in model 1B (expectations), or

in other words that the negative effect estimated for monolingual German language practices in migrant families can, at least partly, be attributed to lower levels of PCI in this group.

Table 2: Influence of family language practices on students' aspirations and expectations

Student aspirations and expectations	Model 1B		Model 2B: frequency school		Model 3B: index PCI	
	Aspirations	Expectations	Aspirations	Expectations	Aspirations	Expectations
Parents' aspirations	1.864 ***	1.898 ***	1.864 ***	1.915 ***	1.862 ***	1.900 ***
(ref. no 'ABI')	0.280	0.332	0.282	0.339	0.281	0.335
	0.000	0.000	0.000	0.000	0.000	0.000
Sex	-0.056	0.114	-0.550	0.106	-0.058	0.100
(ref. female)	0.206	0.195	0.206	0.197	0.206	0.197
	0.784	0.558	0.790	0.591	0.779	0.611
Books in household	0.390	0.418 **	0.383	0.404 **	0.384	0.390
(ref. < 200)	0.211	0.202	0.212	0.204	0.212	0.204
	0.065	0.038	0.071	0.048	0.070	0.055
German skills	0.037 ***	0.033 ***	0.037 ***	0.034 ***	0.037 ***	0.033 ***
	0.013	0.012	0.013	0.012	0.013	0.012
	0.003	0.005	0.003	0.004	0.003	0.004
Cognitive ability	0.022 **	0.016	0.023 **	0.016	0.022 **	0.015
	0.010	0.009	0.010	0.009	0.010	0.009
	0.028	0.091	0.027	0.081	0.030	0.119
Monolingual German	-0.007	-0.642 **	0.017	-0.560	0.012	-0.586
(ref. natives)	0.307	0.303	0.309	0.309	0.310	0.308
	0.982	0.034	0.956	0.070	0.969	0.057
Bilingual G+	0.375	0.308	0.374	0.315	0.377	0.304
(ref. natives)	0.250	0.238	0.250	0.240	0.251	0.240
	0.134	0.196	0.135	0.188	0.133	0.206
Bilingual HL	0.752 **	0.205	0.794 **	0.341	0.772 **	0.297
(ref. natives)	0.365	0.314	0.372	0.326	0.368	0.321
	0.039	0.514	0.033	0.296	0.036	0.354
Parent-child interaction			0.074	0.280 **	0.061	0.290 **
			0.116	0.116	0.141	0.141
			0.522	0.016	0.665	0.040
Constant	-3.671 ***	-3.720 ***	-4.001 ***	-5.031 ***	-3.905 ***	-4.818 ***
	0.725	0.713	0.895	0.925	0.906	0.907
	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R ²	0.27	0.22	0.27	0.23	0.27	0.23
χ^2	89.760 ***	79.108 ***	90.170 ***	85.240 ***	89.947 ***	83.442 ***
Number of obs.	264	264	264	264	264	264
LR test: χ^2	3.60	9.61	0.41	6.13	0.19	4.33
LR test: Prob > χ^2	0.17	0.01	0.52	0.01	0.67	0.04

4. Summary

Our descriptive analysis has indicated that both parental aspirations and students' aspirations are higher in migrant families than in native families on the one hand, and that the gap between parental aspirations and adolescents' plans and expectations is larger in the migrant population on the other hand. This finding is in line with other empirical research that attests comparatively high aspirations in migrant families, which typically go hand in hand with comparatively low levels of academic performance and probabilities of success (e.g., Becker, 2010). The gap between parents' and their children's aspirations and expectations turned out to be particularly high in migrant families that predominantly use German in parent-adolescent interaction. Our multivariate analyses have revealed that both family language practices and level of PCI significantly influence students' probability to expect to complete the highest educational level. Our results further suggest that the negative and significant effect estimated for the probability to expect to complete the highest educational level in the case of students from monolingual German migrant families can, at least partly, be attributed to lower levels of PCI in this group. This finding is in line with the argumentation above, suggesting that higher levels of parent-child interaction may lead to a more effective transmission of parental aspirations by encouraging constructive forms of behavior on the one hand, and that bilingual language practices may indeed trigger higher aspirations and expectations in the migrant population by facilitating the transmission of parental aspirations for their children's educational attainment on the other hand.

However, it must be considered at this point that the results obtained from the analyses above cannot be generalized to the wider population as the current study is of exploratory nature and not based on a representative sample of students. Students from low social strata are underrepresented in our sample, and selection in terms of an upward bias with respect to students' educational performance may play a role. Particularly low performing students may have dropped out of the general school system after grade 9 and are hence not included the data we collected from 10th graders. Moreover, educational aspirations and subjective probabilities of success as expressed by students have been shown to be highly correlated to the levels of education eventually completed but cannot be interpreted as a reliable predictor of later attainment (e.g., Mau & Bikos, 2000). An empirical analysis of this issue as well as causal inference would require a longitudinal framework. Also, while both variables used to reflect PCI have produced very similar estimates, neither one constitutes a precise measure but a rough proxy of the level of interaction between parents and their children only. While our study attempts to present a more fine-grained analysis of the heterogeneous group of immigrant-background stu-

dents by explicitly accounting for family language practices, analyses that aim at arriving at more generalizable conclusions should use more precise measures based on a larger and more representative sample which allows to include further controls of potential relevance, such as the students' region of origin, and to account for phenomena such as cluster effects.

Notes

1. The first three groups are referred to as students with a migration background in the remainder of this study.
2. German refers to the language usage in the family and not to the students' citizenship.
3. The term bilingual may also refer to students that use more than one heritage language at home.
4. Excluding 'Fachabitur'.
5. Parents' educational level and socioeconomic status were not included in the models above as a fairly high number of students could not provide detailed information on their parents' education or jobs.

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