

Ethnic Concentrations and the Intergenerational Transmission of Language Proficiency

Viktor Lehmann
Leibniz Universität Hannover

November 3, 2015

Outline

1 Motivation

2 Data

3 Sample

4 Econometric Model

5 Results

6 Summary

Introduction

- while the make-up of stocks and flows changes, migration to industrial nations remains strong
- having a good commandment of the host country language is one of the prerequisites for the social integration and the economic success of immigrants
- in many cases: immigrants remain in the host country and start families
- is the next generation able to obtain a sufficiently high level of the host country language?

Introduction

- important determinants of own language proficiency:
 - ▶ language skills of parents (intergenerational transmission of language proficiency)
 - ▶ ethnic concentration
- research question:
does the importance of parental fluency vary by the degree of ethnic concentration?

Endogeneity Issues

- parental language proficiency
 - ▶ German-born children
 - ▶ large set of controls
- ethnic concentration
 - ▶ guest-worker period
 - ▶ large regions

Outline

1 Motivation

2 Data

3 Sample

4 Econometric Model

5 Results

6 Summary

German Microcensus 1982

- large sample of foreigners from guest-worker period and their offsprings
- individual socio-economic information:
education, earnings, working status, year of birth, year of arrival, citizenship etc.
- regional information:
place of residence at planning region (Raumordnungsregion) level and size of municipality
- importantly:
 - ▶ information on language fluency available for immigrants with foreign citizenship
 - ★ interviewer based
 - ★ age 3 and older
 - ★ 0: not at all, 1: bad, 2: intermediate, 3: good

Outline

1 Motivation

2 Data

3 Sample

4 Econometric Model

5 Results

6 Summary

Selection

- 1588 children born in Germany
 - ▶ aged 5-17
 - ▶ parents belong to one of five main ethnicities (Greek, Italian, Yugoslavian, Spanish and Turkish)
 - ▶ father arrived in ethnicity specific time-frame (1955-1973)
 - ▶ father's age at arrival between 18 and 50
 - ▶ mother arrived at the same time or followed after
 - ▶ mothers aged 18 and above at arrival

Outline

1 Motivation

2 Data

3 Sample

4 Econometric Model

5 Results

6 Summary

Regression Equation Estimated by OLS [LPM]

$$G_{ijk}^C = \alpha + \beta_1 G_{ijk}^P + \beta_2 EC_{jk} + \gamma' X_{ijk} + \varepsilon_{ijk}$$

- i, j, k : individual, ethnicity, region
- C, P, R : child, parent, region
- G_{ijk}^C : German proficiency of child
(0: not at all, bad, intermediate, 1: good)
- G_{ijk}^P : German proficiency of parent
(father; mother; father and mother)
- EC_{jk} : ethnic concentration (at planning region level)
- X_{ijk} : child, parental, household and regional characteristics + full set of planning region dummies
- $\alpha, \beta_1, \beta_2, \gamma$: regression coefficients
- ε_{ijk} : error term

Outline

1 Motivation

2 Data

3 Sample

4 Econometric Model

5 Results

6 Summary

Father Specification

	<i>Dependent variable: German fluency of child</i>			
	(1)	(2)	(3)	(4)
German fluency of father	0.242*** (0.030)	0.216*** (0.030)	0.211*** (0.030)	0.210*** (0.029)
Ethnic concentration				-0.015 (0.016)
Child characteristics	No	Yes	Yes	Yes
Father characteristics	No	No	Yes	Yes
Mother characteristics	No	No	No	No
Household characteristics	No	No	Yes	Yes
Regional characteristics	No	No	No	Yes
Planning region dummies	No	No	No	Yes
Observations	1588	1588	1588	1588
R ²	0.074	0.176	0.188	0.289

Note:

*p<0.1; **p<0.05; ***p<0.01

Mother Specification

	<i>Dependent variable: German fluency of child</i>			
	(1)	(2)	(3)	(4)
German fluency of mother	0.295*** (0.031)	0.243*** (0.031)	0.225*** (0.032)	0.224*** (0.032)
Ethnic concentration				-0.014 (0.017)
Child characteristics	No	Yes	Yes	Yes
Father characteristics	No	No	No	No
Mother characteristics	No	No	Yes	Yes
Household characteristics	No	No	Yes	Yes
Regional characteristics	No	No	No	Yes
Planning region dummies	No	No	No	Yes
Observations	1588	1588	1588	1588
R ²	0.097	0.180	0.185	0.284

Note:

*p<0.1; **p<0.05; ***p<0.01

Father and Mother Specification

	<i>Dependent variable: German fluency of child</i>			
	(1)	(2)	(3)	(4)
German fluency of father	0.131*** (0.036)	0.138*** (0.035)	0.146*** (0.034)	0.147*** (0.034)
German fluency of mother	0.221*** (0.038)	0.167*** (0.037)	0.144*** (0.037)	0.144*** (0.038)
Ethnic concentration				-0.014 (0.017)
Child characteristics	No	Yes	Yes	Yes
Father characteristics	No	No	Yes	Yes
Mother characteristics	No	No	Yes	Yes
Household characteristics	No	No	Yes	Yes
Regional characteristics	No	No	No	Yes
Planning region dummies	No	No	No	Yes
Observations	1588	1588	1588	1588
R ²	0.113	0.197	0.210	0.305

Note:

*p<0.1; **p<0.05; ***p<0.01

Interaction Specifications

<i>Dependent variable: German fluency of child</i>			
	(5)	(6)	(7)
German fluency of father	0.094** (0.045)		0.028 (0.065)
German fluency of mother		0.123*** (0.043)	0.100 (0.065)
Ethnic concentration	-0.036** (0.017)	-0.029 (0.019)	-0.044** (0.018)
Interaction father	0.047*** (0.014)		0.047** (0.022)
Interaction mother		0.046*** (0.017)	0.026 (0.027)
Child characteristics	Yes	Yes	Yes
Father characteristics	Yes	No	Yes
Mother characteristics	No	Yes	Yes
Household characteristics	Yes	Yes	Yes
Regional characteristics	Yes	Yes	Yes
Planning region dummies	Yes	Yes	Yes
Observations	1588	1588	1588
R ²	0.295	0.289	0.316

Note:

*p<0.1; **p<0.05; ***p<0.01

Illustration of Interaction Effect: Father

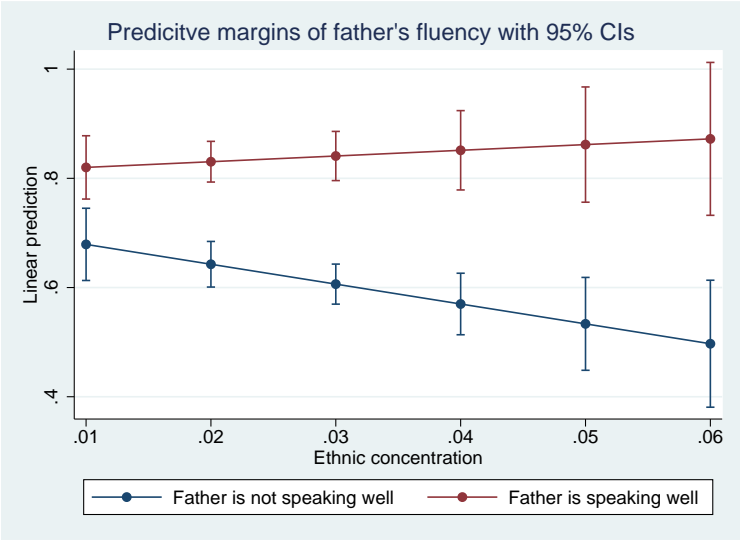


Illustration of Interaction Effect: Father

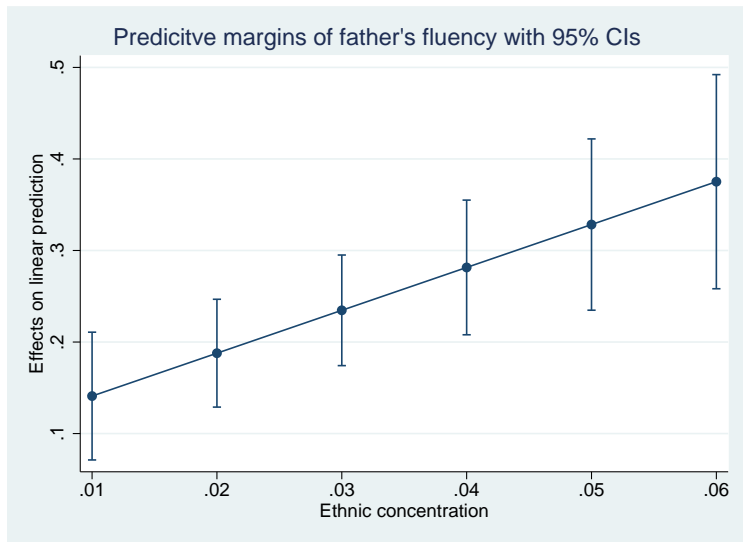


Illustration of Interaction Effect: Mother

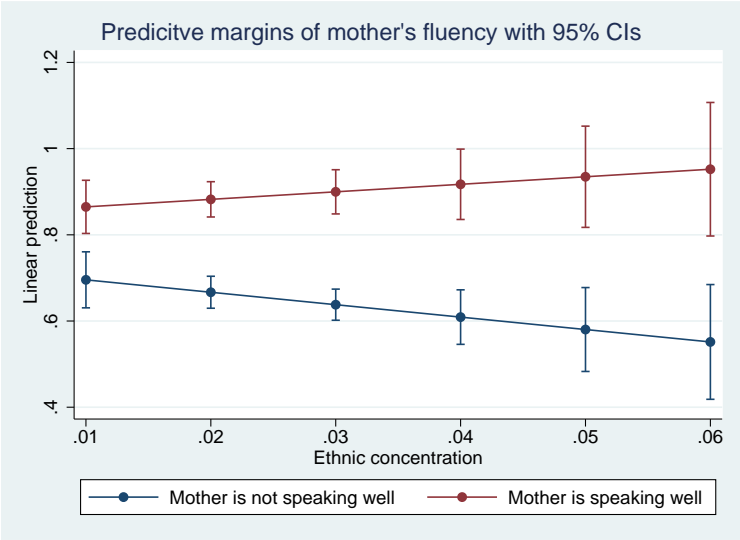


Illustration of Interaction Effect: Mother

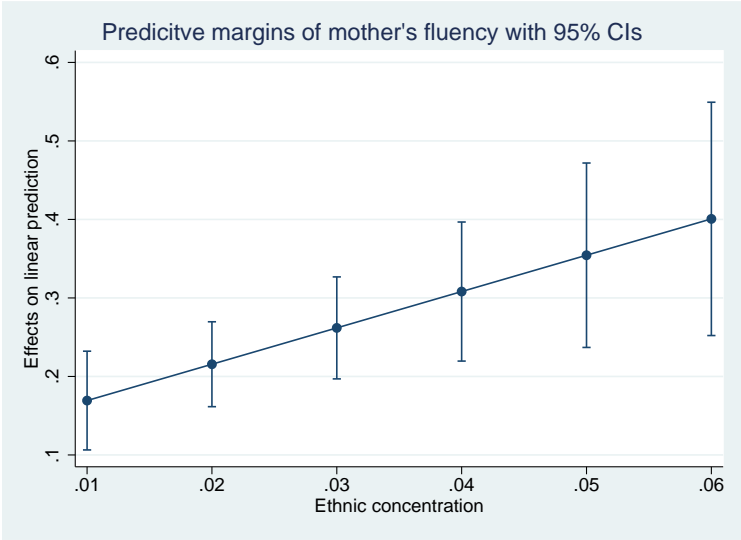


Illustration of Interaction Effect: Father and Mother

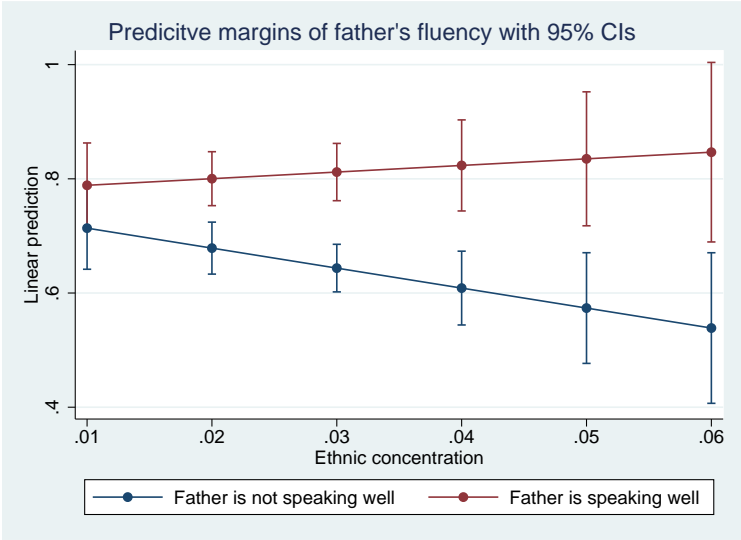


Illustration of Interaction Effect: Father and Mother

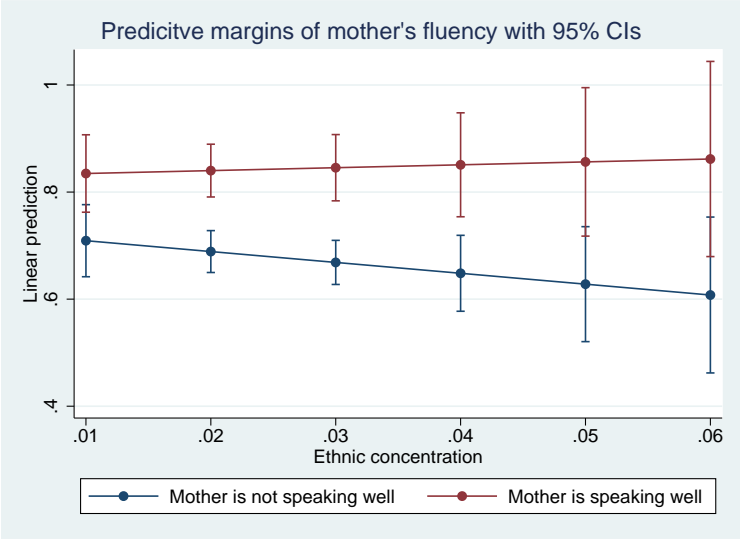
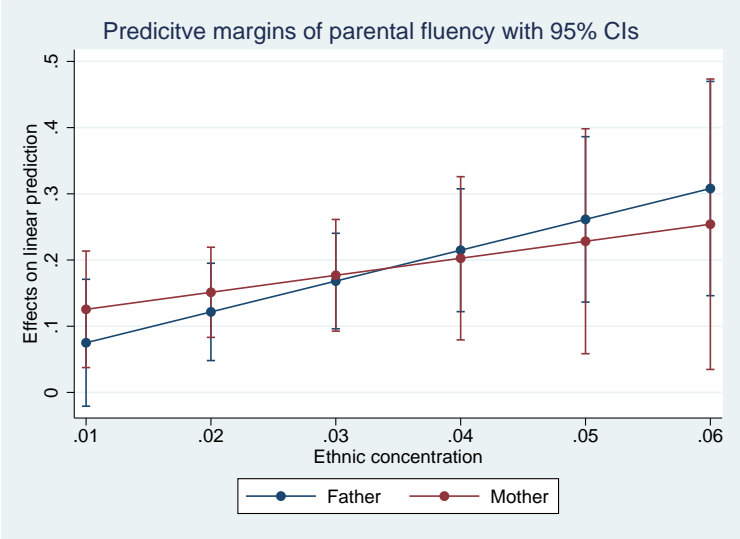


Illustration of Interaction Effect: Father and Mother



Outline

1 Motivation

2 Data

3 Sample

4 Econometric Model

5 Results

6 Summary

Summary and Conclusion

- effect of parental language fluency on child's language fluency...
 - ▶ positive and sizeable
 - ▶ is larger in more ethnically concentrated regions
 - ▶ excluding ethnic concentrations based on fewer than 20 observations does not alter the results
 - ▶ marginal effects obtained by logit and probit very similar

Implication:

Well-speaking parents can compensate for the detrimental effect of a relatively high ethnic concentration on language proficiency of their children.

or

Children in ethnically concentrated areas have a higher probability of lagging behind in terms of language skills if parental fluency is poor.

Thank you for your attention!

Suggestions?