

Capitalizing on multilingualism

Results of DESI - a large scale assessment study on language learning in Germany

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1. **Multilingual environments**: how do they influence language acquisition?
2. **Vitality** of the first language acquired: does it matter when learning a second or foreign language?
3. The **composition** of students in the classroom: do multilingual students influence the learning results of all students in the class ?

Europe aims at multilingual citizens

- Mother tongue + 2
- Key qualification for the individual and the society
- Immigrants live in contexts which offer and demand the acquisition of two languages at least
- Do they approach the European ideal?
- Are they competent in their first language acquired + in German as the language of instruction + in English as a foreign language taught at school?

Language acquisition testing

- Rarely a research question in large scale studies based on tests of language proficiency
- No large scale assessment results on foreign language acquisition
- PISA: Reading literacy referring to the language of instruction. But: reading literacy is not a sufficient indicator of a more general language competence

Multilingual environments: how do they influence language acquisition?

- Negative, positive, neutral effects are reported
- Many linguistic arguments argue in favour of the positive effects of multilingualism on language acquisition.
- Special attention to social and family background variables is important
- Hypothesis: Simultaneous and successive multilinguals surpass monolinguals in foreign language acquisition proficiency tests

Achievement test results of students with migratory background

- The learning achievements of students with migratory background at the end of ISCED 2 (9th graders): far behind the achievements of non-migrant students
- Strong relationship between status of migration, SES and achievement tests
- Hypothesis: Students with migratory background score low in language proficiency tests

Method

- **DESI: D**eutsch-**E**nglisch-**S**chülerleistungen-**I**nternational = International Study of Students' Achievements in German and English
- Realized by a multi-disciplinary consortium of members of 8 universities, the German Institute for International Educational Research (DIPF) being the responsible agency
- Data collected 2003 - 2004 in all German federal states on behalf of the Federal Ministers of Education
- National regional and school form stratified representative sample of 10.639 9th grade students, 219 schools, 2 classes each.

Method

- Assessment instruments developed and IRT-scaled on receptive and productive language skills in German and English
- specific skills combined to one language measure for German and English respectively
- Questionnaire on background variables, language biography, psychological and instructional variables

Method

- Three groups:
 - **monolingual students** who acquired German as the first language (81%),
 - students who acquired another language than German at first and acquired German later – **successive multilinguals** (13%),
 - students who acquired German plus another language as first languages – **simultaneous multilinguals** (6%).

Question: „Which language(s) did you acquire first?“

Relative percentages of language groups according to first language(s) acquired

First language	Language groups						
	Turkish	Russian	Polish	Southern slavic	English	others	
Not German	27	27	8	3	4	31	100
Multi-lingual	17	13	11	6	15	38	100

Relative percentages of first language groups according to migration background.

First language	Migration background				
	1 st generation	2 nd generation	One parent foreign born	Both parents born in Germany	
German	1	1	6	92	100
Not German	54	32	8	5	100
Multilingual	19	28	32	21	100

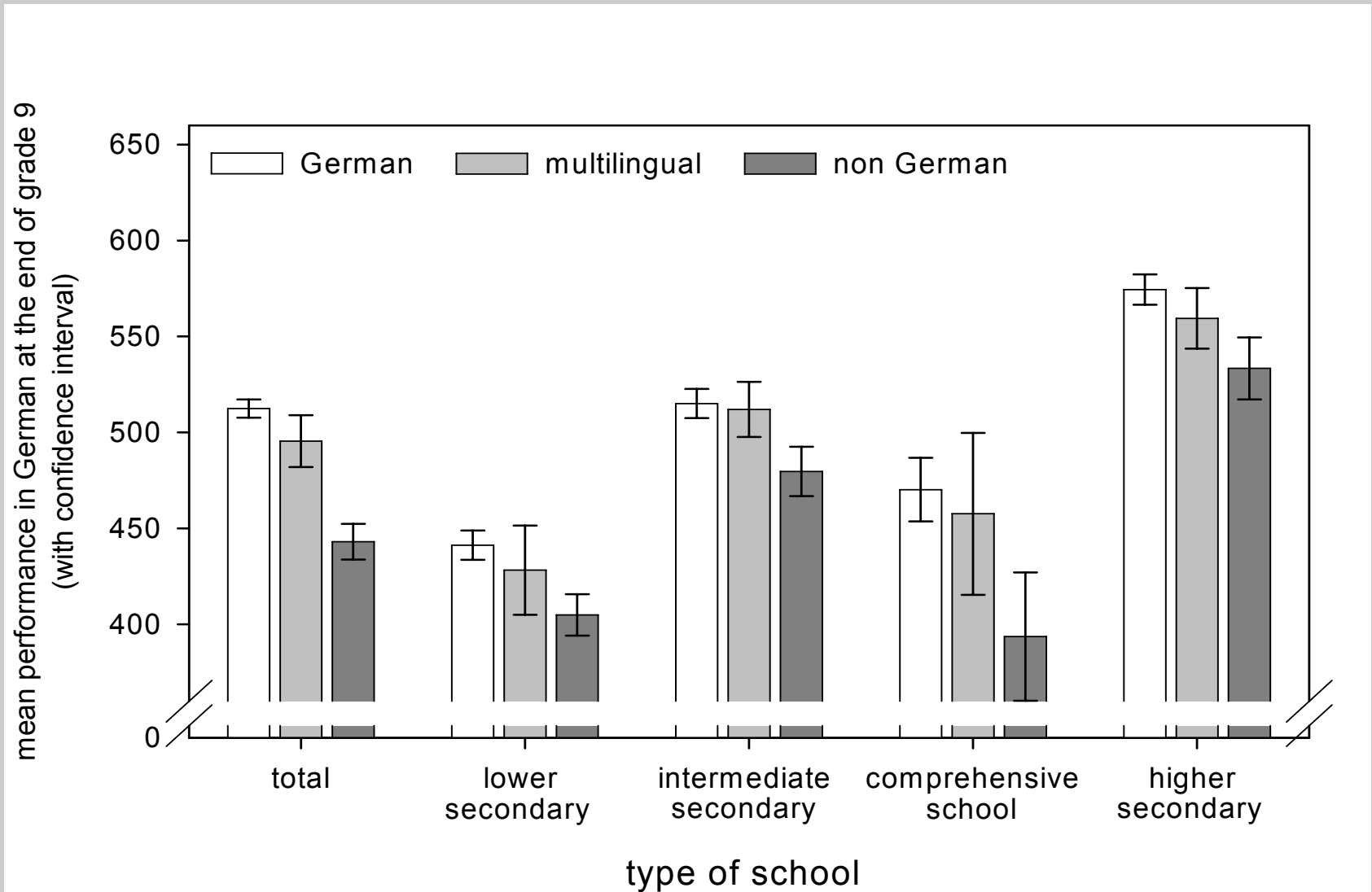
Relative percentage of students with different first languages according to school form

First language	School form			
	Hauptschule, IGS lower secondary, comprehensive school	Realschule intermediate secondary <i>USWUSWUSW U</i>	Gymnasium higher secondary <i>USW USW USW U</i>	
German	33	38	31	100
Not German	58	27	15	100
Multilingual	39	32	29	100

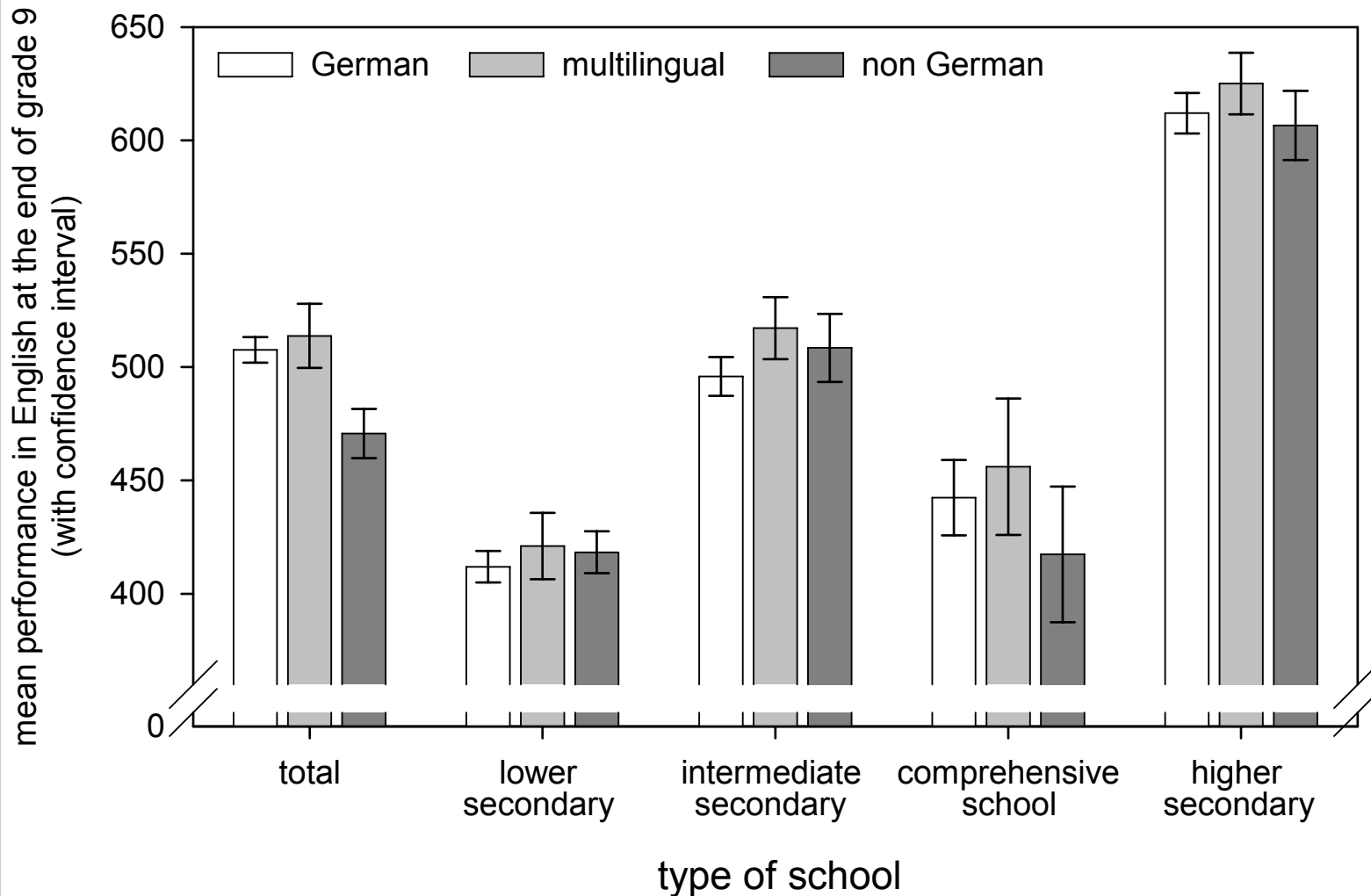
1.

Multilingual environments: how do they influence language acquisition?

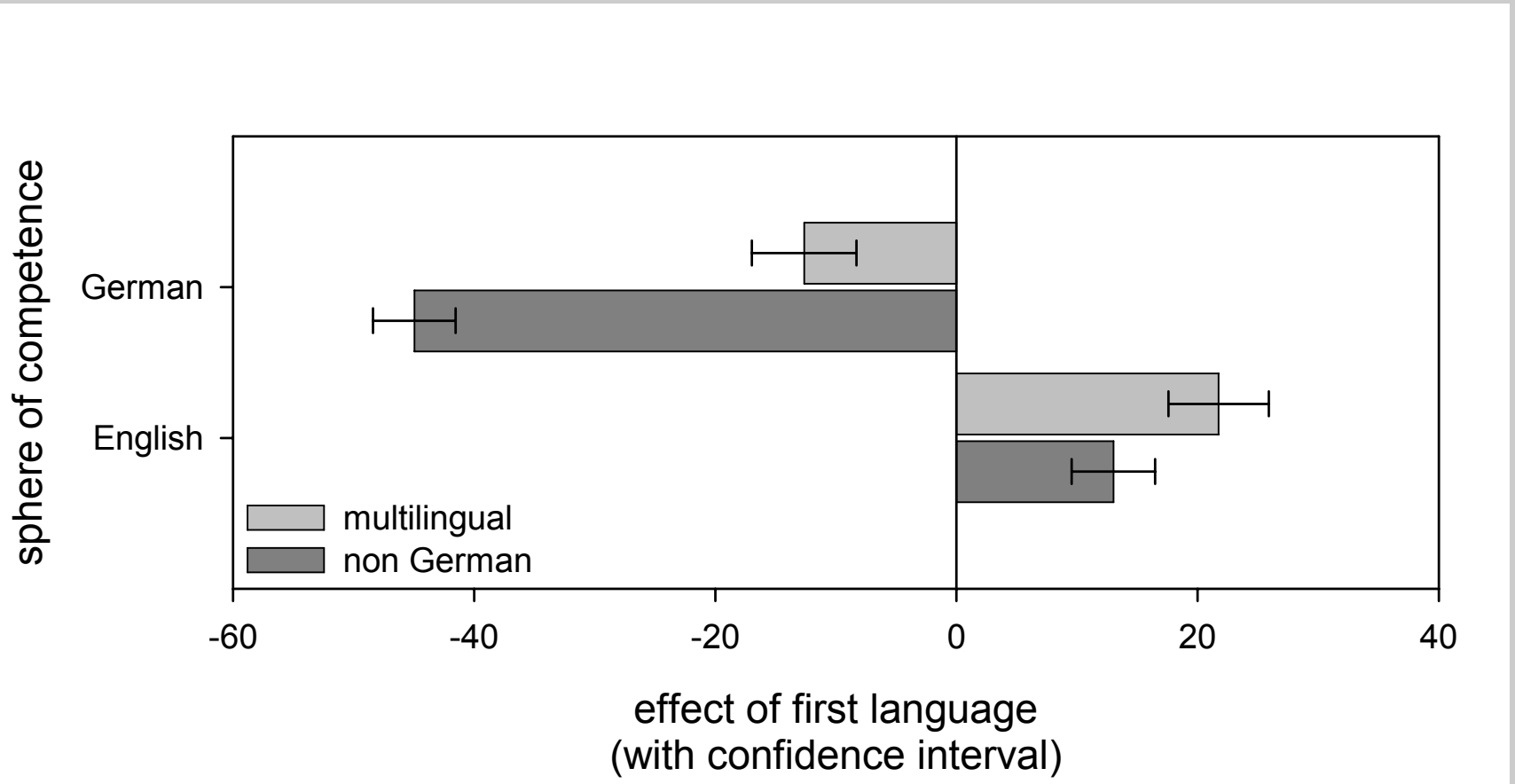
Total test scores in German according to first language(s) acquired



Total test scores in English according to first language(s) acquired

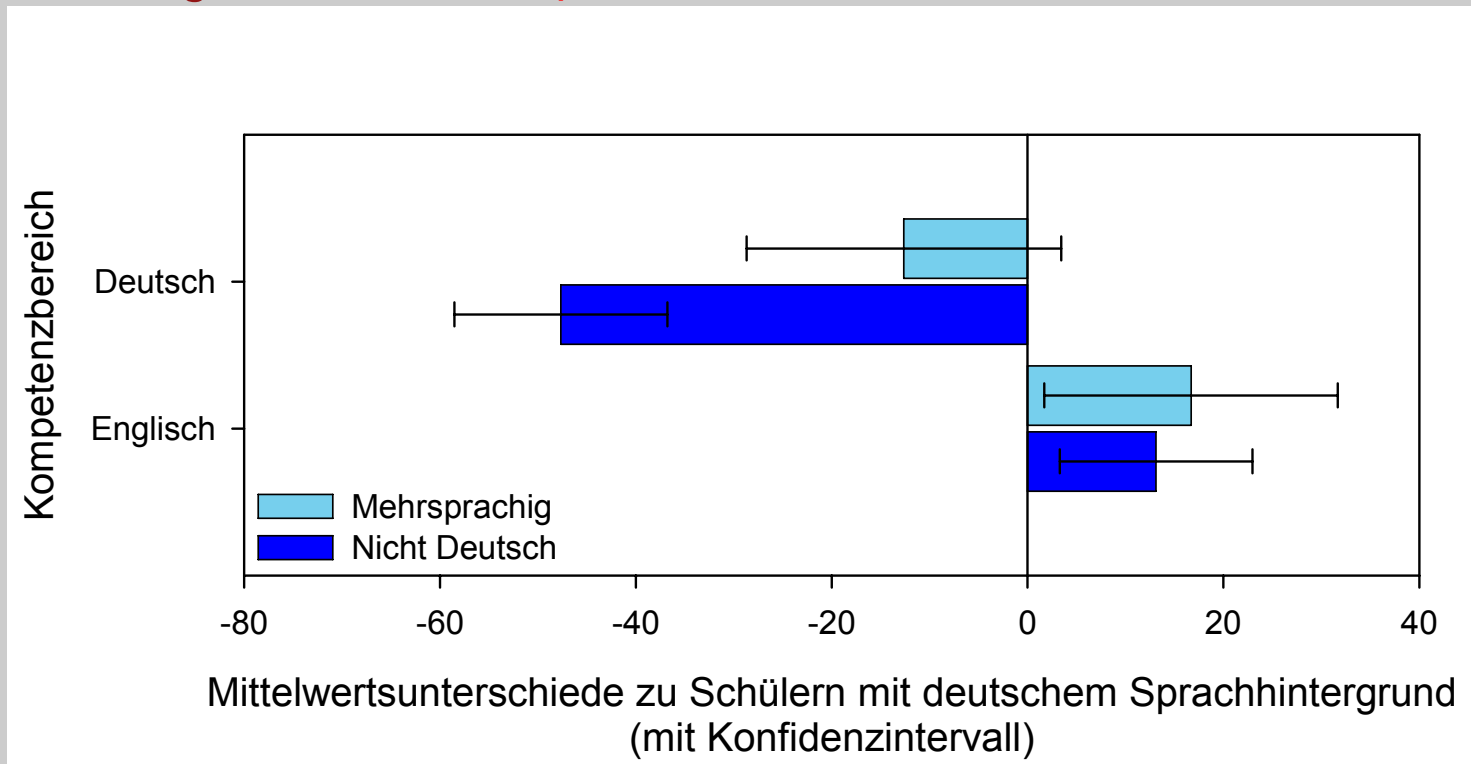


Differences of total test scores in German and English controlling for school form, SES, basic cognitive abilities and gender according to first language(s) acquired



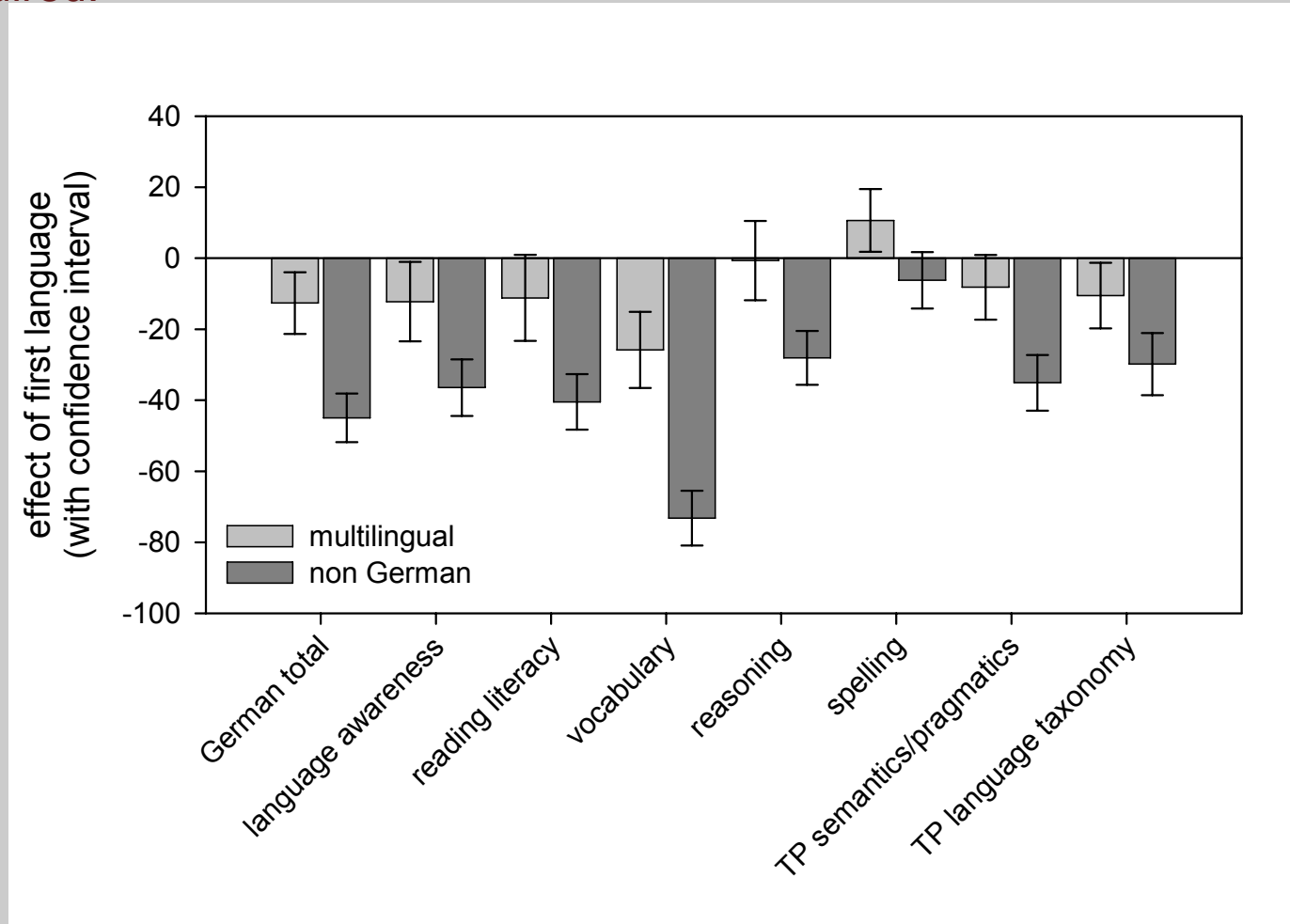
Differences of total test scores (monolingual Germans = 0)

Gesamtleistungen im Deutschen und Englischen und sprachlicher Hintergrund in der Hauptschule



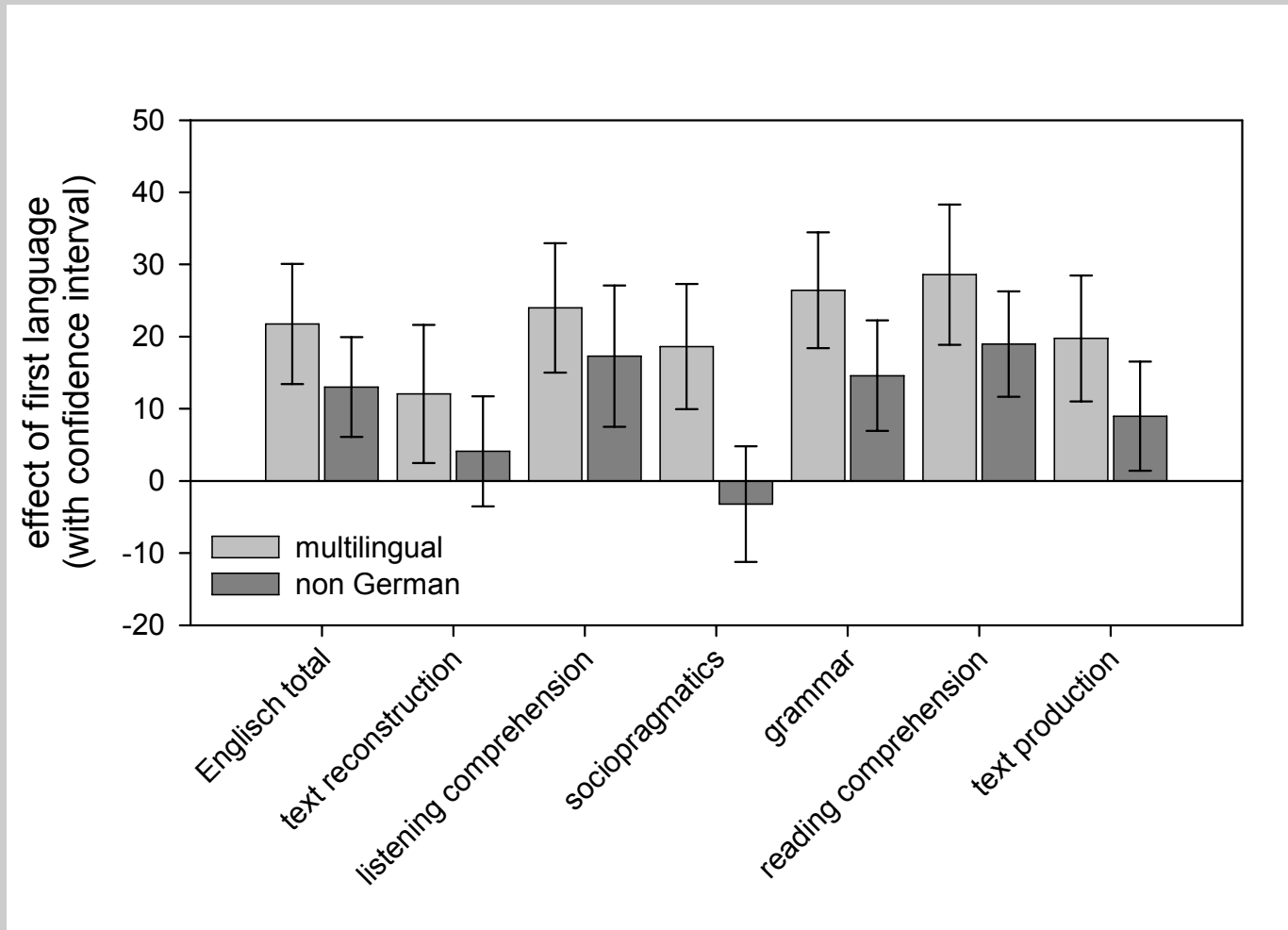
Effekte nicht-deutschen sprachlichen Hintergrunds im Kontrast zu rein deutschsprachigen Schülern in der Hauptschule unter Kontrolle von sozioökonomischem Status und kognitiven Grundfähigkeiten.

Differences of specific test scores in **German** controlling for school form, SES, basic cognitive abilities and gender according to first language(s) acquired.



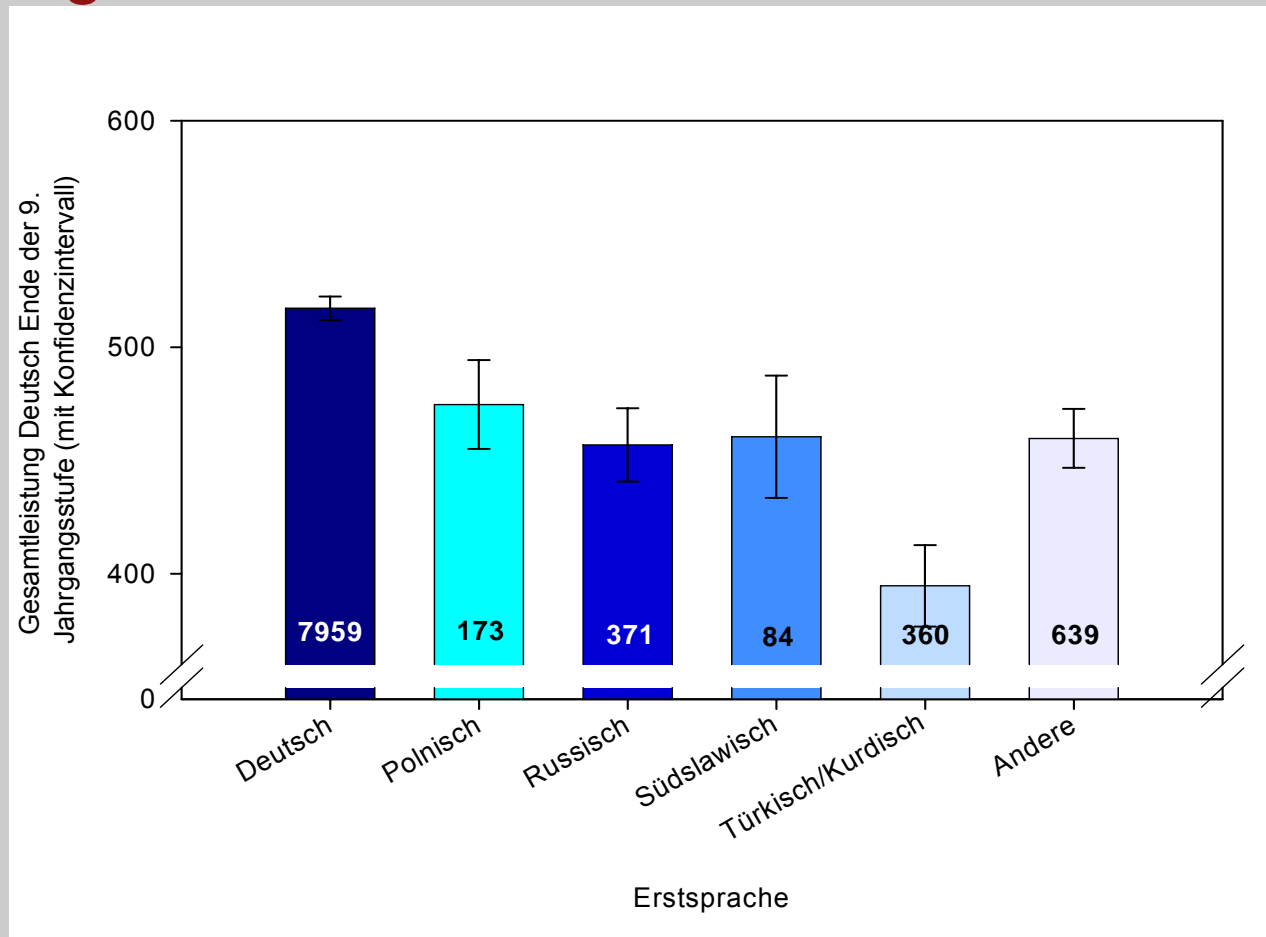
Differences of specific test scores (monolingual Germans = 0)

Differences of specific test scores in **English** controlling for school form, SES, basic cognitive abilities and gender according to first language(s) acquired.

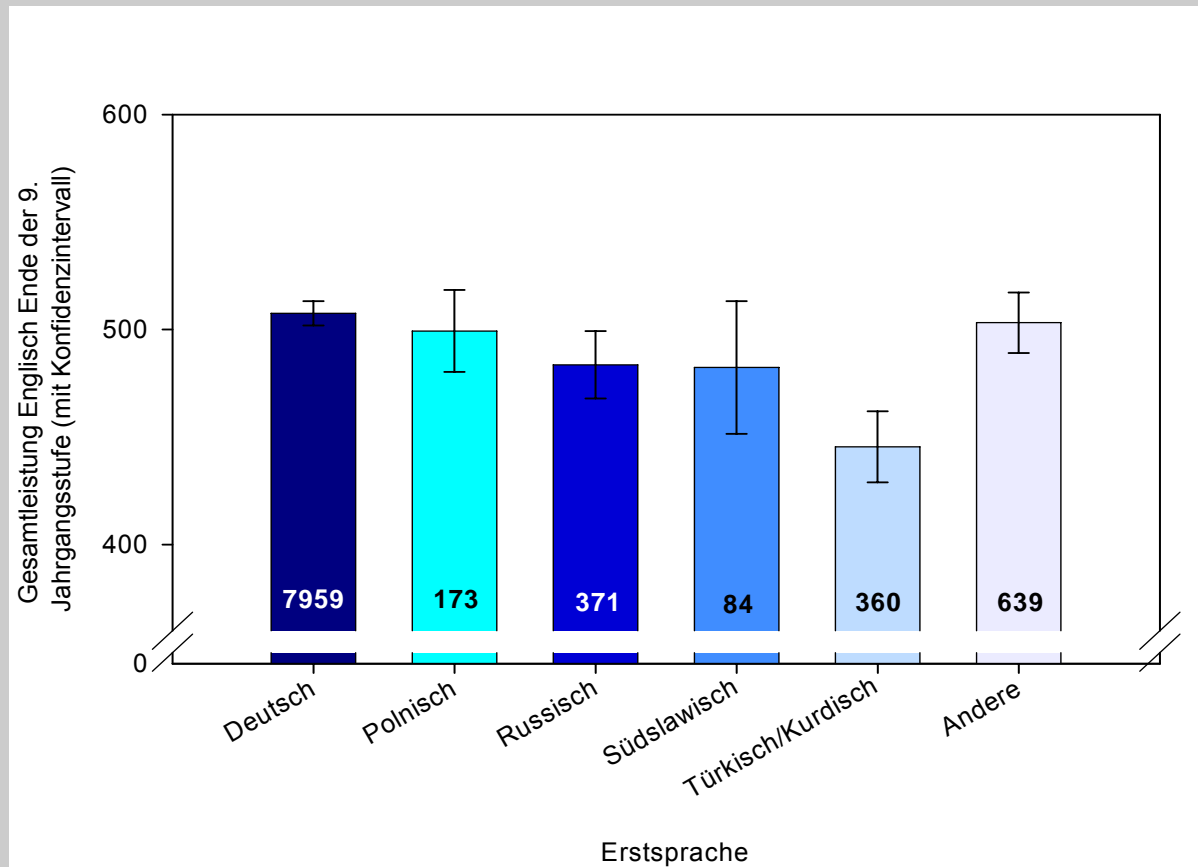


Differences of specific test scores (monolingual Germans = 0)

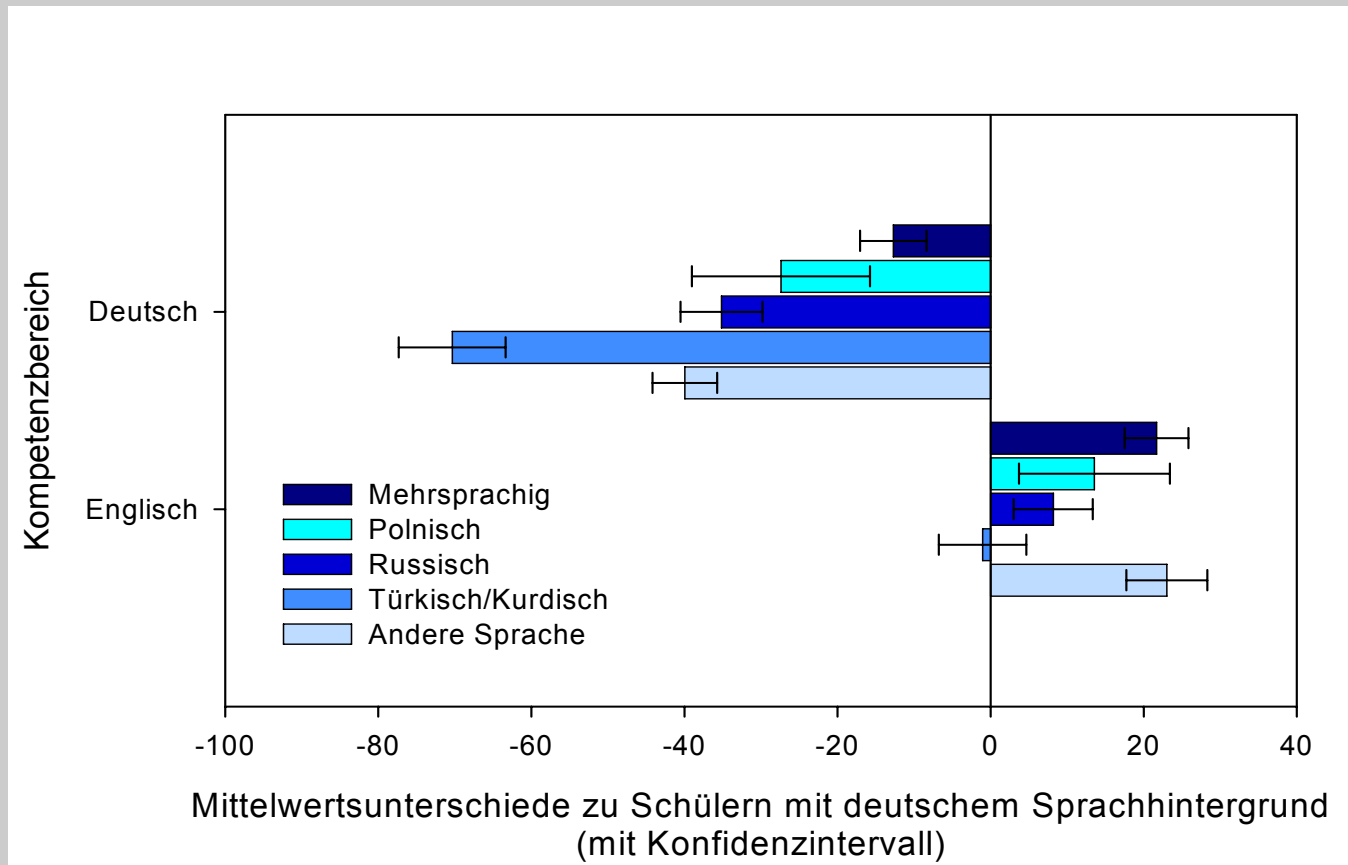
Total test scores in German according to language groupings



Total test scores in English according to language groupings



Differences of total test scores in German and English controlling for school form, SES, basic cognitive abilities and gender according to first language(s) acquired



2.

Vitality of the first language acquired:
does it matter concerning language proficiency
tests in German and in English?

Hypotheses

If the postulate of the interdependency of language acquisition holds, then positive relationships between the first and the next acquired language proficiencies should be expected.

If the vital use of the first language impedes the acquisition of the next ones, then negative relationships should be expected,

provided that the first language is not the language of instruction and is not as highly estimated as English
e.g.

Method

Language tests based on sound psychometric criteria which rely upon the CEFL are scarce.

Most studies work with self-assessments.

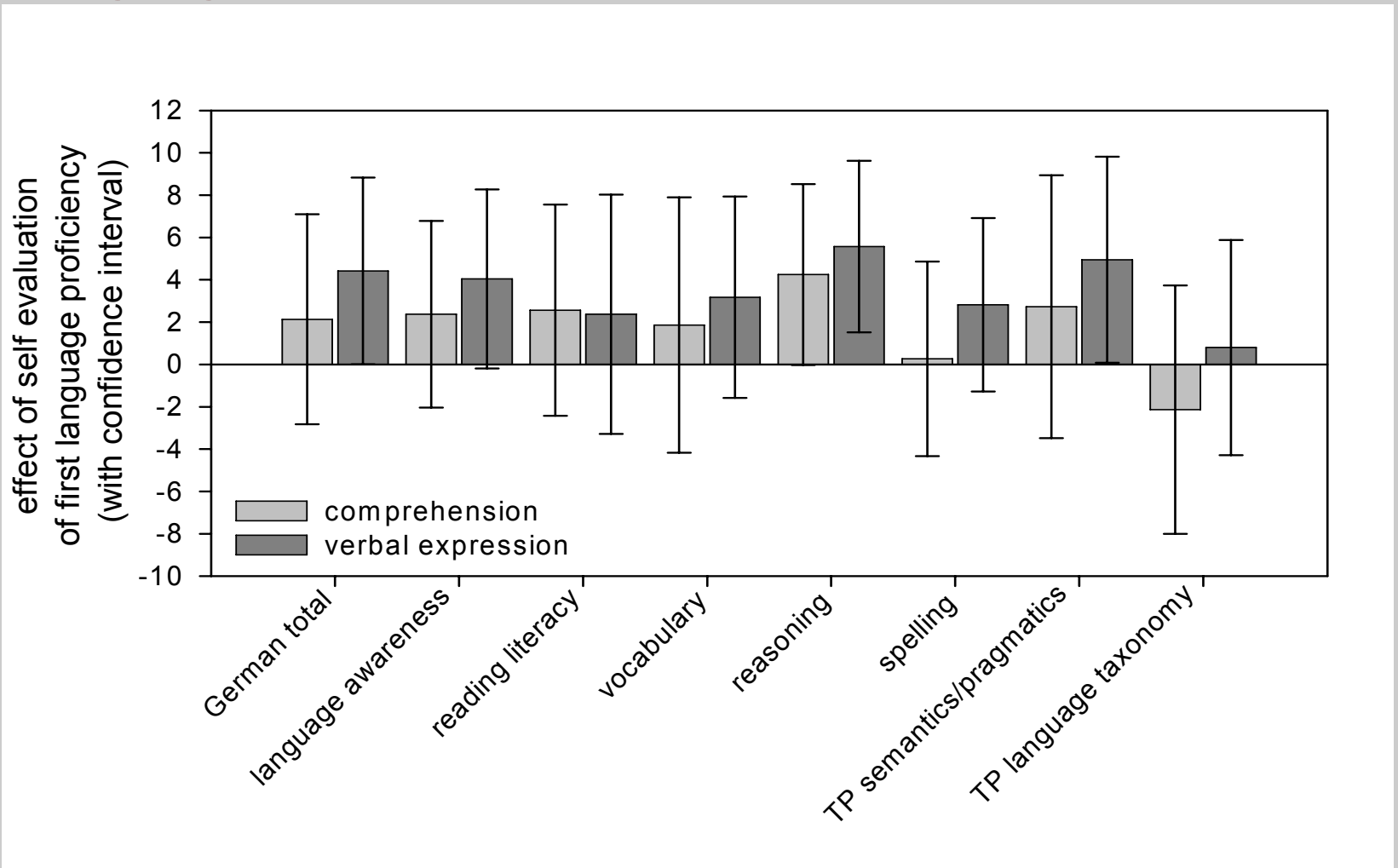
Verstehen (can do)

1. Ich verstehe praktisch alle schwierigen Texte mühelos.
2. Ich kann die meisten schwierigen Texte, auch wenn sie länger sind, verstehen. Ich kann auch Andeutungen verstehen und „zwischen den Zeilen“ lesen.
3. Ich kann die Hauptinhalte auch bei schwierigen Texten verstehen.
4. Ich kann das Wichtigste verstehen, was die Leute im Radio oder im Fernsehen sagen oder was in der Zeitung steht, wenn es um mir vertraute Dinge aus Schule, Freizeit usw. geht.
5. Ich kann einfache Sätze und häufig gebrauchte Ausdrücke verstehen.
6. Ich kann nur ganz einfache Sätze verstehen.
7. Ich verstehe kaum etwas.

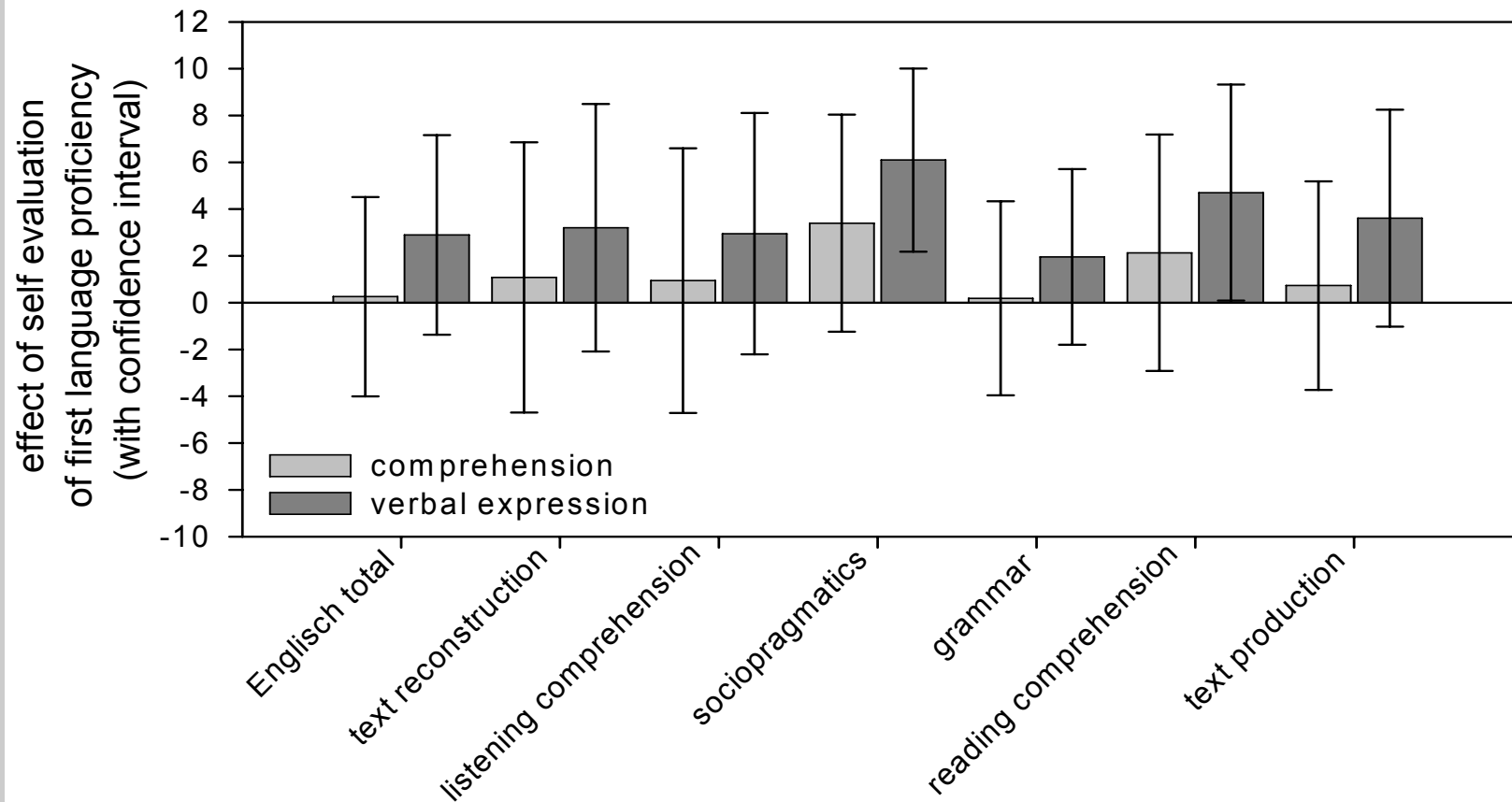
Mich ausdrücken (can do ...)

1. Ich kann mich spontan, sehr flüssig und genau ausdrücken und auch bei schwierigen Themen feinere Bedeutungsunterschiede deutlich machen.
2. Ich kann mich bei schwierigen Themen klar, strukturiert und ausführlich äußern ohne dabei öfter nach Wörtern suchen zu müssen.
3. Ich kann mich zu den meisten Themen klar und genau ausdrücken.
4. Ich kann mich zusammenhängend über vertraute Dinge und meine persönlichen Interessen unterhalten.
5. Ich kann mich in Situationen verständigen, in denen es um einen Austausch von Informationen über mir bekannte Dinge geht.
6. Ich kann mich auf einfache Art verständigen, wenn die Personen, mit denen ich spreche langsam und deutlich sprechen und bereit sind, mir zu helfen.
7. Ich kann mich kaum verständigen.

Regression coefficients of **German** language competences on first language self-assessment



Regression coefficients of English language competences on first language self-assessment



3.

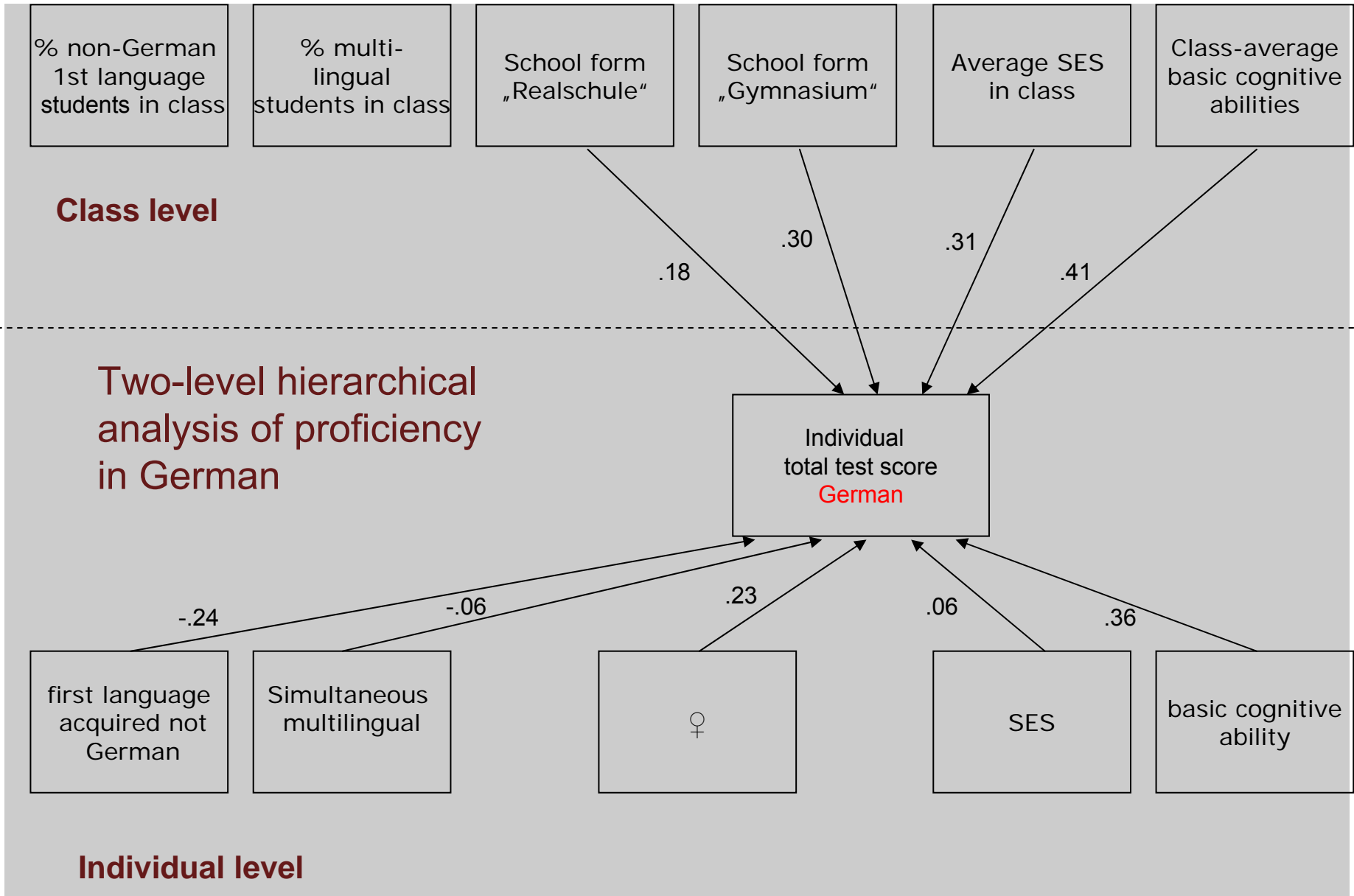
Does the presence of multilingual students in the classroom exert influences on the learning results of all students in the class ?

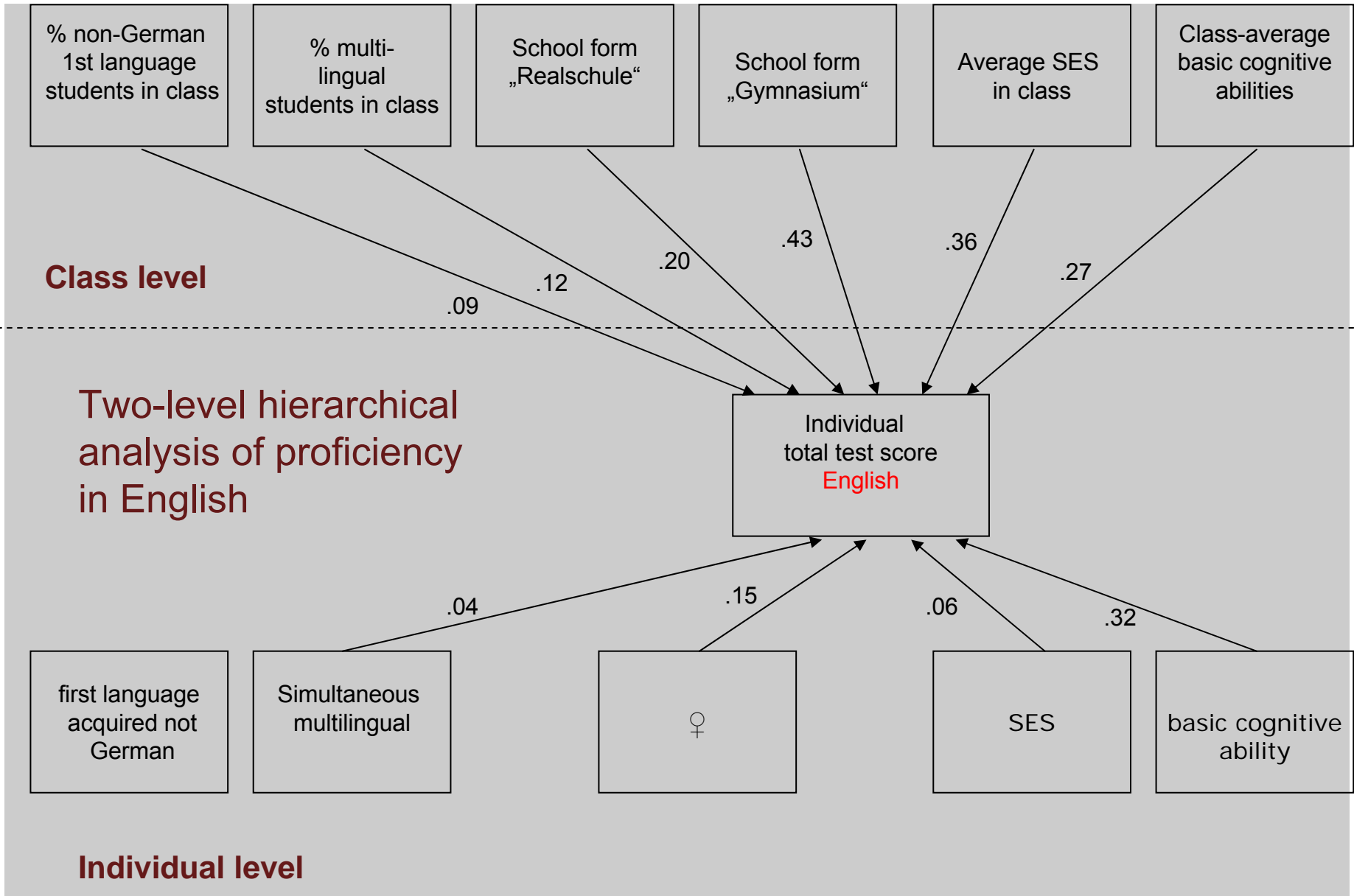
Does the heterogeneity in language proficiency in the class lower the test achievements in German and raise the scores in English according to the previously shown results?

Two-level hierarchical modelling

Effects of the composition of the class (class level):

Are there any effects beyond the individual characteristics (individual level) which explain for differences in language proficiency test achievements?





Conclusions

1. The **influence of multilingual environments** on second and foreign language acquisition differs according to simultaneous or successive multilingualism as far as the school context is considered.

Simultaneous multilinguals are more proficient in German as the language of instruction in school than successive multilinguals.

The surprising results are the high proficiency scores of simultaneous multilinguals in English as a foreign language taught in school and – to a lesser degree – of the successive multilinguals if confounding background variables are controlled for.

Conclusions

2. The **vitality of the first language acquired** correspond to the communicative aspects of the proficiency in second and foreign languages.

Conclusions

3. The **presence of multilingual students in the classroom** do not influence the total test scores of all students in German but does so positively in English. The simultaneous multilinguals more than successive multilinguals. This holds if the confounding background variables are controlled for.

Conclusion: Educational significance

- The obvious differences of the results with regard to German and English are possibly accounted for by the different ways “language” is taught in both school subjects.
- There is more weight on explicit language learning in English lessons than in German lessons.
- If German lessons would focus more on the language aspects would then non-German first language students do better?

Conclusion: Educational significance

The educational significance of the results points into the direction to take up the capacities of students who are able to communicate relying upon more than one language from early childhood on

not only in order to strengthen their own abilities but also to promote the language abilities of their monolingual peers.