

Explaining Germans' Segregation Preferences: A Factorial Survey Approach on the Role of Immigrant Group Size, Intergroup Contact and Anti- Immigrant Prejudice

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Overview

- Individual decisions of majority members contribute to residential and school segregation between majority and minority members, but the roots of these decisions are poorly understood.
- Do majority members avoid residential areas or schools with a larger proportion of minority members because of anti-minority prejudice, or is minority proportion a proxy for socioeconomic factors that signal a lower quality of life or education?
- We extend U.S. evidence for the prejudice explanation using two factorial survey studies with representative samples of the adult population in Germany.

Overview

- In study 1, respondents indicated a lower likelihood of renting an apartment in a neighborhood with a larger proportion of minority members, although the socioeconomic factors 'housing quality' and 'crime rate' were held constant.
- In study 2, respondents indicated a lower likelihood of enrolling their child at a school with a larger proportion of minority students.
- These segregation preferences were reduced for respondents who had more frequent contact with immigrants.
- This moderator effect was mediated by reductions of anti-immigrant prejudice.

Introduction

- Why do members of ethnic minorities live in different areas and attend different schools than majority members?
- Among the many causes of ethnic segregation that have been discussed so far, majority members' preferences for segregation have been especially difficult to pin down.
- A basic assumption in this literature is that majority members perceive residential areas with a larger proportion of minorities as more negative (Charles 2003; Semyonov, Glikman, and Krysan 2007).
- As a consequence, majority members prefer to live in the suburbs, for example, rather than in metropolitan areas with a more diverse composition (Krysan 2002).

Introduction

- Also, levels of ethnic/racial residential segregation in the United States are commonly much higher than levels of segregation between German citizens and immigrants in Germany (Bolt, Philipps, and van Kempen 2010).
- The German research setting is therefore an interesting case to gain insights into the cross-cultural generalizability of previous results from studies conducted in the context of race relations in the United States (Semyonov et al. 2007).
- Our final contribution is methodological. Using a factorial survey approach (Rossi and Nock 1982; Krysan et al. 2009; Wallander 2009), we embed a within-subject experimental design (West, Biesanz, and Kwok 2008) into a large national-level survey.
- We then analyze these data taking advantage of two-level structural equation modeling (SEM) (Muthén and Asparouhov 2011).
- Unlike conventional hierarchical linear regression modeling techniques (Raudenbush and Bryk 2002), two-level SEM allows for a simultaneous test of the direct, moderating, and mediating relations that our theoretical model implies (Preacher, Zyphur, and Zhang 2010).

Method & Data

- Data for the subsequent analyses were collected using a web survey conducted by a commercial survey company in October 2008.
- The data represent a stratified quota sample of 1,032 German citizens (paid panelists) aged 18 to 64 years, without migration background.
- The participants first answered several demographic questions and were then randomized to complete either the residential preferences (n = 509) or the school preferences (n = 523) experiment. This data set combined several desirable features.
- First, web surveys are self-administered and therefore offer respondents a relatively large amount of privacy (Chang and Krosnick 2009).
- It therefore seems reasonable to expect that social desirability bias (Spector 2004) in the data in this study was minimized.

Method & Data

- Furthermore, because all information was presented visually, respondents were able to reread the multidimensional descriptions and subsequent questions regarding residential areas or schools.
- Presumably, this reduced respondents' cognitive load and thereby facilitated accurate responding. Finally, the national scope and sample size of the data set adds to the external validity of the results and facilitates the detection of the moderating and mediating relationships that our theoretical model suggests.
- Preliminary analyses indicated that the distribution of respondents' sex, age, and education deviated only marginally from known census figures (Statistisches Bundesamt 2008).
- Both samples showed a small overrepresentation of younger and better educated people but no deviation in terms of gender or place of residence.

Method & Data (Factorial Design)

Dependent variable: Stated likelihood of renting an apartment in the given neighborhood.

- For each neighborhood described in the vignettes, we measured participants' stated likelihood of renting an apartment and moving there. Participants indicated how attractive or unattractive they found it (1 = very unattractive, 4 = very attractive) and how likely it would be that they would eventually rent an apartment in this area (1 = very unlikely, 4 = very likely).
- Responses to these items were strongly correlated ($r = .92$; $p < .001$).
- Higher values indicate a greater stated likelihood of renting an apartment in the neighborhood described in the given vignette.

Method & Data (Factorial Design)

School choice experiment

- In the school choice experiment, respondents were initially presented with the following statement: “Imagine you had a child for whom you now needed to choose a secondary school. There are several secondary schools in your area, all of which could be easily reached by your child.”
- They then viewed and evaluated 12 vignettes in randomized order. In this experiment, we operationalized our factor of central interest—minority proportion—using the school proportion of students with an immigration background.
- Additionally, for each school the level of academic quality and the availability of extracurricular activities were presented (Clausen 2006; Karsten et al. 2003).
- In sum, the vignettes resulted from the combination of the levels of *minority proportion* (‘below average’ and ‘above average’), *extracurricular options* (‘fewer’ vs. ‘more than other schools’) and *school quality* (‘below average,’ ‘average,’ and ‘above average’).

Method & Data (Factorial Design)

School choice experiment

- For example, combining the first levels of each factor produced the following vignette:

“In comparison with other schools, this school offers fewer extracurricular options for students to develop their vocational, cultural, and sports interests. In comparison with other schools, the quality of education offered at this school is below average. The school building is new and fully conforms to the standards of modern school buildings [*This information was given to all participants.*] At this school, the number of students from a different ethnic background is below average.”

Method & Data (Factorial Design)

Dependent variable: Stated likelihood of enrolling their child in the given school.

- For each school described in the vignettes, we measured participants' stated likelihood of choosing this hypothetical school for their child.
- Participants indicated how positive or negative they would evaluate the school (1 = very negative, 4 = very positive) and how much they would like to enroll their child at it (1 = would dislike very much, 4 = would like very much).
- Both items were strongly correlated ($r = .93$; $p < .001$), with higher values indicating a greater likelihood of choosing a given school.

Method & Data (Respondents Characteristics)

Interethnic contact

- To measure interethnic contact, we used two established indicators (e.g., Wagner et al. 2006) to assess close (item 1) as well as more mundane personal interethnic contacts (item 2).
- Participants were asked (a) how many of their friends and good acquaintances were immigrants (1 = very few, 4 = many), and (b) how often they currently had personal contact with immigrants in their neighborhood (1 = rarely, 4 = frequently).
- Responses to these items were substantially correlated (study 1: $r = .59$; $p < .001$; study 2: $r = .57$; $p < .001$).
- Higher values indicate more interethnic contact.

Method & Data (Respondents Characteristics)

Anti-immigrant prejudice

- To measure anti-immigrant prejudice, we used a single item covering emotional manifestations of negative interethnic attitudes.
- Participants were asked to indicate how likeable they found most foreigners in Germany (1 = very much; 4 = not at all) Higher values indicate more prejudice.
- A lack of positive emotions towards outgroups as expressed in the above item is also seen to be relatively less prone to social desirability bias (Pettigrew and Meertens 1995).

Analyses

- Our data form a hierarchical two-level data structure in which the responses to specific vignettes are nested in respondents.
- Similar to conventional two-level regression techniques, two-level SEM corrects standard errors for the non-independence of data from the same respondent.
- A unique benefit of this method is its capability to simultaneously examine direct, moderating, and mediating relationships in a single, comprehensive model.
- Furthermore, given multiple observed indicators per construct, two-level SEM can adequately deal with measurement error at the within- and between-respondent level by estimating latent constructs
- We analyzed these data using two-level structural equation modeling (SEM) (Muthén and Asparouhov 2011).

Hypotheses

Three hypotheses are formulated to investigate whether (*Hypothesis 1*), under what conditions (*Hypothesis 2*) and how (*Hypothesis 3*) the size of the immigrant population affects the segregation preferences of majority members':

1. Immigrant group size relates positively to segregation preferences.
2. Interethnic contact moderates the relation between immigrant group size and segregation preferences such that immigrant group size is less strongly and positively related to segregation preferences for natives with more interethnic contact than for those with less interethnic contact.
3. The moderated relationship between interethnic contact and immigrant group size on segregation preferences is mediated by prejudice. We expect that interethnic contact relates negatively to prejudice, while the positive relation between immigrant group size and segregation intentions will be stronger for natives with more prejudice than for those with less

Results

Germans' segregation preferences with regard to residential areas (Study 1)

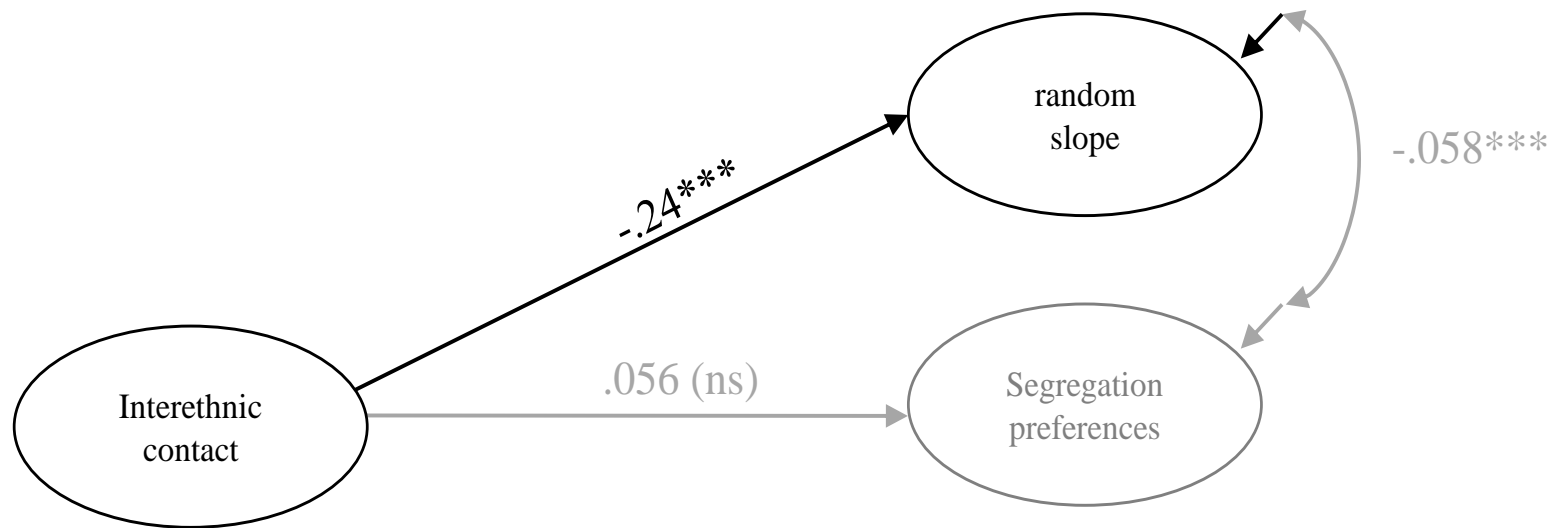
<i>Within-Persons</i>	Model 1		Model 2		Model 3			
	Preferences		Preferences		Preferences		Prejudice	
Housing Quality	.676	(.021)***	.673	(.021)***	.673	(.021)***	---	---
Crime	-.605	(.021)***	-.603	(.021)***	-.603	(.021)***	---	---
Group Size	-.456	(.026)***	-.456	(.026)***	-.456	(.026)***	---	---
<i>Between-Persons</i>								
Interethnic contact	---	---	-.056	(.047)	-.042	(.028)	--.264	(.035)***
Interethnic contact × Immigrant group size	---	---	.240	(.032)***	.119	(.032)***	---	---
Prejudice	---	---	---	---	.055	(.041)	---	---
Prejudice × Immigrant group size	---	---	---	---	-.459	(.048)***	---	---
<i>Indirect effects</i>								
Interethnic contact →prejudice→slope [immigrant group size]	---		---		.121 (.021)***			

Results

Germans' segregation preferences with regard to schools (Study 2)

<i>Within-Persons</i>	Model 1		Model 2		Model 3			
	Preferences		Preferences		Preferences		Prejudice	
Extracurricular activities	.536	(.018)***	.508	(.018)***	.508	(.018)***	---	---
Low Quality	-.619	(.021)***	-.541	(.021)***	-.541	(.021)***	---	---
High Quality	.609	(.022)***	.572	(.022)***	.572	(.022)***		
Group Size	-.188	(.020)***	-.188	(.020)***	-.188	(.020)***	---	---
<i>Between-Persons</i>								
Interethnic contact	---	---	-.075	(.040)	-.057	(.039)	-.401	(.053)***
Interethnic contact × Immigrant group size	---	---	.10	(.039)*	.006	(.047)	---	---
Prejudice	---	---	---	---	.045	(.035)	---	---
Prejudice × Immigrant group size	---	---	---	---	-.230	(.045)***	---	---
<i>Indirect effects</i>								
Interethnic contact →prejudice→slope [immigrant group size]	---		---		.093 (.023)***			

Figure 1a: Results model 2



Between-Respondents

Within-Respondents

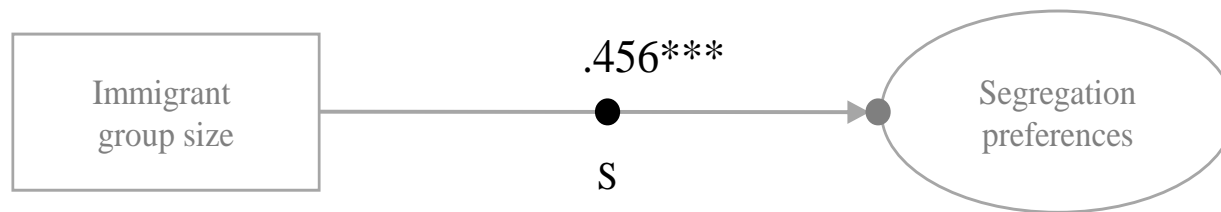
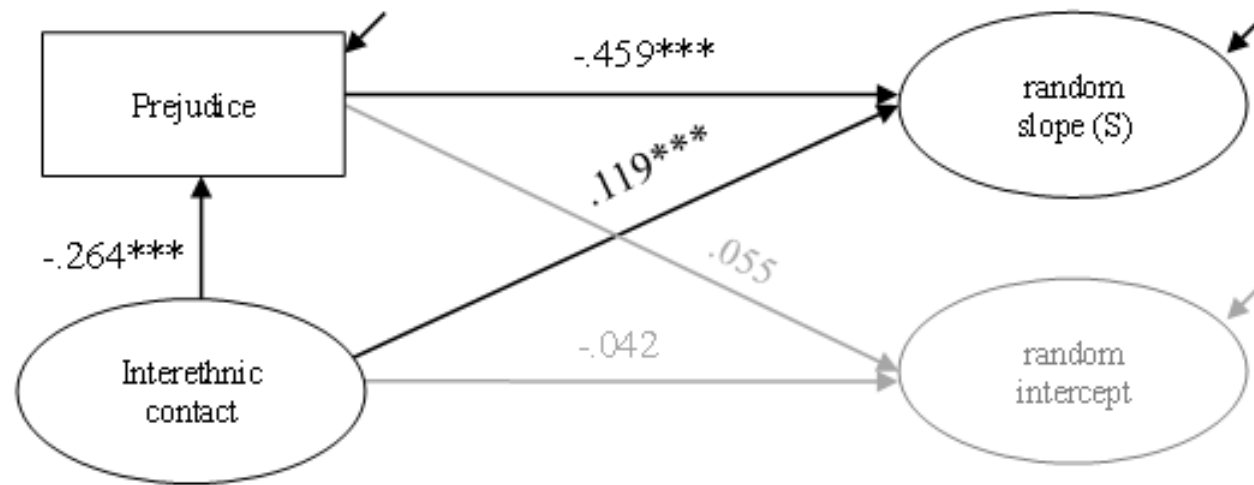


Figure 1b: Results model 3



Between-Respondents

Within-Respondents

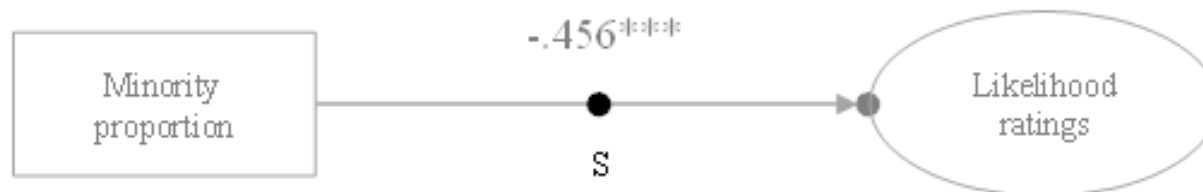
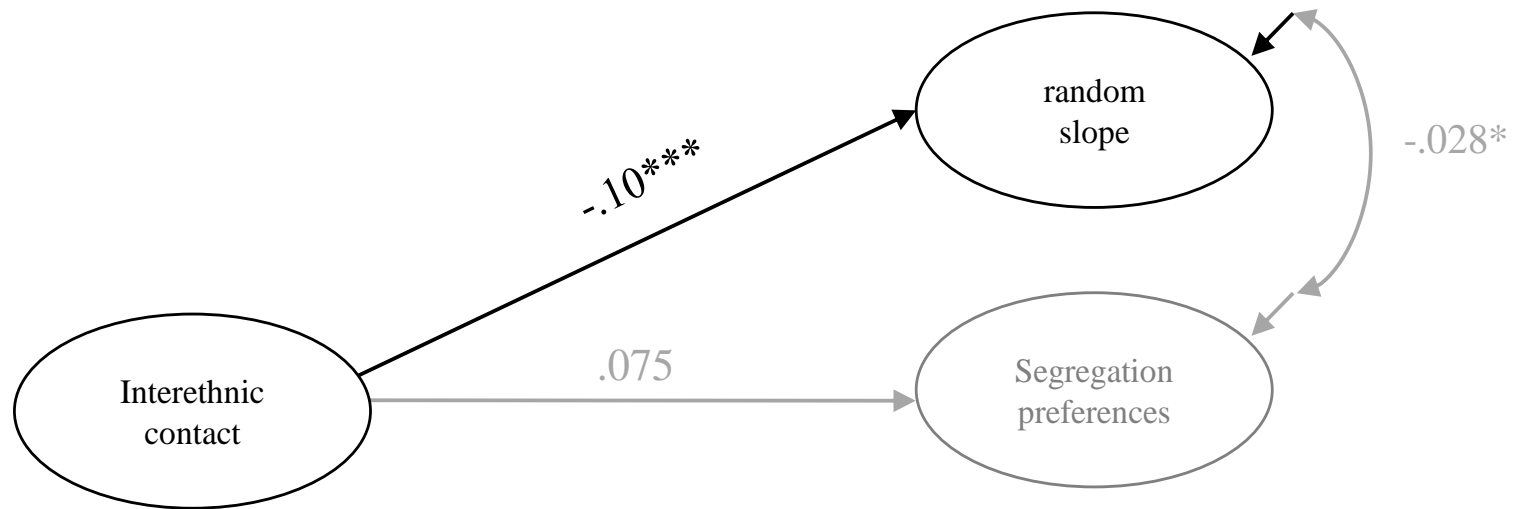


Figure 2a: Results model 2.



Between-Respondents

Within-Respondents

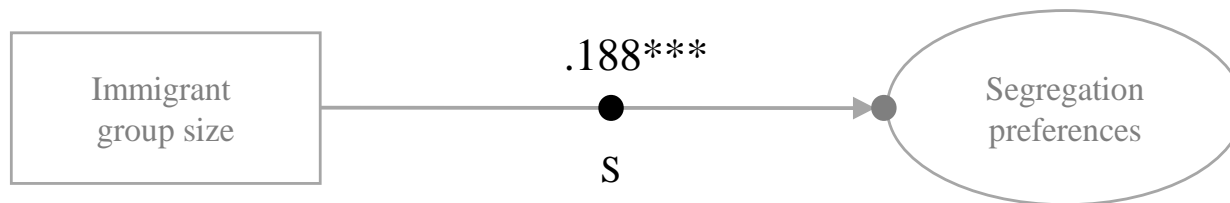
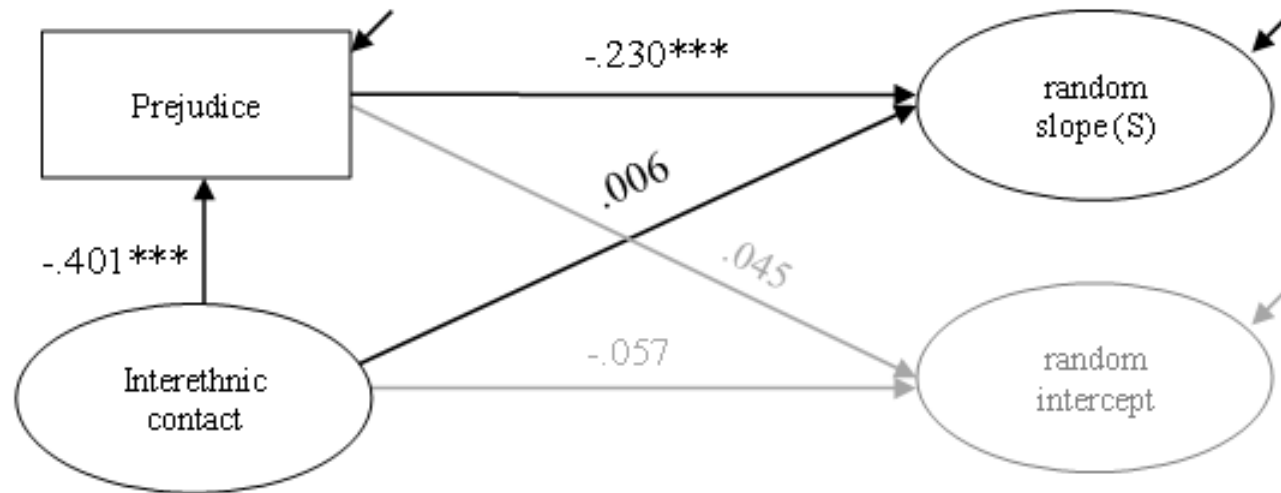
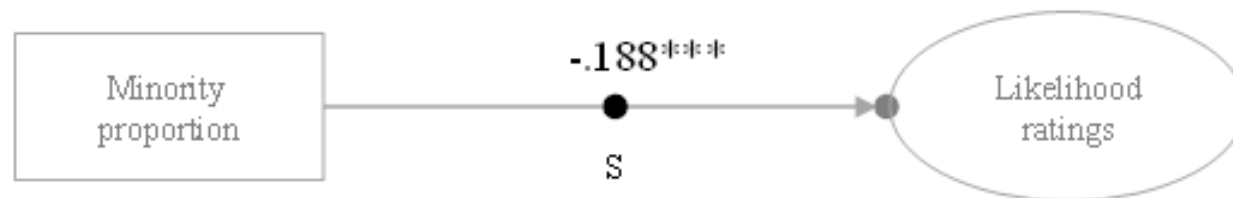


Figure 2b: Results model 3.



Between-Respondents

Within-Respondents



Discussion/Conclusion

- To sum up, drawing on a factorial survey approach, this research contributes experimental evidence that a larger immigrant group size decreases majority members' preference for choosing the residential areas and schools.
- Beyond that, the findings demonstrate that having more frequent interethnic contact reduces these segregation tendencies and that this interactive effect is mediated via reduced anti-immigrant prejudice.
- Of course, the question as to what extent the present conclusions apply to alternative sociospatial contexts remains to be addressed in future research.
- For such endeavors, the theoretical model and empirical strategy outlined here may help provide a constructive framework.



**Thank you for your
attention!**