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Who Wants to Be in America? A Generalized Linear Mixed Model to Predict Satisfaction with Life in the United States among the Children of Immigrants

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Who Wants to Be in America?



A Generalized Linear Mixed Model to Predict Satisfaction with Life in the United States among the Children of Immigrants

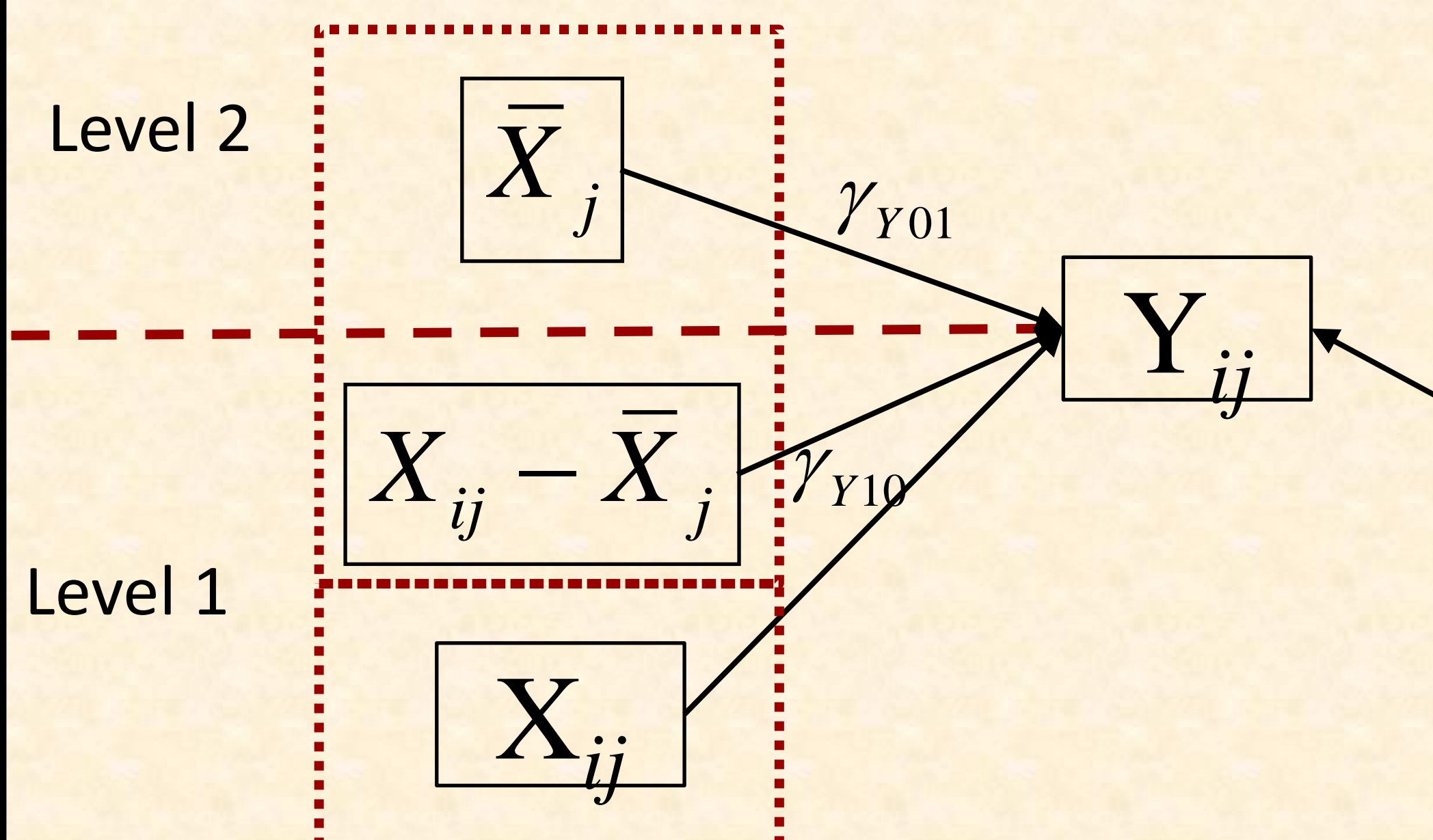
Introduction

- Measuring important outcomes for the children of immigrants may be just as important as measuring outcomes for immigrants themselves
- Integration is often measured in terms educational attainment, income, and occupational prestige. This analysis attempts to predict a much more subjective outcome – satisfaction with life in the United States for children of immigrants.

Data and Methods

- Children of Immigrants Longitudinal Study, waves I & 2.
- Surveys were administered to junior high school students in California and Florida.
- Only identically worded survey items are used.
- The outcome variable was measured ordinally. Because the statistical model fails to meet the parallel lines assumption, it is treated as a multinomial distribution.
- A generalized linear mixed model (GLMM) is appropriate for estimating this model because it accounts for variation in the outcome variable both within and between schools. The GLMM is, statistically, a better fit for the data than a single-level generalized linear model.
- Sample size = 3,480 students

Simplified Model



Results

Table I. Multinomial Generalized Linear Mixed Model Results: Coefficients, Relative Rate Ratios, Standard Errors, and Significance tests.

Variable Name	Agrees a Lot			Variable Name	Agrees a Little			Variable Name	Disagrees a Little		
	Coefficient (RRR)	Std. Error	Significance		Coefficient (RRR)	Std. Error	Significance		Coefficient (RRR)	Std. Error	Significance
Fixed Intercept	-4.901 (0.007)	1.401	0.000***	Fixed Intercept	-4.113 (0.016)	1.181	0.001**	Fixed Intercept	-1.832 (0.160)	1.183	0.122
Random Intercept	0.054	0.031	*	Random Intercept	0.000			Random Intercept	0.000		
Grade =7	6.928 (1020.726)	0.104	0.917	Grade =7	-0.910 (0.403)	93.915	0.992	Grade =7	-0.938 (0.392)	93.915	0.992
Grade =8	-0.391 (0.676)	-3.342	0.001**	Grade =8	-0.313 (0.731)	0.111	0.005**	Grade =8	-0.158 (0.854)	0.114	0.167
"Americans feel superior to foreigners" =SA	0.332 (1.393)	0.182	0.069	"Americans feel superior to foreigners" =SA	1.001 (2.722)	0.221	0.000***	"Americans feel superior to foreigners" =SA	-0.024 (0.976)	0.190	0.900
"Americans feel superior to foreigners" =A	0.681 (1.976)	0.186	0.000***	"Americans feel superior to foreigners" =A	1.355 (3.877)	0.225	0.000***	"Americans feel superior to foreigners" =A	0.470 (1.600)	0.193	0.015*
"Americans feel superior to foreigners" =D	0.205 (1.228)	0.208	0.324	"Americans feel superior to foreigners" =D	1.036 (2.819)	0.243	0.000***	"Americans feel superior to foreigners" =D	0.036 (1.037)	0.217	0.868
"I will face discrimination, even with education" =SA	-0.141 (0.868)	0.180	0.433	"I will face discrimination, even with education" =SA	-0.402 (0.669)	0.196	0.040*	"I will face discrimination, even with education" =SA	-0.290 (0.748)	0.196	0.139
"I will face discrimination, even with education" =A	-0.218 (0.804)	0.151	0.148	"I will face discrimination, even with education" =A	0.035 (1.036)	0.155	0.822	"I will face discrimination, even with education" =A	-0.073 (0.929)	0.159	0.645
"I will face discrimination, even with education" =D	-0.102 (0.903)	0.141	0.467	"I will face discrimination, even with education" =D	0.246 (1.279)	0.144	0.088	"I will face discrimination, even with education" =D	0.107 (1.113)	0.148	0.469
Citizenship =No	-0.315 (0.730)	0.195	0.107	Citizenship =No	-0.273 (0.761)	0.198	0.168	Citizenship =No	-0.397 (0.673)	0.202	0.049*
Foreign born (group centered)	0.258 (1.295)	0.142	0.069	Foreign born (group centered)	0.092 (1.096)	0.146	0.529	Foreign born (group centered)	-0.070 (0.932)	0.148	0.636
Past discrimination (group centered)	-0.563 (0.569)	0.120	0.000***	Past discrimination (group centered)	-0.284 (0.753)	0.126	0.024*	Past discrimination (group centered)	-0.223 (0.800)	0.129	0.083
At least one native parent (group-centered)	0.205 (1.228)	0.163	0.208	At least one native parent (group-centered)	0.115 (1.122)	0.171	0.500	At least one native parent (group-centered)	0.131 (1.140)	0.175	0.455
At least one citizen parent (group centered)	0.114 (1.121)	0.191	0.550	At least one citizen parent (group centered)	0.055 (1.057)	0.200	0.781	At least one citizen parent (group centered)	-0.226 (0.797)	0.201	0.260
Foreign born (school mean)	1.227 (3.411)	0.641	0.056	Foreign born (school mean)	0.784 (2.190)	0.557	0.159	Foreign born (school mean)	0.003 (1.003)	0.576	0.996
Past discrimination (school mean)	1.545 (4.690)	0.772	0.045*	Past discrimination (school mean)	0.444 (1.599)	0.657	0.499	Past discrimination (school mean)	0.222 (1.249)	0.663	0.738
At least one native parent (school mean)	0.285 (1.329)	1.166	0.807	At least one native parent (school mean)	-1.430 (0.239)	1.042	0.170	At least one native parent (school mean)	-0.290 (0.748)	1.054	0.783
At least one citizen parent (school mean)	2.543 (12.718)	0.634	0.000***	At least one citizen parent (school mean)	3.137 (23.032)	0.520	0.000***	At least one citizen parent (school mean)	2.051 (7.775)	0.528	0.000***

* p<0.05, ** p<0.01, *** p<0.001

Notes: The 95% confidence interval for the random intercept (Agrees a lot) ranges from 0.018 to 0.166. For categorical variables, SA = strongly agree, A = agree, D = disagree; the strongly disagree category is omitted as a reference category.

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