

Supplement to:

Schaefer, R. David, Sara I. Villalta, Victoria Vezaldenos, and Adriana J. Umaña-Taylor. 2024. "Some Birds Have Mixed Feathers: Bringing the Multiracial Population into the Study of Race Homophily" Sociological Science 11: 1046-1083.

Some Birds Have Mixed Feathers:

Bringing the Multiracial Population into the Study of Race Homophily

Supplemental Material

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A. Key Survey Items

Think about the specific ethnic-racial group or groups that you are a member of.

There are many different ethnic groups; some are more general, like African American, Latino, or White, while others are more specific, like German, Haitian, Chinese, Korean, Salvadoran, Puerto Rican, and Mexican. As you read the next question, choose the category or categories that *best* describe your ethnic background. If you do not know, please take your best guess at what it may be.

- 1. Please choose your ethnic background (Choose all that apply you can choose more than one option if you want):
 - ① Black/African American
 - ⁽²⁾ Latino or Hispanic (for example: Mexican, Guatemalan, Salvadoran, Colombian, etc.)
 - ③ Asian (for example: Indian, Korean, Chinese, Japanese, etc.)
 - ④ American Indian/Native American
 - ^⑤ White (for example: Caucasian, Anglo, European American, etc.)
 - © Other (please specify)
- 2. If you chose more than one answer for question 5 (above), which ethnic group do you feel **most** a part of?

If you only chose one answer for question 5, bubble it again here (Choose ONLY ONE).

- ① Black/African American
- ² Latino or Hispanic (for example: Mexican, Guatemalan, Salvadoran, Colombian, etc.)
- ³ Asian (for example: Indian, Korean, Chinese, Japanese, etc.)
- ④ American Indian/Native American
- ^⑤ White (for example: Caucasian, Anglo, European American, etc.)
- © Other (please specify)
- 3. Name your 10 closest friends <u>in your school</u> (your closest friends can be of any gender and from any grade). Who are the friends you hang around with and talk to the most <u>in your school</u>?

You can list as many or as few names as you need but remember, only name your closest friends. After you complete the survey, these names will be blocked out so that you and your friends remain anonymous.

(Write in your friends' names and their grade. For example: Angela Garcia 10th or Mike Smith 9th.)

Angela	Garcia	10^{th}
First name	Last name	Grade

B. PERLA Color Palette



Skin tone was measured by comparing each student headshot to the PERLA color palette (Telles 2014). Coding was performed by undergraduate research assistants. Our procedure involved digitizing and individually cropping students' headshots such that they could be presented on coders' computer screens one at a time (to avoid context effects; Cooley et al. 2018). To minimize measurement error due to lighting differences, each headshot and color palette appeared simultaneously on coders' screens. Coders entered a number 1-11 corresponding to the best matching color swatch, with higher numbers reflecting darker skin tone. Each headshot was coded by at least three coders, with scores averaged across coders and yearbooks (for students observed in both years).

	,						
		Asian	Black	Latino	White	Nat. Am.	Other
MW	Asian	251	2.8%	1.4%	28.5%	.5%	1.9%
	Black	6	165	2.8%	19.6%	9.3%	2.3%
	Latino/a	3	6	57	14.0%	0%	0%
	White	61	42	30	362	5.1%	11.7%
	Nat. Am.	1	20	0	11	1	0%
	Other	4	5	0	25	0	11
SW	Asian	45	2.7%	3.8%	5.6%	.4%	.2%
	Black	15	266	9.2%	13.9%	8.1%	.4%
	Latino/a	21	51	325	37.0%	8.7%	0%
	White	31	77	205	454	8.1%	.2%
	Nat. Am.	2	45	48	45	52	0%
	Other	1	2	0	11	0	3

C. Table SM1. Distribution of Monoracial (MW $n = 847$; SW $n = 1,145$) and Biracial (MW $n = 214$; SW	N
n = 554) Backgrounds	

Cells on the diagonal represent the number of monoracial youth of each race. Cells below the diagonal represent the number of biracial youth with that racial background. For instance, in MW there were 6 youth who reported Black and Asian. For comparison, there were 251 monoracial Asian youth and 165 monoracial Black youth. Cells above the diagonal represent the proportion of biracial youth in the school with the given combination.

			MW		SW				
			<i>n</i> = 1,1	30		SW $n = 1,906$ M, % SD Missing (* 24.8% 27.5% 25.2% 22.5% 25.2% 22.5% 54.6% 5.4 1.7 4 2.7 .5 4.32 1.88 4 6.9 1.8 15 7.7 1.6 4 1.5 .6 22 2 2 5 4 3 1 3 4			
	Range	M, %	SD	Missing (%)	M, %	SD	Missing (%)		
Grade cohort	8-11			0			0		
8		26.2%			24.8%				
9		25.8%			27.5%				
10		28.8%			25.2%				
11		19.2%			22.5%				
Gender (female)	0-1	46.4%		.3	54.6%		.5		
Parent Education	1-8	6.5	1.6	5.0	5.4	1.7	4.0		
Immigrant Gen.	1-3	2.3	.7	.1	2.7	.5	.5		
Skin Tone	1-11	4.89	2.04	.9	4.32	1.88	4.4		
Academic Perf.	1-9								
Wave 1		7.7	1.7	10.1	6.9	1.8	15.8		
Wave 2		7.7	1.6	7.9	7.7	1.6	4.2		
Discrimination	1-5								
Wave 1		1.4	.5	.7	1.5	.6	2.9		
Wave 2		1.4	.5	6.1	1.4	.5	3.3		
Num. of Friends	0-10								
Wave 1		3.7	2.8	0	3.4	2.8	0		
Wave 2		3.6	3.0	0	3.1	2.8	0		
Wave 3		3.0	2.8	0	2.6	2.4	0		

D. Table SM2.	Descriptive	Statistics

Note. Gen = Generation. Perf = Performance.

	Proportion Who Changed Self-Classification ^a				New Self-Classification ^b								
	S	W	MW										
	Wave	Wave	Wave	Wave									
	1-2	2-3	1-2	2-3	Asian	Black	Latino/a	White	Nat. Am.	Other	Multi.		
Asian	.20	.07	.23	.29	-	1	0	13	0	5	4		
Black	.12	.09	.23	.17	4	-	6	11	4	7	22		
Latino/a	.10	.18	.18	.40	3	7	_	29	6	2	10		
White	.23	.21	.30	.19	12	14	27	-	6	17	23		
Nat. Am.	.29	.30	.88	1.00	2	2	7	7	_	1	4		
Other	.67	.57	.86	.47	4	5	1	5	0	-	6		
Multiracial	.77	.79	.75	.67	5	26	12	21	6	2	-		

E Table SM3 Rates and Patterns of Change in Racial Self-Classification

^a Cells represent the proportion of multiracial students with each ethnoracial self-classification at Wave *t* who changed their self-classification at Wave *t*+1. ^b Total number of changes from one ethnoracial classification (row) to each other classification (column) pooled over school-waves.

F. Explanation of Results for Select Controls in SAOMs

Focusing on the race function with Model 1 (Tables SM4 and SM5), *alter* effects for racial categories represent the tendency to choose each racial group versus White (the reference group). For example, the positive coefficient for Asian alter in SW (b=.67, p<.05) indicates that mixed-race students with an Asian and White background were more likely to select Asian than White, all else being equal.¹ In both schools, youth were more likely to select Black and less likely to select Native American compared to White and less likely to choose Multiracial. In the SW, we also see that youth were more likely to choose a Latino or Other race identity compared to White.

We also observe effects of phenotype, discrimination, and immigrant generation. Main *ego* effects represent the effect for White students, while interactions with other racial groups indicate how choosing that group deviates from selecting White. Given there are numerous intertwined effects for phenotype, we present Figure SM1 (next page), which shows how the likelihood of choosing each race varied by skin tone. We first note that these associations are non-linear. This is due to the effect of member similarity (i.e., prototypicality) that captured how having a skin tone closer to the average of peers in a given group affected self-classification with that group (MW: b=2.99, p<.001; SW: b=4.71, p<.001). Second, youth with darker skin tone were more likely to self-classify as Black in both schools (MW: b=.48, p<.05; SW: b=.82, p<.001) or Other in the SW (b=.86, p<.05). Claiming any of the other racial groups as one's primary self-classification was more likely with lighter skin tone, though with different inflection points.

¹ In interpreting these main effects, we assume that skin tone, discrimination, and immigrant generation are held constant at their mean (0 after centering).



Figure SM1. Contribution to the Race Function by Race and Skin Tone

Note. Skin tone is coded lightest (1) to darkest (11). Predictions assume a student with 3 friends reporting that primary racial category and all other attributes at their mean. A higher predicted contribution for one racial category relative to another corresponds to a greater likelihood of choosing the former over the latter (so long as both are part of one's ancestry).

The only other attributes to affect racial self-classification were discrimination and immigration. Students who experienced greater discrimination were more likely to self-classify as Black in the MW (b=1.87, p<.001) and Latino/a in the SW (b=.38, p<.05), compared to any other group. With respect to immigration generation, students in the MW with more distant immigration were less likely to self-classify as Asian (b=-.65, p<.05) or Other race (b=-.90, p=.053). In the SW, students were more likely to self-classify with a racial group to the extent that peers from their same immigrant generation self-classified with that group (b=1.11, p<.01).

Turning to the friend selection function reported in Tables SM4 and SM5, effects for controls indicate that students in both schools were more likely to name friends who were similar to themselves in terms of gender, grade cohort, academic performance, parental education, and extracurricular activities. Additionally, students in the MW selected friends based on similar discrimination experiences and immigrant generation. The effect of grade cohort is strongest of these (MW: b=1.08, p<.001; SW: b=1.12, p<.001), with students 3 times more likely to name a friend in their grade than in another grade (MW: exp[1.08]; SW: exp[1.12]). We also see a handful of school-specific ego and alter effects that are not of substantive interest, as well as endogenous network effects signifying common friendship processes (e.g., reciprocity and transitivity).

		M1			M2			M3	
	b	se		b	se		b	se	
Race Function									
Rate period 1	1.904	.257	***	1.976	.284	***	1.896	.274	***
Rate period 2	1.424	.173	***	1.482	.177	***	1.429	.180	***
Effect monoracial on rate	-100			-100			-100		
Outdegree (density)	-1.029	.227	***	-1.031	.215	***	-1.032	.224	***
Outdegree x time dummy	.043	.155		.034	.146		.040	.146	
Asian alter	248	.295		242	.288		241	.288	
Black alter	.760	.358	*	.739	.355	*	.761	.360	*
Latino/a alter	301	.349		295	.340		296	.355	
Native Am. alter	931	.465	*	919	.444	*	930	.474	*
Other race alter	162	.411		173	.397		169	.398	
Multiracial alter	-1.126	.295	***	-1.130	.285	***	-1.122	.291	***
Skin tone ego	133	.115		122	.115		131	.115	
Skin tone ego x black alter	.482	.236	*	.456	.240	Ť	.478	.238	*
Skin tone ego x latin alter	.261	.222		.265	.222		.260	.229	
Skin tone ego x asian alter	.158	.205		.148	.204		.159	.205	
Skin tone ego x orace alter	250	.279		243	.274		255	.277	
Skin tone ego x mrace alter	016	.185		011	.179		014	.184	
Skin tone ego-in-alter dist 2 sim.	2.992	1.089	***	2.994	1.076	***	3.013	1.073	***
Discrimination ego	426	.221	Ť	413	.223	Ť	425	.227	t
Discrimination ego x Black alter	1.866	.689	***	1.823	.692	***	1.903	.712	***
Discrimination ego x Latino/a alter									
Immigrant gen. ego x Asian alter	654	.312	*	652	.304	*	661	.310	*
Immigrant gen. ego x Other race alter	903	.467	Ť	911	.452	*	917	.474	†
Immigrant gen. ego-in-alter dist 2 sim.									
Friendship to agreement (peer influence)	.401	.121	***				.400	.122	***

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Friendship to agreement: adoption				.274	.172				
Friendship to agreement: stability				.542	.191	***			
Friendship Function									
Rate period 1	9.548	.406	***	9.549	.411	***	9.528	.407	***
Rate period 2	8.628	.305	***	8.637	.315	***	8.628	.298	***
Outdegree (density)	-5.658	.107	***	-5.649	.114	***	-5.653	.110	***
Outdegree x time dummy	253	.042	***	255	.044	***	255	.042	***
Reciprocity	3.284	.087	***	3.288	.086	***	3.286	.083	***
Transitive triplets	.763	.056	***	.767	.053	***	.765	.056	***
Transitive recipr. triplets	760	.048	***	760	.046	***	760	.045	***
Number of actors at dist 2	087	.043	*	083	.042	*	086	.043	*
Indegree - popularity (sqrt)	.394	.030	***	.393	.031	***	.394	.030	***
Outdegree - popularity (sqrt)	578	.123	***	589	.122	***	583	.124	***
Outdegree - activity (sqrt)	.312	.021	***	.311	.021	***	.312	.020	***
Female alter									
Female ego									
Same female	.485	.033	***	.484	.032	***	.485	.032	***
Gradecohort ego	110	.018	***	110	.019	***	110	.018	***
Same gradecohort	1.078	.036	***	1.077	.036	***	1.078	.035	***
Academic performance ego	109	.013	***	109	.013	***	109	.013	***
Academic performance similarity	.854	.107	***	.853	.108	***	.852	.107	***
Parent education ego	026	.013	*	026	.013	*	026	.012	*
Parent education similarity	.339	.090	***	.340	.094	***	.340	.090	***
Discrimination similarity	.258	.120	*	.259	.122	*	.262	.117	*
Immigrant gen. alter									
Same Immigrant gen.	.110	.029	***	.110	.030	***	.111	.029	***
Extracurricular activity co-participation	.716	.037	***	.719	.038	***	.717	.037	***
Same racial self-classification	.334	.035	***	.331	.034	***	.328	.035	***

Shared identity options									
multiracial \rightarrow multiracial	.246	.059	***	.245	.057	***	.196	.100	†
multiracial \rightarrow monoracial	.042	.048		.042	.048		.042	.049	
monoracial \rightarrow multiracial	.169	.044	***	.170	.044	***	.170	.044	***
Shared identity options x same self-class.							.120	.190	

*** p < .001; ** p < .01; * p < .05; † p < .10

		M1			M2			M3	
	b	se		b	se		b	se	
Race Function									
Rate period 1	.851	.083	***	.868	.084	***	.850	.062	***
Rate period 2	.850	.087	***	.869	.079	***	.853	.085	***
Effect monoracial on rate	-100			-100			-100		
Outdegree (density)	-1.356	.197	***	-1.262	.186	***	-1.351	.197	***
Outdegree x time dummy	.091	.108		.093	.108		.095	.110	
Asian alter	.665	.329	*	.585	.319	t	.674	.329	*
Black alter	1.163	.302	***	1.130	.297	***	1.173	.298	***
Latino/a alter	.688	.225	***	.653	.221	***	.691	.224	***
Native Am. alter	748	.299	**	823	.286	***	742	.290	**
Other race alter	1.124	.477	**	1.003	.473	*	1.125	.475	**
Multiracial alter	-1.008	.286	***	-1.103	.281	***	-1.020	.283	***
Skin tone ego	336	.092	***	317	.089	***	324	.090	***
Skin tone ego x Black alter	.816	.168	***	.824	.169	***	.843	.167	***
Skin tone ego x Latino/a alter	.227	.147		.206	.141		.211	.145	
Skin tone ego x Asian alter	124	.227		118	.229		124	.232	
Skin tone ego x Other race alter	.858	.404	*	.865	.392	*	.881	.401	*
Skin tone ego x Multiracial alter	.321	.188	†	.319	.182	†	.320	.189	†
Skin tone ego-in-alter dist 2 sim.	4.709	.878	***	4.589	.868	***	4.658	.893	***
Discrimination ego									
Discrimination ego x Black alter									
Discrimination ego x Latino/a alter	.378	.192	*	.596	.187	***	.601	.186	***
Immigrant gen. ego x Asian alter									
Immigrant gen. ego x Other race alter									
Immigrant gen. ego-in-alter dist 2 sim.	1.114	.473	**	1.101	.458	**	1.130	.474	**
Friendship to agreement (peer influence)	.182	.078	**				.181	.078	*

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Friendship to agreement: adoption				.018	.132				
Friendship to agreement: stability				.202	.107	t			
Friendship Function									
Rate period 1	12.905	.494	***	12.922	.499	***	12.915	.497	***
Rate period 2	9.010	.308	***	9.010	.305	***	9.021	.302	***
Outdegree (density)	-5.835	.111	***	-5.837	.085	***	-5.842	.086	***
Outdegree x time dummy	.074	.027	***	.074	.027	***	.074	.026	***
Reciprocity	3.403	.072	***	3.404	.065	***	3.403	.067	***
Transitive triplets	.917	.047	***	.916	.046	***	.917	.045	***
Transitive recipr. triplets	936	.044	***	936	.044	***	935	.043	***
Number of actors at dist 2	081	.033	**	081	.033	**	080	.033	**
Indegree - popularity (sqrt)	.414	.049	***	.414	.026	***	.414	.024	***
Outdegree - popularity (sqrt)	487	.101	***	485	.093	***	489	.095	***
Outdegree - activity (sqrt)	.293	.016	***	.294	.015	***	.294	.016	***
Female alter	.042	.025	t	.043	.025	t	.042	.024	†
Female ego	.087	.028	***	.087	.028	***	.088	.026	***
Same female	.416	.025	***	.416	.025	***	.416	.025	***
Gradecohort ego									
Same gradecohort	1.115	.030	***	1.115	.027	***	1.117	.027	***
Academic performance ego	058	.009	***	057	.009	***	058	.008	***
Academic performance similarity	.600	.078	***	.600	.079	***	.596	.080	***
Parent education ego									
Parent education similarity	.238	.060	***	.237	.061	***	.235	.060	***
Discrimination similarity									
Immigrant gen. alter	062	.020	***	062	.020	***	062	.020	***
Same Immigrant gen.									
Extracurricular activity co-participation	.843	.037	***	.843	.038	***	.842	.037	***
Same racial self-classification	.365	.026	***	.364	.026	***	.384	.027	***

Shared identity options						
multiracial \rightarrow multiracial	.118	.032 ***	.119	.032 ***	.172	.044 ***
multiracial \rightarrow monoracial	.017	.034	.017	.034	.013	.033
monoracial \rightarrow multiracial	.006	.033	.005	.032	.001	.032
Shared identity options x same self-class.					137	.082 †

*** p < .001; ** p < .01; * p < .05; † p < .10

	Ν	1W	SW		
_	b	SE	b	SE	
Same racial self-classification	.328	.035 ***	.384	.027 ***	
Shared identity options					
multiracial \rightarrow multiracial	.196	.100†	.172	.044 ***	
multiracial \rightarrow monoracial	.042	.049	.013	.033	
monoracial \rightarrow multiracial	.170	.044 ***	.001	.032	
Racial identity same x				Ť	
shared identity options	.120	.190	137	.082	
$(multiracial \rightarrow multiracial)$					

I. Table SM6. SAOM Estimates from Model 3: Friendship Function

*** p < .001; ** p < .01; ** p < .05; † p < .10