



Minority Salience and the Overestimation of Individuals from Minority Groups in Perception and Memory

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This PDF file includes:

Supplementary text

Figures SI1 to SI6

Tables SI1 to SI8

Experiments 2A and 2B

Table S11: Correlations between estimates and attitude measures in Experiments 2A & 2B

		Experiment 2A						
		African American Estimates	White American Estimates	African American Thermometer	White American Thermometer	Explicit Preference	Liberal/Conservative Ideology	SDO
African American Estimates	Pearson Correlation	1	-.547**	-0.006	-0.021	0.044	0.019	0.167
	Sig. (2-tailed)		<.001	0.954	0.84	0.672	0.852	0.103
	N	96	96	96	96	96	96	96
White American Estimates	Pearson Correlation	-.547**	1	-0.041	-0.009	-0.019	0.088	-0.136
	Sig. (2-tailed)	<.001		0.691	0.927	0.856	0.393	0.187
	N	96	96	96	96	96	96	96
		Experiment 2B						
		African American Estimates	White American Estimates	African American Thermometer	White American Thermometer	Explicit Preference	Liberal/Conservative Ideology	SDO
African American Estimates	Pearson Correlation	1	-.500**	0.026	-0.137	0.112	0.187	.235*
	Sig. (2-tailed)		<.001	0.807	0.191	0.286	0.072	0.023
	N	93	93	93	93	93	93	93
White American Estimates	Pearson Correlation	-.500**	1	-0.046	0.137	-0.188	0.031	-0.073
	Sig. (2-tailed)	<.001		0.658	0.191	0.072	0.769	0.488
	N	93	93	93	93	93	93	93

Experiments 3A and 3B

a. Estimates across the different actual prevalence conditions (10%-50%).

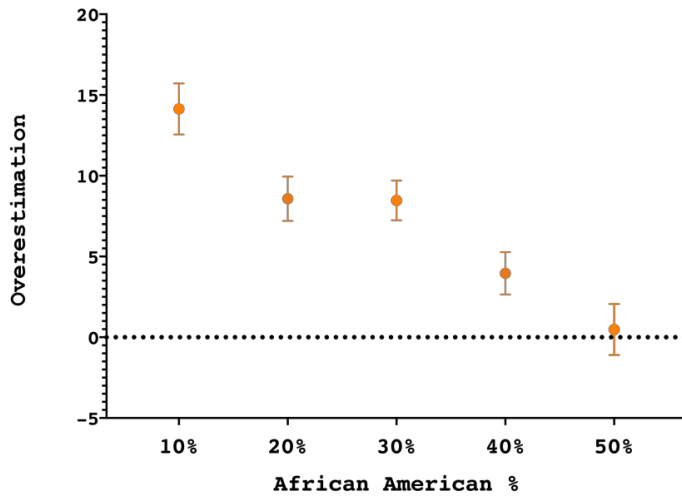


Figure S11. Estimates for African Americans from perception in each of the five actual percentage conditions (10%-50%) in Experiment 3A. Zero denotes accurate estimates, positive values denote overestimation, and negative values underestimation. Results indicate that the smaller the true prevalence of the minority group, the larger the overestimation.

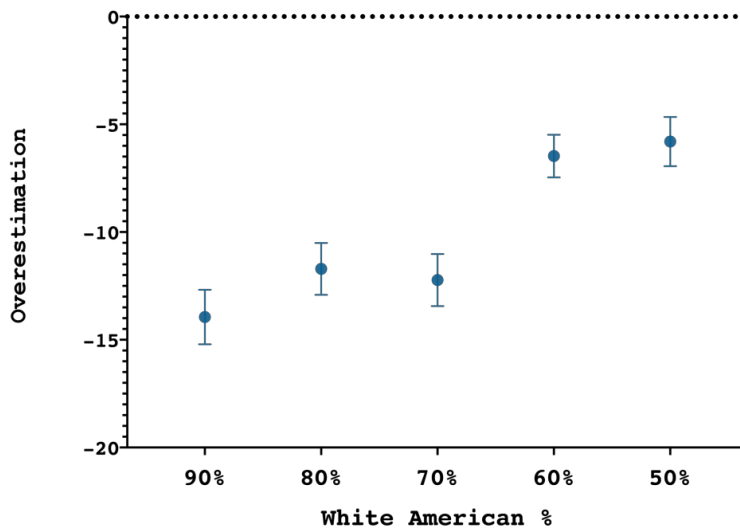


Figure S12. Estimates for White Americans from perception in each of the actual percentage conditions (50%-90%) in Experiment 3A. Zero denotes accurate estimates, positive values denote overestimation, and negative values underestimation. Results indicate that the larger the true prevalence of the majority group, the larger the underestimation.

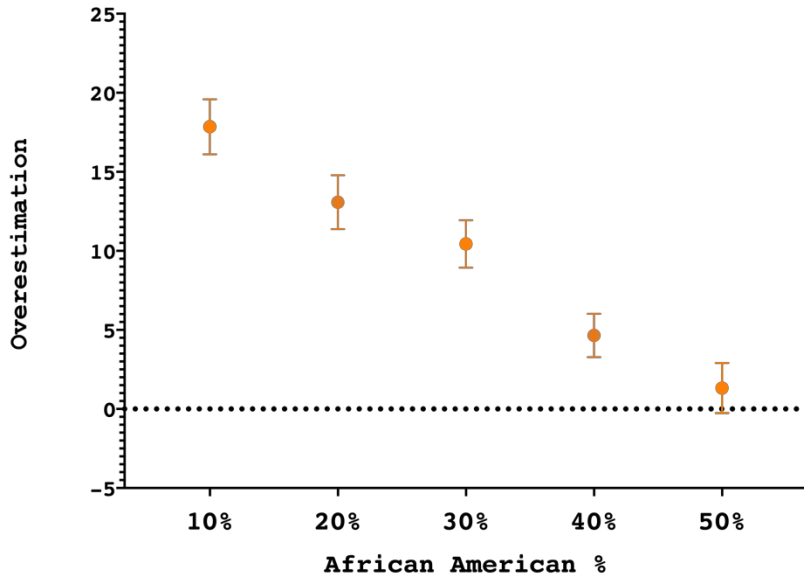


Figure SI3. Estimates for African Americans from perception in each of the five actual percentage conditions (10%-50%) in Experiment 3B. Zero denotes accurate estimates, positive values denote overestimation, and negative values underestimation. Results indicate that the smaller the true prevalence of the minority group, the larger the overestimation.

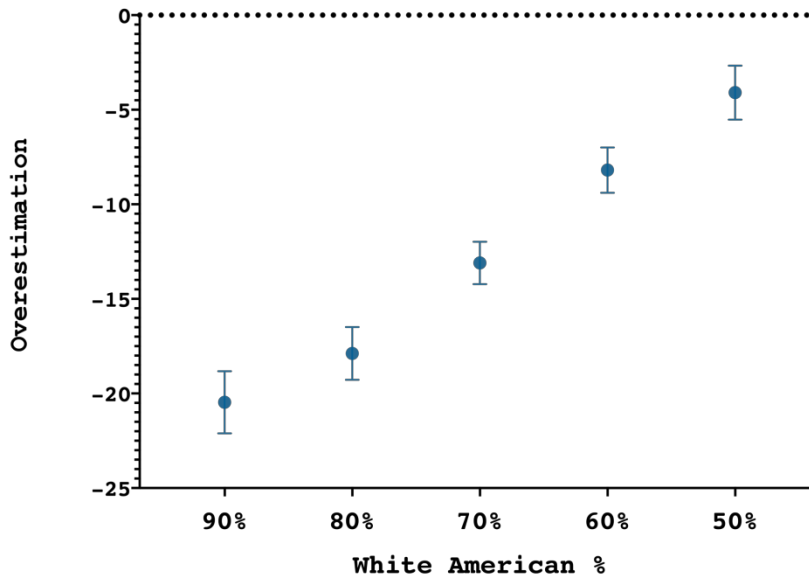


Figure SI4. Estimates for White Americans from perception in each of the actual percentage conditions (50%-90%) in Experiment 3B. Zero denotes accurate estimates, positive values denote overestimation, and negative values underestimation. Results indicate that the larger the true prevalence of the majority group, the larger the underestimation.

Table S12. Correlations between estimates from perception, estimates from memory, and attitudes in Experiments 3A and 3B

Experiment 3A											
		African American Perception-Estimates	White American-Perception Estimates	African American Memory-Estimates	White American-Memory Estimates	African American Thermometer	White American Thermometer	Explicit Preference	Liberal/Conservative Ideology	Threat	SDO
African American Perception-Estimates	Pearson Correlation	1	-.629**	.532**	-0.083	0.031	-0.063	-0.256	0.191	-0.115	0.245
	Sig. (2-tailed)		<.001	<.001	0.585	0.84	0.675	0.086	0.203	0.445	0.123
	N	46	46	46	46	46	46	46	46	46	46
White American-Perception Estimates	Pearson Correlation	-.629**	1	-0.219	0.129	0.025	0.126	0.035	-0.12	-0.034	-0.282
	Sig. (2-tailed)	0		0.145	0.394	0.867	0.405	0.818	0.426	0.822	0.074
	N	46	46	46	46	46	46	46	46	46	46
African American Memory-Estimates	Pearson Correlation	.532**	-0.219	1	0	0.069	0.018	-0.197	0.018	-0.213	0.18
	Sig. (2-tailed)	0	0.145		0.999	0.646	0.904	0.189	0.906	0.156	0.259
	N	46	46	46	46	46	46	46	46	46	46
White American-Memory Estimates	Pearson Correlation	-0.083	0.129	0	1	0.048	0.135	0.078	-0.066	-0.128	-0.239
	Sig. (2-tailed)	0.585	0.394	0.999		0.75	0.372	0.609	0.664	0.398	0.133
	N	46	46	46	46	46	46	46	46	46	46

Experiment 3B											
		African American Perception-Estimates	White American-Perception Estimates	African American Memory-Estimates	White American-Memory Estimates	African American Thermometer	White American Thermometer	Explicit Preference	Liberal/Conservative Ideology	Threat	SDO
African American Perception-Estimates	Pearson Correlation	1	-.566**	.458**	-.351*	-0.098	0.062	-0.082	0.185	0.144	0.144
	Sig. (2-tailed)		<.001	0.002	0.018	0.523	0.688	0.592	0.223	0.344	0.347
	N	45	44	45	45	45	45	45	45	45	45
White American-Perception Estimates	Pearson Correlation	-.566**	1	-.511**	.569**	.330*	0.104	0.086	-0.128	-0.249	-0.278
	Sig. (2-tailed)	<.001		<.001	<.001	0.029	0.5	0.58	0.409	0.104	0.068
	N	44	44	44	44	44	44	44	44	44	44
African American Memory-Estimates	Pearson Correlation	.458**	-.511**	1	-.589**	-0.159	-0.048	0.06	0.025	0.054	0.018
	Sig. (2-tailed)	0.002	<.001		<.001	0.297	0.755	0.696	0.871	0.724	0.906
	N	45	44	45	45	45	45	45	45	45	45
White American-Memory Estimates	Pearson Correlation	-.351*	.569**	-.589**	1	0.256	-0.057	0.114	-0.198	-0.112	-0.163
	Sig. (2-tailed)	0.018	<.001	<.001		0.089	0.708	0.457	0.192	0.462	0.283
	N	45	44	45	45	45	45	45	45	45	45

Experiments 4 A and 4B

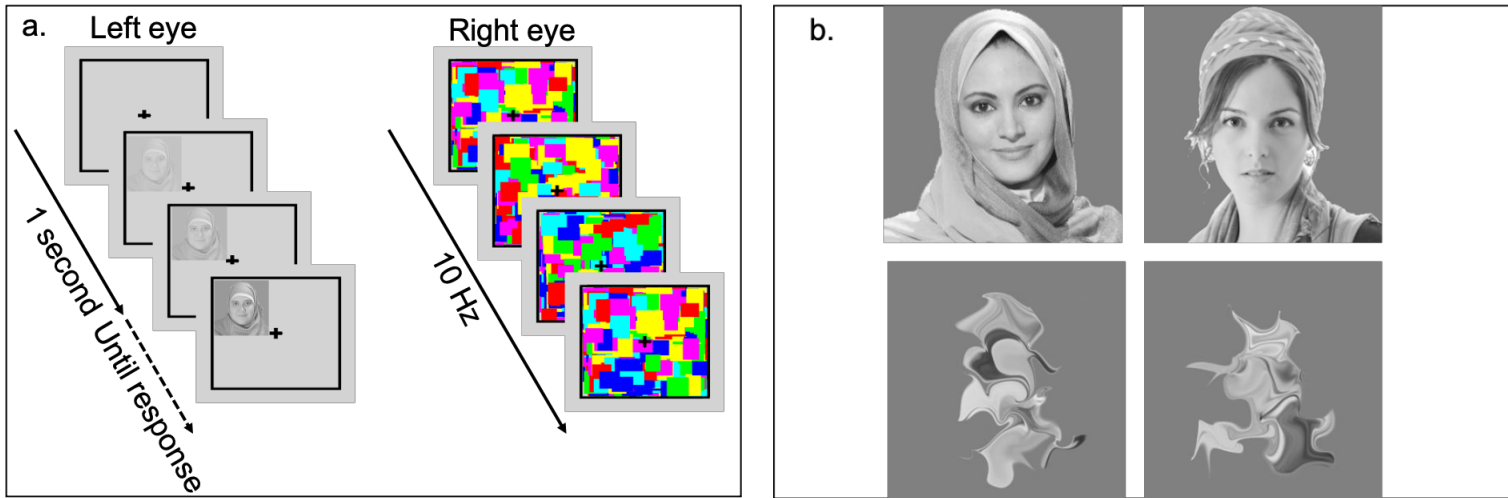


Figure S15 (a). Example of a bCFS trial. A static stimulus, fading in over time, is presented to the left eye, while colorful Mondrians are presented to the right eye. Presentation continues until participants indicate awareness.

Figure S15(b). Examples of stimuli in the four conditions; women in a Muslim headscarf, women in a Jewish headscarf, and diffeomorphic scrambles of those images.

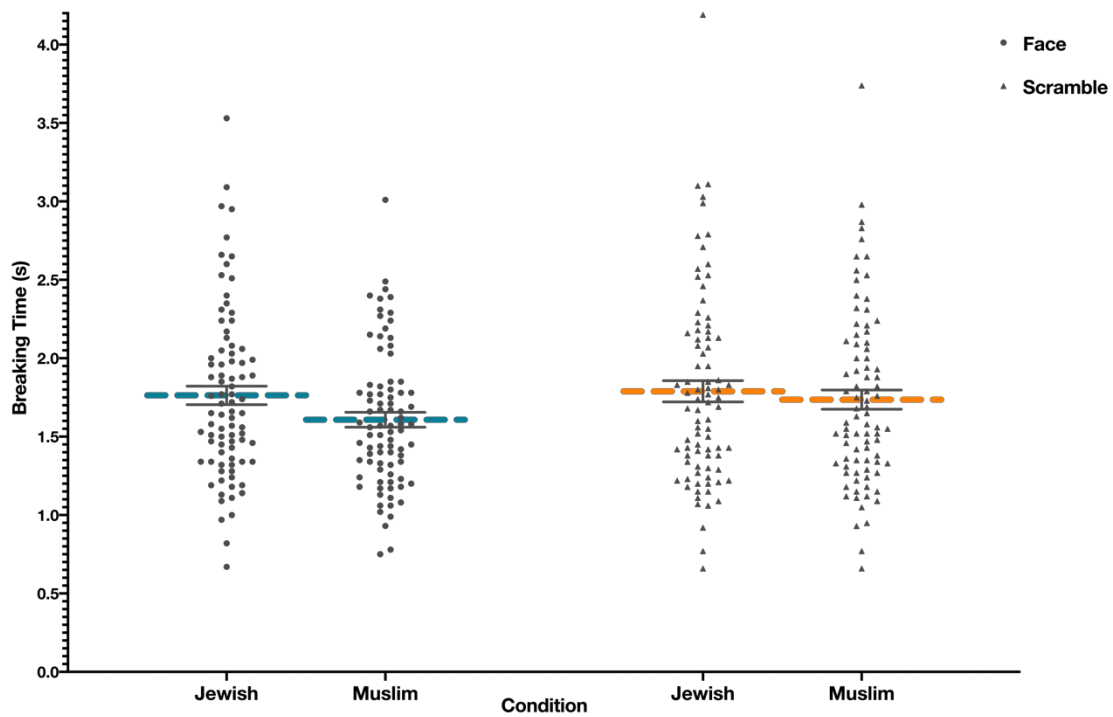


Figure S6a. Results of Experiment 4A. Breaking times (s) for Jewish and Muslim faces (blue) and the diffeomorphic scrambles of those faces (orange).

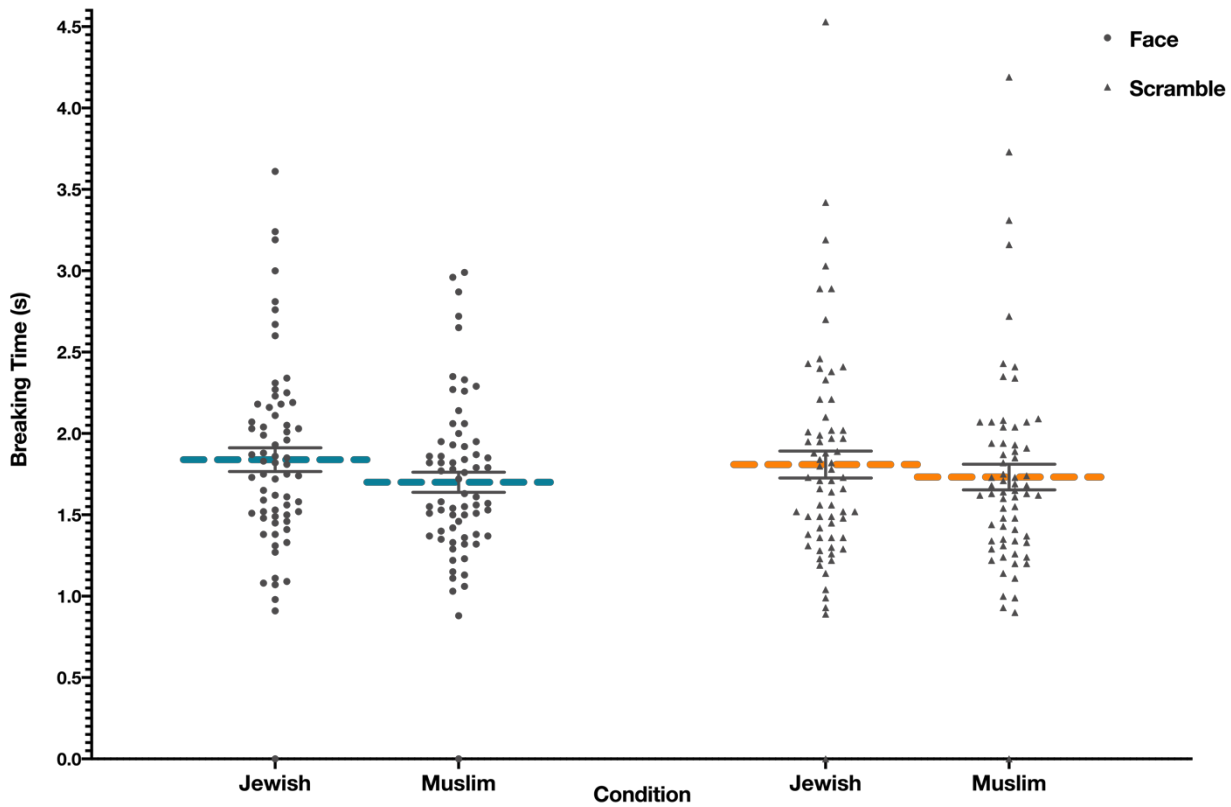


Figure SI6b. Results of Experiment 4B. Breaking times (s) for Jewish and Muslim faces (blue) and the diffeomorphic scrambles of those faces (orange).

Attitudes

After completing the CFS study, both implicit and explicit attitude measures were collected. To test implicit attitudes participants performed an IAT task using the same faces displayed in CFS as targets. The corresponding categories were (Muslim/ Jewish; Good/Bad). Explicit attitudes included: group thermometer, explicit preference, perceived threat, and ideology.

Table S13. Correlations between breaking times and attitudes in Experiments 4A and 4B.

		Experiment 4A							
		RT Jewish Faces	RT Muslim Faces	Muslim Thermometer	Jewish Thermometer	Explicit Preference	Liberal/Conservative Ideology	Threat	IAT Score
RT Jewish Faces	Pearson Correlation	1	.811**	0.01	-0.16	0.127	-0.02	-0.106	-0.055
	Sig. (2-tailed)		<.001	0.928	0.157	0.258	0.866	0.348	0.619
	N	84	84	81	80	81	74	81	84
RT Muslim Faces	Pearson Correlation	.964**	1	0.057	-0.127	0.168	0.004	-0.115	-0.076
	Sig. (2-tailed)	p<.001		0.613	0.261	0.134	0.975	0.307	0.492
	N	84	84	81	80	81	74	81	84

		Experiment 4B							
		RT Jewish Faces	RT Muslim Face	Muslim Thermometer	Jewish Thermometer	Explicit Preference	Liberal/Conservative Ideology	Threat	IAT Score
RT Jewish Faces	Pearson Correlation	1	.900**	-0.002	0.091	0.021	0.196	0.075	0.005
	Sig. (2-tailed)		<.001	0.987	0.468	0.867	0.115	0.554	0.967
	N	66	66	66	66	66	66	65	66
RT Muslim Faces	Pearson Correlation	.968**	1	0.03	0.11	0.002	0.193	0.096	0.005
	Sig. (2-tailed)	p<.001		0.812	0.378	0.987	0.12	0.446	0.969
	N	66	66	66	66	66	66	65	66

Experiment 5

Table S14. Correlations between estimates and attitudes in Experiment 5.

		Experiment 5							
		African American Estimates	White American Estimates	African American Thermometer	White American Thermometer	Explicit Preference	Liberal/Conservative Ideology	Threat	SDO
African American Estimates	Pearson Correlation	1	-.818**	-0.143	0.027	-0.008	0.013	0.101	0.065
	Sig. (2-tailed)		<.001	0.157	0.792	0.935	0.897	0.317	0.522
	N	98	98	98	98	98	98	98	98
White American Estimates	Pearson Correlation	-.818**	1	.197*	0.019	0.006	-0.073	-0.108	-0.084
	Sig. (2-tailed)	<.001		0.05	0.851	0.951	0.473	0.286	0.407
	N	98	98	98	98	98	98	98	98

Experiment 6

List of questions in the dependent measure scale: support of diversity promoting policies.

Experiential condition Cronbach's $\alpha=0.88$; Descriptive condition Cronbach's $\alpha=0.92$.

1. Do you think affirmative action measures to increase African-American representation should be taken in this college program? Scale Not at all (0) – To a great extent (100)
2. Do you think affirmative action measures to decrease racial inequality should be taken in this college program? Scale Not at all (0) – To a great extent (100)
3. In your opinion, should this college program be motivated to increase the racial diversity of students? Scale Not at all (0) – To a great extent (100)
4. In your opinion, should this college program be more committed to fostering a socially diverse environment? Scale Not at all (0) – To a great extent (100)

A Note on Attitudes

Combined Analysis

Table S15. Correlations between estimates and attitude measures across Experiments 2&3.

		Experiments 2&3									
		African American Memory-Estimates	White American-Memory Estimates	African American Perception-Estimates	White American-Perception Estimates	African American Thermometer	White American Thermometer	Explicit Preference	Liberal/Conservative Ideology	Threat	SDO
African American Memory-Estimates	Pearson Correlation	1	-.497**	.429**	-.378**	-0.04	-0.09	0.046	0.109	0.033	.178**
	Sig. (2-tailed)		<.001	<.001	<.001	0.52	0.141	0.457	0.074	0.761	0.004
	N	268	268	86	85	268	268	268	268	86	268
White American-Memory Estimates	Pearson Correlation	-.497**	1	-.270*	.426**	0.078	0.066	0.01	0.008	-0.11	-0.09
	Sig. (2-tailed)	<.001		0.012	<.001	0.206	0.285	0.866	0.893	0.312	0.142
	N	268	268	86	85	268	268	268	268	86	268
African American Perception-Estimates	Pearson Correlation	.429**	-.270*	1	-.620**	-0.093	-0.064	-0.06	0.184	0.075	0.161
	Sig. (2-tailed)	<.001	0.012		<.001	0.394	0.56	0.582	0.09	0.495	0.138
	N	86	86	86	85	86	86	86	86	86	86
White American-Perception Estimates	Pearson Correlation	-.378**	.426**	-.620**	1	0.201	0.162	0.007	-0.12	-0.09	-.234*
	Sig. (2-tailed)	<.001	<.001	<.001		0.065	0.139	0.951	0.274	0.411	0.031
	N	85	85	85	85	85	85	85	85	85	85

Study S11

Methods. 150 participants, all based in the US, (74.7% female, mean age 33.25) were recruited through Prolific. Each participant viewed 20 matrices with 100 faces in each matrix. The matrices paradigm was identical to that of Experiment 2, with a 5% overall prevalence of African American faces (half the matrices included 4% African American face, the other half 6%). After viewing all matrices, participants were asked to estimate the prevalence of African American faces and of White American faces. Afterwards they were asked 2 questions about diversity promoting policies (questions 1 and 2 from Experiment 6) Responses to those two questions were averaged (Cronbach's $\alpha=.90$) to compose the support for diversity promoting policies scale. In addition, participants were asked to indicate their ideologies on a Liberal-Conservative scale (0-100) and completed the SDO_{7(s)} questionnaire. To calculate a participant's SDO score (1- Low Social Dominance; 8 High Social Dominance), 4 responses on the SDO scale were reverse coded and then all responses averaged (Cronbach's $\alpha=.89$). Responses were then linearly converted into a 0-100 score to match the other scales. In line with our pre-registered analysis plan, estimates that fell outside 2SD from the group mean were disregarded from analysis (10 African American estimates, and 2 White American Estimates).

Results. General attitudes were not correlated with either overestimation of African Americans (SDO: $r=.05$, $p>.5$; Ideology: $r=.04$, $p>.6$; See TableS6) nor underestimation of White Americans (SDO: $r=-.07$, $p>.4$; Ideology: $r=-.08$, $p>.3$). However, attitudes towards diversity promoting policies in this college did correlate both with the overestimation of African Americans ($r=-.17$, $p=.046$) and the underestimation of White Americans ($r=.22$; $p=.007$). Moreover, in a regression model predicting support for diversity promoting policies in this college, the effect of overestimation of African Americans ($\beta=-.33$, $t(139)=-2.28$, $p=.024$) was significant beyond the effects of SDO ($\beta=-.12$, $t(139)=-.69$, $p=.49$) and Ideologies ($\beta=-.66$, $t(139)=-7.70$, $p<.001$). Similarly, underestimation of White Americans ($\beta=.35$, $t(146)=2.80$, $p=.006$) significantly predicted support for diversity promoting policies in this college beyond the effects of SDO ($\beta=-.27$, $t(146)=-1.56$, $p=.12$) and Ideologies ($\beta=-.54$, $t(146)=-6.86$, $p<.001$).

Table S16. Correlations between estimates and attitude measures in Experiment S11.

Experiment S11- Correlations						
		African American Estimates	White American Estimates	Diversity Promoting	Ideology	SDO
African American Estimates	Pearson Correlation	1	-.780**	-.169*	0.043	0.054
	Sig. (2-tailed)		<.001	0.046	0.616	0.523
	N	140	137	140	140	140
White American Estimates	Pearson Correlation	-.780**	1	.222**	-0.075	-0.067
	Sig. (2-tailed)	<.001		0.007	0.366	0.421
	N	137	147	147	147	147
Diversity Promoting	Pearson Correlation	-.169*	.222**	1	-.666**	-.532**
	Sig. (2-tailed)	0.046	0.007		<.001	<.001
	N	140	147	150	150	150
Ideology	Pearson Correlation	0.043	-0.075	-.666**	1	.668**
	Sig. (2-tailed)	0.616	0.366	<.001		0
	N	140	147	150	150	150
SDO	Pearson Correlation	0.054	-0.067	-.532**	.668**	1
	Sig. (2-tailed)	0.523	0.421	<.001	<.001	
	N	140	147	150	150	150

Table S17. Regression Coefficients in a model predicting support for affirmative action policies from Estimates of Black Americans in Experiment S11.

Experiment S11- Regression Coefficients for African American Estimates				
	β	Std. Error	t	Sig.
African American Estimates	-0.332	0.145	-2.284	0.024
Ideology	-0.656	0.085	-7.695	<.001
SDO	-0.12	0.175	-0.685	0.494

Table S18. Regression Coefficients in a model predicting support for affirmative action policies from Estimates of White Americans in Experiment S11.

Experiment S11- Regression Coefficients for White American Estimates				
	β	Std. Error	t	Sig.
White American Estimates	0.35	0.125	2.804	0.006
Ideology	-0.546	0.08	-6.859	<.001
SDO	-0.267	2.14	-1.557	0.122