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ONLINE APPENDIX

Part A: GSS Attitude Items

Anti-black Prejudice

INTLBLKS. “Now I have some questions about different groups in our society. I'm going to show you a seven-point scale on which the characteristics of people in a group can be rated. In the first statement…The second set of characteristics asks if people in the group tend to be hard-working or if they tend to be lazy [respondent shown 7-point scale with 1 labeled ‘hard-working’ and 7 labeled ‘lazy’]. Where would you rate blacks in general on this scale?”

WORKBLKS. “Next, do people in these groups tend to be unintelligent or tend to be intelligent? [respondent shown 7-point scale with 1 labeled ‘unintelligent’ and 7 labeled ‘intelligent’] Where would you rate blacks in general on this scale?”

LIVEBLKS. “Now I'm going to ask you about different types of contact with various groups of people. In each situation would you please tell me whether you would be very much in favor of it happening, somewhat in favor, neither in favor nor opposed to it happening, somewhat opposed, or very much opposed to it happening? Living in a neighborhood where half of your neighbors were blacks?”

MARBLK.. “What about having a close relative marry a black person? Would you be very in favor of it happening, somewhat in favor, neither in favor nor opposed to it happening, somewhat opposed, or very opposed to it happening?”

Attitudes toward Segregation and Discrimination

RACSEG. “Do you agree strongly, agree slightly, disagree slightly, or disagree strongly with the following statement? White people have a right to keep blacks out of their neighborhoods if they want to, and blacks should respect that right.”

RACSCHOL. “Do you think white students and black students should go to the same schools or to separate schools? [respondent can answer ‘same schools’ or ‘separate schools.’]”

BLKJOBS. “How much discrimination is there that hurts the chances of blacks to get good paying jobs? Would you say there is a lot, some, only a little, or none at all?”

BLKHOUSE. “How much discrimination is there that makes it hard for blacks to buy or rent housing wherever they want? Would you say there is a lot, some, only a little, or none at all?”

Racial Policy Attitudes

HELPBLK. “Now look at CARD [respondent shown 5-point scale with one end labeled ‘I strongly agree the government is obligated to help blacks’ and the other end labeled ‘I strongly agree that government shouldn’t give special treatment’]. Some people think that blacks have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to blacks. Where would you place yourself on this scale, or haven't you made up your mind on this?”

BUSING. “In general, do you favor or oppose the busing of black and white school children from one school district to another?”

AFFRMACT. “Some people say that because of past discrimination, blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of Blacks is wrong because it discriminates against whites. What about your opinion—are you for or against preferential hiring and promotion of Blacks? [if favors] Do you favor preference in hiring and promotion strongly or not strongly? [if opposes] Do you oppose preference in hiring and promotion strongly or not strongly?”

RACOPEN. “Suppose there is a community-wide vote on the general housing issue. There are two possible laws to vote on. One law says that a homeowner can decide for himself whom to sell his house to, even if he prefers not to sell to blacks. The second law says that a homeowner cannot refuse to sell to someone because of their race or color. Which law would you vote for?”

BLKZONE. “Here are several things that the government in Washington might do to deal with the problems of poverty and unemployment among Black Americans. I would like you to tell me if you strongly favor it, favor it, neither favor it nor oppose it, oppose it, or strongly oppose it. Giving business and industry special tax breaks for locating in largely black areas?”

BLKSCHS. “Here are several things that the government in Washington might do to deal with the problems of poverty and unemployment among Black Americans. I would like you to tell me

if you strongly favor it, favor it, neither favor it nor oppose it, oppose it, or strongly oppose it. Spending more money on the schools in black neighborhoods, especially for pre-school and early education programs?"

Environmental Policy Attitudes

GRNTAXES. "How willing would you be to pay much higher taxes in order to protect the environment?" Are you very willing, fairly willing, neither willing nor unwilling, not very willing, not at all willing?"

PUBDECID. "If you had to choose, which one of the following would be closest to your views? Government should let ordinary people decide for themselves how to protect the environment, even if it means they don't always do the right thing, or government should pass laws to make ordinary people protect the environment, even if it interferes with people's right to make their own decisions."

BUSDECID. "If you had to choose, which one of the following would be closest to your views? Government should let businesses decide for themselves how to protect the environment, even if it means they don't always do the right thing, or government should pass laws to make businesses protect the environment, even if it interferes with business' right to make their own decisions."

Part B: Analyses based on Ordinal Response Scales

This supplement describes a parallel analysis of racial attitude variables measured using their original ordinal response scales (the details of these scales are described in Part A of the Online Supplement). Specifically, it presents estimates for the effects of verbal ability on racial attitudes from both proportional odds models and partial proportional odds models. The proportional odds model has form

$$P(Y > j|V, \boldsymbol{X}) = \frac{\exp(\alpha_j + V\beta + \boldsymbol{X\theta})}{1+\exp(\alpha_j + V\beta + \boldsymbol{X\theta})} \quad j = 1, \dots, J-1,$$

where Y is a response variable with J ordered categories; α_j is an intercept term for the j^{th} cumulative probability; V is a respondent's verbal ability score and β is a coefficient that summarizes its effect on the response variable; and $\boldsymbol{X}$ is vector of controls with an associated vector of coefficients, $\boldsymbol{\theta}$. The proportional odds model allows different intercepts for each cumulative probability, where α_j decreases in j because the cumulative probabilities necessarily decrease in j. The unique feature of this model is that it constrains the coefficients β and $\boldsymbol{\theta}$ to be the same for each cumulative probability. This constraint is based on the proportional odds assumption (i.e., the parallel regressions assumption) that the effect of each covariate in the model is the same across the $J-1$ response categories. Sometimes this assumption is violated, in which case the model may need to include separate coefficients for each cumulative probability.

The *partial* proportional odds model permits separate coefficients for some covariates but imposes the proportional odds constraint on others. I consider partial proportional odds models of the form

$$P(Y > j|V, \boldsymbol{X}) = \frac{\exp(\alpha_j + V\beta_j + \boldsymbol{X\theta})}{1+\exp(\alpha_j + V\beta_j + \boldsymbol{X\theta})} \quad j = 1, \dots, J-1,$$

where the coefficients associated with verbal ability are now indexed by *j* and thus may vary across cumulative probabilities. I conducted both Wald tests and comparisons of the Bayesian Information Criterion (BIC) between the proportional odds models and partial proportional odds models to assess the validity of the proportional odds assumption for the effects of verbal ability, but because Wald tests of the proportional odds assumption are highly sensitive in large samples, I rely primarily on BIC comparisons (Agresti 2002; Brant 1990; Long 1997). A difference in BIC values between the proportional odds and partial proportional odds model greater than 10 provides "strong evidence" against the proportional odds constraint, suggesting that the effects of verbal ability vary substantially across response categories (Kass and Raftery 1995). The coefficients in both models are cumulative log odds ratios, which can be interpreted in different several ways. At a simple level, the direction of a coefficient indicates whether the probability of being in a response category higher than *j* is increasing or decreasing in levels of the covariate. Coefficients can also be exponentiated and interpreted as the multiplicative effect on the cumulative odds associated with a unit change in the covariate.

Tables B.1 and B.2 present estimates of cumulative log odds ratios from proportional odds and partial proportional odds models of anti-black prejudice, attitudes toward segregation and discrimination, and racial policy attitudes. Note that some of the response variables analyzed in the main text do not appear in these tables because they were originally measured using a set of binary, rather than ordinal, response categories and that some response variables have been recoded to ensure that they are scaled in the same direction as others within the same attitude domain. These estimates largely reiterate findings reported in the main text: high-ability whites are less likely than their low-ability counterparts to report anti-black attitudes, are more likely to

reject segregation and acknowledge discrimination, and are generally no more likely to support remedial policies for racial inequality.

These estimates, however, also reveal several noteworthy patterns that are obscured in the binary logistic regression models reported in the main text. First, the effect of verbal ability on anti-black prejudice differs substantially across the range of the response categories—especially for attitudes toward the work ethic and intelligence of blacks—as both Wald tests and BIC comparisons indicate that the proportional odds assumption is violated for these attitudinal outcomes. Coefficients based on the partial proportional odds models for these response variables are positive for cumulative probabilities from $P(Y > 1)$ to $P(Y > 3)$ but are negative for cumulative probabilities from $P(Y > 4)$ to $P(Y > 6)$, where the value 1 is labeled "intelligent" or "hard working" on the original response scales, the value 4 is the midpoint, and the value 7 is labeled "unintelligent" or "lazy." This pattern indicates that that high-ability whites gravitate toward the midpoint, or neutral, value of these response scales. Second, the effect of verbal ability on support for government aid for blacks is also non-monotonic. Those with higher verbal ability are significantly more likely to avoid the most extreme oppositional response (i.e., $Y = 1$, indicating that a respondent "strongly agrees that government shouldn't give special treatment") but are otherwise not much more supportive of this policy than those with lower ability.

Table B.1. Effects of verbal ability on anti-black prejudice and attitudes toward segregation and discrimination from ordinal logistic regression models

Variable	Prop. odds model	Partial prop. odds model (Cum. LORs)						Wald Test	ΔBIC
	Cum. LOR	Y>1	Y>2	Y>3	Y>4	Y>5	Y>6		
Anti-black prejudice									
Blacks are unintelligent	– 0.053	0.263 **	0.187 ***	0.109 **	– 0.273 ***	– 0.492 ***	– 0.830 ***	<0.001	91.6
Blacks are lazy	– 0.202 ***	0.439 **	0.187 **	0.048	– 0.261 ***	– 0.397 ***	– 0.608 ***	<0.001	89.9
Oppose having black neighbors	– 0.133 ***	– 0.151 *	0.015	– 0.192 ***	– 0.320 ***	NA	NA	<0.001	25.9
Oppose black-white intermarriage	– 0.176 ***	– 0.009	0.049	– 0.230 ***	– 0.357 ***	NA	NA	<0.001	– 10.0
Attitudes toward segregation/discrimination									
Whites have no right to segregate nhoods	0.346 ***	0.437 ***	0.336 ***	0.330 ***	NA	NA	NA	<0.001	– 6.2
Blacks face labor market discrimination	0.319 ***	0.399 **	0.285 **	0.328 ***	NA	NA	NA	0.415	– 11.8
Blacks face housing market discrimination	0.245 **	0.427 ***	0.185 †	0.243 *	NA	NA	NA	<0.001	– 6.4

Notes: Data come from white respondents to the 1972-2010 waves/ballots of the General Social Survey that included racial attitude items and the verbal ability test. Estimates are from ordinal logistic regression models that control for age, period, cohort, geographic region, education, father's education, mother's education, and father's occupational status. Results are combined estimates from 10 multiple imputation datasets.

† p < .10, * p < .05, ** p < .01, and *** p < .001 for two-sided tests of no effect.

Table B.2 Effects of verbal ability on racial policy attitudes from ordinal logistic regression models

Variable	Prop. odds model	Partial prop. odds model (Cum. LORs)				Wald Test	ΔBIC
	Cum. LOR	Y>1	Y>2	Y>3	Y>4		
Redistributive policy attitudes							
Support government aid for blacks							
Linear term specification	0.086 ***	0.197 ***	– 0.005	0.057 †	– 0.079 †	<0.001	113.5
Dummy variable specification							
2nd ability tertile (versus 1st tertile)	– 0.038	0.162 **	– 0.160 *	– 0.284 ***	– 0.655 ***	<0.001	89.7
3rd ability tertile (versus 1st tertile)	0.259 ***	0.507 ***	0.047	0.208 *	– 0.109		
Support racial preferences in employment							
Linear term specification	– 0.071 *	– 0.051	– 0.126 **	– 0.260 ***	NA	<0.001	4.3
Dummy variable specification							
2nd ability tertile (versus 1st tertile)	– 0.377 ***	– 0.313 ***	– 0.695 ***	– 0.784 ***	NA	<0.001	– 0.2
3rd ability tertile (versus 1st tertile)	– 0.068	– 0.034	– 0.166 †	– 0.510 ***	NA		
Opportunity-enhancing policy attitudes							
Support tax incentives for business in black areas	– 0.043	0.193	– 0.174	– 0.063	0.144	<0.001	– 11.1
Support spending more on black schools	0.153	0.099	0.041	0.076	0.306 †	<0.001	– 15.2

Notes: Data come from white respondents to the 1972-2010 waves/ballots of the General Social Survey that included racial attitude items and the verbal ability test. Estimates are from ordinal logistic regression models that control for age, period, cohort, geographic region, education, father's education, mother's education, and father's occupational status. Results are combined estimates from 10 multiple imputation datasets.

† $p < .10$, * $p < .05$, ** $p < .01$, and *** $p < .001$ for two-sided tests of no effect.

Part C: Analyses based on the WAIS-R "Similarities" Subtest

This supplement describes a parallel analysis based on an abbreviated version of the "similarities" subtest from the WAIS-R, which measures abstract reasoning ability (Wechsler 1981). The WAIS-R similarities test was administed to a random subset of the GSS sample in 1994. It consists of eight questions in which respondents are asked to explain similarities between two different concepts. Answers to each question are awarded zero, one, or two points, depending on the quality of responses. Two points are awarded for general classifications that are pertinent to both concepts in the pair; one point is awarded for answers that mention specific properties or functions of both concepts in the pair; and zero points are awarded to answers that mention specific properties that are not shared between concepts or that provide an incorrect general classification.

For example, one of the test items asks "in what way are a dog and a lion alike?" A response explaining that both are animals or mammals would receive two points; a response explaining that they both have legs or tails would receive one point; and a response explaining that they both belong to the same species would receive zero points. Scores for each item are summed to yield a total score that ranges from 0 to 16 and that has a mean and standard deviation of 8.7 and 3.2, respectively. In the analyses below, I standardized total scores to have mean zero and unit variance.

I estimate logistic regression models similar to those described in the main text for the effects of reasoning ability on anti-black prejudice, attitudes toward segregation, and support for different racial policies. Because a number of racial attitude variables were not included along with the WAIS-R similarities test as part of the same GSS wave and ballot, parallel analyses are only performed for a subset of response variables. In addition, because the WAIS-R similarities

test was only included in a single GSS wave, these data lack the time-series structure needed to examine cohort effect moderation. Thus, I focus on the main effects of reasoning ability on response variables included as part of the same GSS ballot in 1994. Table C.1 contains the effective sample sizes for each response variable included in this analysis as well as descriptive statistics by tertiles of the reasoning ability distribution.

Table C.2 presents the net effects of reasoning ability on anti-black prejudice and attitudes toward segregation from multivariate logistic regression models. Consistent with results based on the verbal ability test, these estimates indicate that whites with higher reasoning ability are less likely than comparable whites with lower reasoning ability to report that "blacks are lazy." In addition, whites with higher reasoning ability are also more likely to report that "whites have no right to segregate their neighborhoods," net of other factors. These effects are both statistically significant and substantively large.

Estimates for the net effects of reasoning ability on racial policy attitudes are presented in Table C.3. Despite the strong liberalizing effects of reasoning ability on anti-black prejudice and attitudes toward residential segregation, whites with higher reasoning ability are no more likely than comparable whites with lower ability to support any of the remedial policies considered in this analysis. For example, based on specifications with a linear term for reasoning ability, the estimated effects on support for government aid for blacks and on support for school busing programs are negative and statistically significant, indicating that high-ability whites are actually less supportive of these policies than their low-ability peers. In general, the pattern of attitudinal effects based on the WAIS-R similarities test of reasoning ability is quite similar to that based on the GTVIT test of verbal ability, which suggests that this pattern is not merely an artifact of

measurement and that it likely reflects, at least in part, the relationship between racial attitudes and cognitive ability, broadly defined.

Table C.1. Anti-black prejudice, views on segregation and discrimination, and racial policy attitudes

Variable	Total sample		Reasoning ability tertiles		
	N	Percent	1st	2nd	3rd
Anti-black prejudice					
Blacks are lazy	1,216	46.4	55.3	46.0	35.5
Attitudes toward segregation and discrimination					
Whites have no right to segregate nhoods	1,648	83.4	73.9	85.4	92.1
Racial policy attitudes (redistributive policies)					
Support government aid for blacks	1,678	10.5	11.2	9.9	10.3
Support school busing programs	1,640	28.8	30.2	28.3	27.7
Support racial preferences in employment	1,217	10.8	12.5	8.5	11.7
Racial policy attitudes (opportunity-enhancing policies)					
Support open housing laws	1,678	60.5	54.1	62.1	66.4

Notes: Data come from white respondents to the 1994 wave of the General Social Survey. Results are combined estimates from 10 multiple imputation datasets.

Table C.2. Effects of reasoning ability on anti-black prejudice and attitudes toward segregation

Variable	LOR (SE)	OR (SE)	Marginal effects (SE)
Anti-black prejudice			
Blacks are lazy	– 0.194 (0.085) *	0.824 (0.070) *	– 0.045 (0.019) *
Attitudes toward segregation			
Whites have no right to segregate nhoods	0.403 (0.091) ***	1.497 (0.136) ***	0.049 (0.011) ***

Notes: Data come from white respondents to the 1994 wave of the General Social Survey. Effect estimates are based on logistic regression models that control for age, geographic region, education, father's education, mother's education, and father's occupational status. Results are combined estimates from 10 multiple imputation datasets.

† $p < .10$, * $p < .05$, ** $p < .01$, and *** $p < .001$ for two-sided tests of no effect.

Table C.3. Effects of reasoning ability on racial policy attitudes

Variable	LOR (SE)	OR (SE)	Marginal effects (SE)
Redistributive policy attitudes			
Support government aid for blacks			
Linear term specification	– 0.212 (0.102) *	0.809 (0.083) *	– 0.020 (0.009) *
Dummy variable specification			
2nd ability tertile (versus 1st tertile)	– 0.288 (0.225)	0.749 (0.168)	– 0.027 (0.021)
3rd ability tertile (versus 1st tertile)	– 0.339 (0.238)	0.713 (0.170) †	– 0.031 (0.022)
Support school busing programs			
Linear term specification	– 0.194 (0.010) *	0.823 (0.062) **	– 0.039 (0.015) ***
Dummy variable specification			
2nd ability tertile (versus 1st tertile)	– 0.227 (0.155)	0.797 (0.123) †	– 0.045 (0.031)
3rd ability tertile (versus 1st tertile)	– 0.278 (0.184)	0.757 (0.139) †	– 0.055 (0.036)
Support racial preferences in employment			
Linear term specification	– 0.158 (0.150)	0.854 (0.128)	– 0.015 (0.014)
Dummy variable specification			
2nd ability tertile (versus 1st tertile)	– 0.496 (0.273) †	0.609 (0.166) *	– 0.047 (0.026) †
3rd ability tertile (versus 1st tertile)	– 0.112 (0.318)	0.894 (0.284)	– 0.011 (0.030)
Opportunity-enhancing policy attitudes			
Support open housing laws	0.090 (0.066)	1.094 (0.073)	0.020 (0.015)

Notes: Data come from white respondents to the 1994 wave of the General Social Survey. Effect estimates are based on logistic regression models that control for age, geographic region, education, father's education, mother's education, and father's occupational status. Results are combined estimates from 10 multiple imputation datasets.

† $p < .10$, * $p < .05$, ** $p < .01$, and *** $p < .001$ for two-sided tests of no effect.