# Revisiting White Backlash: Does Race Affect Death Penalty Opinion?

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## Abstract

Peffley and Hurwitz (2007) is an influential study demonstrating the effects of race on death penalty attitudes. White respondents were found to increase their approval for capital punishment when informed that it disproportionately affects African Americans. We present results from two studies, including one conducted on a nationally representative sample, that fail to find support for this finding. Our first study, which was conducted on Amazon Mechanical Turk, consists of an exact replication as well as an additional manipulation that strengthens the treatment by adding information about a specific black (versus a white) defendant to the stimulus. However, we fail to elicit the backlash effect found in the original study using either manipulation despite having nearly three times the sample size. These findings are mirrored by replication data from a Time-sharing Experiments for the Social Sciences survey that closely replicates the Peffley and Hurwitz (2007) race framing treatment. The results from these studies suggest that the relationship between racial stimuli and death penalty support has changed since the original study, that racial backlash effects in this policy domain are not as robust as previously assumed, or both.

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Peffley and Hurwitz (2007) (hereafter PH) helps define how political science understands the role of race in public opinion toward the death penalty. Building on other studies showing the effect of racial attitudes on issue opinions (e.g., Dawson 1994; Bobo 1997; Schuman et al. 1997; Kinder and Winter 2001; Sanchez 2006), PH show that racial stimuli can have a substantial effect on whites' support for capital punishment. Strikingly, stating that the death penalty is disproportionately applied to African Americans induced a twelve percentage point *increase* in support for capital punishment among whites (Peffley and Hurwitz 2007, p. 1002). This backlash effect has been widely cited in political science (Knoll, Redlawsk, and Sanborn 2010; Wedeking 2010; Weber and Thornton 2012) and has also influenced research in criminal justice (Unnever and Cullen 2009; Pickett et al. 2012; Ramirez 2013), law (Lopez 2010; Unah 2009; Glaser, Karin, and Kahn 2015), sociology (Savelsberg and King 2011), and communication (Roh et al. 2015).

However, a very similar manipulation conducted in 2000 on a nationally representative sample found no effect on white support for the death penalty (Bobo and Johnson 2004, pp. 158–161), though one study did find greater punitiveness when the prison population was described having a greater percentage of black inmates (Hetey and Eberhardt 2014). And despite the significant influence of the original result, few subsequent studies have attempted to reproduce the effect in the years since its publication.<sup>1</sup> It is especially valuable to revisit this finding, which relies on data from 2001, given recent changes in the politics of race and crime. Death penalty support has ebbed somewhat in recent years after a marked decline in the 1990s and early 2000s (Gallup 2017; Shirley and Gelman 2014). Moreover, the Obama years were marked by seeming changes in the politics of race (Tesler and Sears 2010; Tesler 2016), including high-profile controversies over the role of

<sup>&</sup>lt;sup>1</sup>Notably, Coppock (2016) conducts a replication of the full-sample treatment effects in PH but does not attempt to replicate the white backlash effect. As part of a replication of twelve survey experiments, Coppock uses "difference-in-means without conditioning on subgroups or adjusting for background characteristics" (page 86). The replication finds a negative, statistically significant effect of the race frame on support for the death penalty for the full sample (i.e., results are pooled by respondent race).

race in the criminal justice system after the deaths of figures such as Michael Brown and Eric Garner. While Peffley, Hurwitz, and Mondak (forthcoming) find evidence of a backlash effect in a study conducted during Obama's tenure in office, the effect is limited to racially conservative white respondents of a single state (Washington). This limited evidence of white backlash contrasts with the more general finding in PH, which finds that the racial frame unconditionally increased support for the death penalty among a nationally representative sample of whites. Given these differing findings and persistent survey evidence suggesting that race continues to play a prominent role in public attitudes toward criminal justice (Hutchings 2015), understanding the effects of race on death penalty opinion may be more relevant today than ever.

Further, there are important methodological reasons to replicate the PH finding. As other social sciences have found, replicating surprising findings can increase their scientific validity. The continued study of any phenomenon by multiple research teams is necessary for firmly establishing important empirical results (Open Science Collaboration 2015). The value of replication may be particularly important in psychological studies given recent concerns about reproducibility (Klein et al. 2014). For these reasons, revisiting PH is scientifically valuable as well as substantively interesting.

In this note, we report the results of a replication and extension of PH to assess how racial framing affects whites' attitudes on the death penalty in contemporary America. Specifically, we conduct an exact replication of the written racial frame introduced in PH and add an experimental manipulation of a prototypical defendant's race that was intended to strengthen the effect of the racial frame. However, despite our larger sample size of white respondents and the added treatment condition, we do not observe evidence of a white backlash effect. We also do not observe a backlash effect in a replication of PH conducted on a nationally representative sample. The consistency of these null effects may result from changes since 2001 in the effects of racial stimuli on white attitudes about the death penalty or their willingness to express those attitudes in a survey context. Across two separate studies and six separate experimental manipulations, none of our analyses revealed statistically significant framing effects on death penalty support. Moreover, none of our subgroup analyses revealed statistically significant heterogeneous treatments effects among specific demographic groups, nor among those with measured psychological traits.

It is also possible that the white backlash effect is moderated by other factors that distinguish our study from the original, including survey mode and sampling method. Both studies we examine were conducted as online survey experiments, whereas the original PH data were produced via random digit telephone survey. Perhaps the presence of an interviewer on the other end of a telephone line conditioned responses in ways that online surveys do not. On the other hand, both our convenience sample of online respondents and a nationally representative sample failed to provide support for the original findings contained in PH, suggesting that the sampling method is not the most likely explanation. In any case, given the large size of the effect in the original study and our failure to find evidence of such an effect among two separate samples, our results suggest that there are important scope conditions that limit the white backlash phenomenon, suggesting the need for further studies to better understand its generalizability.

#### THE ORIGINAL PEFFLEY AND HURWITZ (2007) STUDY

The original PH study collected survey responses from the 2000–2001 National Race and Crime Survey, a national random-digit telephone survey of approximately 600 white and 600 black respondents. Embedded within the survey was an experiment that varied the frame in which the death penalty question was posed. The baseline experimental condition provided no frame to respondents and merely asked, "Do you favor or oppose the death penalty for persons convicted of murder?" This question was evaluated on a four-point scale that assessed whether the respondent strongly (or somewhat) favored (or opposed) the death penalty. The racial frame condition presented respondents with a statement claiming, "Some people say that the death penalty is unfair because most of the people who are executed are African Americans" before asking about the respondent's support for the death penalty. The experiment also included an innocence frame in which respondents heard the statement "Some people say that the death penalty is unfair because too many innocent people are being executed" prior to being asked about their support for capital punishment.

PH present their key finding as a table of differences in support for the death penalty across experimental groups and races (reproduced here as Table 1). In addition to finding statistically significant racial differences in how respondents reacted to each frame, the study finds statistically significant framing effects for both treatments among black respondents and for the racial treatment among white respondents. Among black respondents, the racial frame reduced support for the death penalty by twelve percentage points and the innocent frame reduced support by sixteen percentage points relative to the baseline condition. However, white respondents given the racial frame instead reported twelve percentage points *higher* approval for the practice than those in the baseline condition — a backlash effect.<sup>2</sup>

### STUDY 1: REPLICATION AND EXTENSION

#### Experimental design

We replicate the PH design by employing identical phrasing for the race frame manipulation and the outcome measure (we omit the innocence frame due to its lack of an effect on white respondents). We also extend the original design by including an additional experimental manipulation in order to elicit what we anticipated would be a more pronounced backlash effect. This treatment occurs prior to the administration of

<sup>&</sup>lt;sup>2</sup>As noted above, this finding did not replicate among all respondents in a 2012 YouGov survey conducted in the state of Washington by Peffley, Hurwitz, and Mondak (forthcoming). That article instead finds a backlash effect in response to racial framing of the death penalty only among white racial conservatives.

	<b>Baseline condition</b>	Race frame	Innocence frame
	Do you favor or oppose the death penalty for per- sons convicted of mur- der?	Some people say* that the death penalty is unfair be- cause most of the peo- ple who are executed are African Americans. Do you favor or oppose the death penalty for per- sons convicted of mur- der?	Some people say <sup>*</sup> that the death penalty is unfair because too many inno- cent people are being ex- ecuted. Do you favor or oppose the death penalty for per- sons convicted of mur-
	uer:	der:	der?
Whites Strongly oppose	17 95%	11 38%	20.09%
Somewhat oppose	17.09	11.79	15.63
Somewhat favor	29.06	25.20	29.46
Strongly favor	35.90	51.63	34.82
% Favor va bacalina	64.96%	76.83%	$64.28\%^{+}$
N	117	246	224
Blacks			
Strongly oppose	34.17%	43.60%	45.98%
Somewhat oppose	15.83	18.48	20.09
Somewhat favor	22.50	17.54	18.75
Strongly favor	27.50	20.38	15.18
% Favor vs. baseline	JU /0	$-12\%^*$ favor	$-16\%^*$ favor
N	120	211	224

Table 1:Death penalty support by race and treatment group (Peffley and Hurwitz 2007)

\*The experiment also randomly manipulated the source of the argument as either "some people" or "FBI statistics show that," which had no discernible influence on support for the death penalty.

\* Difference between baseline and argument condition is statistically significant ( $\leq .05$ ).

<sup>+</sup> Difference in treatment effect by race of respondent is statistically significant ( $\leq .05$ )

*Note:* Statistical significance was computed by estimating an ordered probit equation for the pooled data that regressed support for the death penalty on the frame (baseline, innocence, or racial), a dummy for race of respondent, and race  $\times$  argument interactions.

PH's textual frame and consists of introducing a specific defendant accused of murder. Respondents are provided with the mugshot of either a white or black male and accompanying text identifying the individual as facing capital murder charges for shooting a police officer (e.g., "Marvin Guy [or Henry Magee, for the white male] faced capital murder charges for shooting a police officer during a SWAT raid").<sup>3</sup> The control group sees neither the photograph nor the accompanying text. The specific stimuli used in each condition are provided in Table 2 below. The defendant manipulation presumably reinforces the racial element of capital punishment in two respects. First, it leverages the online survey medium by using photographs, a feature absent from the 2001 telephone survey in the original PH study. The photographs allow the respondents to focus their attention on an individual who can act as a prototypical example of others who face the death penalty. Second, the text accompanying each photograph informs the respondent of the defendant's crime. Prior research suggests that survey respondents respond in systematically different ways to questions about capital punishment given the context of the crime and details about the offenders (Burgason and Pazzani 2014).

Following the experimental manipulation, each respondent is asked about their support for the death penalty on a four-point Likert scale ranging from strongly oppose to strongly favor. This measure, which serves as our dependent variable, is identical to the one in PH. (See the Supplementary Appendix for the full text of the instrument and fullsize treatment photographs.)

#### Sample characteristics

Study 1 was conducted online in February 2016 among 2,134 respondents in the United States recruited from Amazon Mechanical Turk (AMT).<sup>4</sup> Among these respondents, 1,653 identified as white, 106 identified as black, and 375 identified as some other

<sup>&</sup>lt;sup>3</sup>Both are real individuals who were convicted of capital murder for these crimes.

<sup>&</sup>lt;sup>4</sup>This study was approved by the Committee for the Protection of Human Subjects at Dartmouth College (STUDY00029343) and the Institutional Review Board at Washington University in St. Louis (201602041). All participants provided informed consent before participating. We exclude respondents who failed to provide a unique AMT ID number, those who completed the entire survey in less than two minutes, and those who did not provide information about their race.

No frame	Race frame
Do you favor or oppose the death penalty for persons convicted of murder?	Some people say that the death penalty is unfair because most of the people who are executed are African Americans. Do you favor or oppose the death penalty for persons convicted of murder?
Henry Magee faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Do you favor or oppose the death penalty for persons convicted of murder?	Henry Magee faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Some people say that the death penalty is unfair because most of the people who are executed are African Americans. Do you favor or oppose the death penalty for persons convicted of murder?
Marvin Guy faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Do you favor or oppose the death penalty for persons convicted of murder?	Marvin Guy faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Some people say that the death penalty is unfair because most of the people who are executed are African Americans. Do you favor or oppose the death penalty for persons convicted of murder?

Table 2: **Experimental conditions** 

race. The subsequent analysis relies solely on the white respondents.<sup>5</sup> In general, our sample of whites skews younger, more educated, and more liberal than a nationally representative sample. Approximately half (47%) identify as female. With respect to age, 37% of respondents are 18–29 years old, 58% are 30–59, and 5% are aged 60+. About 35% of respondents have not completed a college degree; 49% attained some form of undergrad-

<sup>&</sup>lt;sup>5</sup>When we re-analyze the main models in the study using black respondents, we find similar results to those reported below among white respondents. However, these results must be considered tentative because each experimental group only contains about 20 respondents (see Supplementary Appendix Table S1, column 2).

uate academic degree; the remaining 15% possess a master's degree or higher. Ideologically, 29% identify as conservative, 51% as liberal, and 19% as moderate (not leaning in either direction). Similarly, the partisan identification of respondents is 29% Republican (including leaners), 55% Democrat (including leaners), and 15% independent or something else (not leaning toward either major party). These demographic characteristics are balanced across experimental groups (see Supplementary Appendix Table S13).

As with all Amazon Mechanical Turk surveys, this study does not draw upon a nationally representative sample. However, previous studies have broadly established the validity of Mechanical Turk samples for survey experiments (Berinsky, Huber, and Lenz 2012). By now, it has been proven effective in providing high-quality participant pools for studies in social psychology (Behrend et al. 2011; Chandler, Mueller, and Paolacci 2014; Summerville and Chartier 2012), cognitive psychology (Goodman, Cryder, and Cheema 2013; Paolacci, Chandler, and Ipeirotis 2010; Sprouse 2011), and political science (Clifford and Jerit 2014; Krupnikov and Levine 2014; Mullinix et al. 2015). Most notably, several previous AMT experiments have successfully elicited racial framing effects using experiments among respondents recruited from Mechanical Turk (Mullinix et al. 2015; Shen and LaBouff 2016; Callaghan and Olson 2017). AMT is thus well-suited to this experimental context, though we acknowledge that it underrepresents Republicans and political conservatives, both of whom may be more responsive to racial frames than their liberal/Democratic counterparts (Peffley and Hurwitz 2007; Peffley, Hurwitz, and Mondak forthcoming).<sup>6</sup>

<sup>&</sup>lt;sup>6</sup>Beyond the empirical evidence suggesting the validity of AMT samples in conducting racial framing experiments, we also note that the results presented here are consistent when we control for party and ideology, when we interact the treatment with indicators for Republican or conservative self-identification, and when we analyze a replication of these results on a nationally representative sample. See Supplementary Appendix Tables S2 and S12 as well as Study 2 for details.

	Death penalty support
Black defendant	-0.073
	(0.090)
White defendant	-0.004
	(0.090)
Race frame	0.032
	(0.091)
Black defendant $\times$ race frame	-0.037
	(0.130)
White defendant $\times$ race frame	-0.044
	(0.127)
Strongly oppose   Somewhat oppose	-0.833
	(0.068)
Somewhat oppose   Somewhat favor	-0.073
	(0.065)
Somewhat favor   Strongly favor	0.863
	(0.068)
Log-likelihood	-2249.004
N	1653

Table 3: Treatment effects among whites

Coefficients and estimated cutpoints from an ordered probit regression (white respondents only); standard errors in parentheses.

#### Experimental results

We observe no evidence of white backlash in our replication and extension of PH. Figure 1 shows the percentage of white respondents who support the death penalty across experimental treatments while Table 3 shows the results of an ordered probit model analyzing death penalty support by treatment condition. As these results demonstrate, there are no statistically significant differences across any of these conditions.<sup>7</sup> These results are also consistent when estimated using OLS models (Supplementary Appendix Table S1) and an ordered probit model controlling for all covariates used in the original PH model

<sup>&</sup>lt;sup>7</sup>A plot of mean support for the death penalty by condition is provided in Supplementary Appendix Figure S1; the results are substantively identical.

#### Figure 1: Death penalty support by experimental condition



Percentage support for the death penalty across experimental conditions (white respondents only). Error bars indicate 95% confidence intervals around percentages. Differences in support not significant in ordered probit or OLS models.

## (Supplementary Appendix Table S3).

Consider first the treatment condition with the race frame but no photograph or information about a specific defendant. This treatment exactly replicates the racial condition in the original PH experiment. Unlike the original experiment, exposure to the racial frame did not increase support for the death penalty among white respondents relative to the control condition. Telling white respondents that the death penalty is disproportion-ately administered to African Americans had no significant effect on their views toward the policy (ordered probit coefficient = 0.032, p = 0.723).

These null results are consistent even when the race of a prototypical defendant was manipulated. The effect of the race frame did not change significantly among respondents who received information about the name, crime committed, and picture of a black defendant (coefficient = -0.037, p = 0.775) or a white defendant convicted of capital murder (coefficient = -0.044, p = 0.730).<sup>8</sup> Moreover, the inability of the race frame to elicit a white backlash result remained consistently null even when conditioning on respondents' characteristics that might otherwise cause heterogeneity in responses to treatment.<sup>9</sup>

## STUDY 2: ADDITIONAL REPLICATION ANALYSIS

#### Experimental design

To verify the empirical results of our experiment, we analyze data collected as part of a related study by Jardina and Piston (2017a).<sup>10</sup> The survey, which was fielded in June 2016 by GfK on its nationally representative KnowledgePanel and archived online by Time-Sharing Experiments in the Social Sciences (Jardina and Piston 2017b), included a replication of the control and racial frame conditions and the outcome measure from Peffley and Hurwitz (2007).<sup>11</sup> The TESS data contains responses from 2,034 white Americans, whose demographic characteristics more closely mirror the white population than the respondents recruited for Study 1 on AMT. We analyze data from the 661 who served

<sup>&</sup>lt;sup>8</sup>The marginal effect of the race frame in the black defendant condition was -0.005 (p = 0.958). The marginal effect of the race frame in the white defendant condition was -0.012 (p = 0.895).

<sup>&</sup>lt;sup>9</sup>Though the race frame does not change white respondents' support for the death penalty significantly, backlash effects can occur among sub-samples of respondents (e.g., [self-citation redacted]). For instance, Peffley and Hurwitz (2007) originally note that the effectiveness of the race frame is greater among whites who attribute black criminality to intrinsic predispositions rather than systemic forces. Peffley, Hurwitz, and Mondak (forthcoming) draw similar conclusions about subgroup backlash effects among white racial frames increase death penalty support most among white racial conservatives. To examine possible subgroup differences in responses to racial framing, we ran additional ordered probit regressions testing for heterogeneous treatment effects among those who (1) attribute black crime to dispositional factors; (2) hold negative anti-black stereotypes; (3) identify as Republicar; (4) identify as ideologically conservative; (5) have less than a bachelor's degree in terms of formal education; and across age groups: (6) 18–29, (7) 30–59, and (8) 60+. The results of these models (which are displayed in Supplementary Appendix Tables S4, S5, S6, S7, S8, S9, S10, and S11, respectively) offer little evidence of heterogeneous effects. Because many of these tests are underpowered and the racial moderators were measured post-treatment (self-citation omitted), we cannot definitively say that no such effect exists, but we find no significant marginal effects among numerous subgroups.

<sup>&</sup>lt;sup>10</sup>These data first came to our attention when they were reanalyzed in Zigerell (2017), which also discussed the findings from Study 1 above.

<sup>&</sup>lt;sup>11</sup>The only difference from Study 1 is that the outcome measure was a seven-point Likert scale from "Strongly favor" to "Strongly oppose" rather than a four-point scale and uses "black" instead of "African Americans."

as a control group for a separate framing experiment within the survey, which avoids exposure to any additional treatments that might confound the relationship between death penalty support and the racial frame. Of the 661 respondents considered in this analysis, roughly 50% identified as female, 13% are aged 18-29, 47% are 30-59 years of age, and 40% are 60 years old or older. In terms of education, nearly 54% have not completed a college degree while 31% have completed some form of undergraduate education. 39% of respondents identify as ideologically conservative, 26% as ideologically liberal, and 34% as moderate (not leaning in either direction). 51% identify with the Republican party (including leaners), 46% identify as Democrats (including leaners), and 3% identify as independent or something else. These characteristics are balanced between conditions (see Supplementary Appendix Table S14).

#### Experimental results

Consistent with Study 1, the TESS data provides no evidence of a relationship between death penalty support and the racial frame. Figure 2 presents the percentage of respondents who support the death penalty across experimental groups.<sup>12</sup> Table 4 displays the coefficients of an ordered probit regression that models death penalty support as a function of treatment.<sup>13</sup> Both illustrate that the racial frame has no statistically or substantively significant effect. As in Study 1, support for the death penalty did not change measurably among white respondents who received a message indicating that the application of the death penalty disproportionately affects African Americans (ordered probit coefficient = -0.074, p = 0.377). We again also find that the effect of the race frame is not

<sup>&</sup>lt;sup>12</sup>An analogous plot of mean support is available in Supplementary Appendix Figure S2.

<sup>&</sup>lt;sup>13</sup>The Supplementary Appendix contains an OLS regression in Table S2 which offers similar findings.

	Death penalty support
Race frame	-0.074
	(0.083)
Strongly oppose   Somewhat oppose	-1.209
	(0.077)
Somewhat oppose   Slightly oppose	-0.923
	(0.071)
Slightly oppose   Neither favor nor oppose	-0.719
	(0.068)
Neither favor nor oppose   Slightly favor	-0.377
	(0.065)
Slightly favor   Somewhat favor	-0.110
	(0.065)
Somewhat favor   Strongly favor	0.419
	(0.066)
Log-Likelihood	-1166.335
N	654

## Table 4: Treatment effects among whites: TESS Data

Coefficients and estimated cutpoints from an ordered probit regression (white respondents only); standard errors in parentheses.

moderated by racial resentment or other potential correlates of racial conservatism.<sup>14</sup>

## CONCLUSION

Though perceptions of race undoubtedly influence citizens' attitudes on many issues, our results suggest that additional research is required to understand how racial frames affect whites' opinions on capital punishment. The inability of these studies to

<sup>&</sup>lt;sup>14</sup>Per Peffley, Hurwitz, and Mondak (forthcoming), we test for the possibility of heterogeneous treatment effects among those who (1) have high levels of racial resentment; (2) identify as Republican; (3) identify as ideologically conservative; and (4) have less than a bachelor's degree in terms of formal education. We also model the heterogeneity of treatment effects across age categories: 18–29, 30–59, and 60+. The results of these models fail to support the notion that the racial frame has different effects across demographic groups (though we caution that racial resentment is again measured post-treatment). None of the marginal effects of the racial frame were statistically distinct from 0 in any subgroup model (see Supplementary Appendix Table S12). As with the subgroup analyses of our AMT sample, these results do not fully rule out the presence of a white backlash given power limitations and post-treatment bias concerns (self-citation omitted), but they again provide no evidence of a discernible backlash effect.

#### Figure 2: Death penalty support by experimental condition: TESS Data



Percentage support for the death penalty across experimental conditions (white respondents only). Error bars indicate 95% confidence intervals around percentages. Differences in support not significant in ordered probit or OLS models.

elicit the white backlash effect found in Peffley and Hurwitz (2007) using the original treatment or a variant that might be expected to enhance the racialized frame of the death penalty suggests that it may be a false positive or subject to previously unknown scope conditions. It is also possible that perceptions of race and the death penalty changed in the 15 years between the original telephone survey in PH and our replication. Though our data do not indicate major changes in overall support for the death penalty since PH's 2001 sample, our inability to find consistent backlash effects among any subgroup across two studies offers evidence of systematic differences in how race frames the death penalty. It may be that politics under Presidents Obama and Trump has become so racialized that racial primes are increasingly ineffective (e.g., Valentino, Neuner, and Vandenbroek n.d.). Alternatively, perceptions on the issue may have changed; fewer Americans may now be

implicitly sympathetic to the disproportionate application of the death penalty by race. Finally, our failure to find any treatment effect could reflect a difference in survey mode (online versus telephone) or sample population (AMT and GfK versus a random-digit dial probability sample). To resolve these questions, further studies are needed using different populations, survey modes, treatment stimuli, and pre-treatment measures of potential moderators (e.g., need to evaluate) to better establish where, when, and for whom racial frames increase support for the death penalty among whites.

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## SUPPLEMENTARY APPENDIX Treatment photographs



Marvin Guy faced capital murder charges for shooting a police officer during a SWAT raid.



Henry Magee faced capital murder charges for shooting a police officer during a SWAT raid.

## Tables and figures

	Whites	Blacks	Others
Race frame	0.023	-0.137	-0.092
	(0.087)	(0.361)	(0.170)
	0.077	0 427	0 1 4 7
Black defendant	-0.077	-0.437	-0.14/
	(0.088)	(0.333)	(0.191)
White defendant	0.0003	-0.237	-0164
White defendant	(0.083)	(0.278)	(0.101)
	(0.003)	(0.578)	(0.150)
Race frame $ imes$ black defendant	-0.019	0.280	-0.040
	(0.125)	(0.450)	(0.247)
Race frame $\times$ white defendant	-0.041	-0.063	0.060
	(0.122)	(0.541)	(0.231)
	0 500	0.407	0 (0)
Constant	2.523	2.437	2.636
	(0.060)	(0.282)	(0.120)
	1.50	100	
<u>N</u>	1653	103	375

Table S1: Treatment effects on death penalty support (OLS)

Coefficients are the result of an ordinary least squares regression of the outcome variable on each treatment group. Robust standard errors noted in parentheses.

	Whites
Race frame	-0.170 (0.164)
Constant	5.015 (0.114)
N	654

Table S2: Treatment effects on death penalty support: TESS Data (OLS)

Coefficients are the result of an ordinary least squares regression of the outcome variable on each treatment group. Robust standard errors noted in parentheses.

Tables S4–S11 report tests for heterogeneous treatment effects among white respondents from the AMT sample who (1) attribute black crime to dispositional factors; (2) hold negative anti-black stereotypes; (3) identify as Republican; (4) identify as ideologically conservative; (5) have less than a bachelor's degree in terms of formal education; (6) are aged 18-29; (7) are aged 30-59; and (8) are aged 60 or older. Each of these characteristics is measured by indicator variables. Black crime attribution is coded as 1 when respondents answer at least one of the two survey items on black criminality with the dispositional factor. Responses are coded 0 if respondents answer both questions by citing systemic forces as causing black crime. Anti-black stereotypes is coded 1 when respondents identify more negative stereotypes of blacks than whites. Responses are coded 0 for those who cite equal numbers of negative stereotypes for both races, or fewer negative stereotypes of blacks than whites. The other indicators are respectively coded 1 when the respondent identifies as Republican (including Independent leaners), identifies as conservative (including those who identify as "slightly" and "somewhat" conservative), notes that their highest level of education is either "Did not graduate from high school," "High school diploma or the equivalent (GED)," "Some college," or "Associate degree," or belongs to the relevant age category.

Table S12 reports tests for heterogeneous treatment effects among white respondents from the TESS sample who (1) identify as Republican; (2) identify as ideologically conservative; (3) have less than a bachelor's degree in terms of formal education; (4) harbor high racial resentment against African Americans; (5) are aged 18-29; (6) are aged 30-59; and (7) are aged 60 or older. Each of these characteristics is measured by indicator variables. For the demographic traits indicators are respectively coded 1 when the respondent identifies as Republican (including Independent leaners), identifies as conservative (including those who identify as "slightly" and "somewhat" conservative), notes that their highest level of education is either "Did not graduate from high school," "High school diploma or the equivalent (GED)," "Some college," or "Associate degree," or belongs to the relevant age category. High racial resentment is coded 1 when respondents have a positive score on the composite racial resentment scale generated from aggregating the results of 4 questions. Responses are coded 0 for those who score 0 or less. The composite variable of racial resentment is created by adding the answers from two questions ("Irish, Italian, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors;" "It's really a matter of some people not trying hard enough; if blacks would only try harder they would be just as well off as whites.") and subtracting the answers from two other questions ("Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class;" "Over the past few years, blacks have gotten less than they deserve."). Each question's responses are on a 5-point Likert scale, such that each item is scored from 1 to 5, where "Strongly Disagree" is 1 and "Strongly Agree" is 5. The aggregated scores are then mean-centered so that positive values indicate the presence of resentment towards African Americans.





Mean support for the death penalty on a four-point Likert scale across experimental conditions. Error bars indicate 95% confidence intervals around means. Differences in support are not significant in ordered probit or OLS models.

	Death Penalty Support
Black defendant	-0.168
	(0.094)
White defendant	0.008
	(0.094)
Race frame	-0.030
	(0.095)
Black crime attribution	0.252
	(0.040)
General crime attribution	0.178
	(0.042)
Anti-black stereotypes	0.019
	(0.011)
Fear of crime	-0.079
	(0.034)
Punitiveness	0.243
	(0.021)
Party ID	-0.001
	(0.024)
Ideology	-0.125
	(0.029)
Education	-0.035
	(0.022)
Female	0.085
-	(0.057)
Income	0.031
	(0.017)
Age	-0.063
	(0.023)
Black defendant $\times$ race frame	0.129
	(0.136)
white defendant $\times$ race frame	-0.026
	(0.133)
Strongly Oppose   Somewhat Oppose	0.301
	(0.288)
Somewhat Oppose   Somewhat Favor	1.304
	(0.288)
Somewhat Favor   Strongly Favor	2.545
	(0.293)
Log-Likelihood	-1847.899
N	1634

# Table S3: Treatment effects on death penalty support:Peffley and Hurwitz (2007) controls

Coefficients and estimated cutpoints from an ordered probit regression (white respondents only); standard errors in parentheses.

Dispositional black crime attribution1.015 (0.132)Black defendant $-0.328$ (0.148)White defendant0.098 (0.144)Race frame(0.144)Dispositional black crime attribution × black defendant0.383 (0.189)Dispositional black crime attribution × white defendant $-0.328$ (0.146)Dispositional black crime attribution × white defendant $-0.383$ (0.189)Dispositional black crime attribution × race frame $-0.042$ (0.188)Black defendant × race frame $0.182$ (0.212)White defendant × race frame $-0.355$ (0.206)Dispositional black crime attribution × black defendant × race frame $-0.336$ (0.220)Dispositional black crime attribution × black defendant × race frame $-0.336$ (0.220)Dispositional black crime attribution × black defendant × race frame $-0.336$ (0.206)Dispositional black crime attribution × black defendant × race frame $-0.336$ (0.206)Dispositional black crime attribution × white defendant × race frame $-0.336$ (0.270)Dispositional black crime attribution × white defendant × race frame $-0.336$ (0.265)Strongly oppose   Somewhat oppose $-0.351$ (0.104)Somewhat oppose   Somewhat favor $0.530$ (0.104)Somewhat favor   Strongly favor $1.607$		Death penalty support
Image: defendant $(0.132)$ Black defendant $-0.328$ White defendant $(0.148)$ White defendant $(0.144)$ Race frame $(0.146)$ Dispositional black crime attribution × black defendant $(0.189)$ Dispositional black crime attribution × white defendant $-0.156$ $(0.186)$ $(0.186)$ Dispositional black crime attribution × race frame $-0.042$ $(0.188)$ $(0.212)$ White defendant × race frame $(0.212)$ White defendant × race frame $-0.355$ $(0.270)$ $(0.270)$ Dispositional black crime attribution × black defendant × race frame $(0.270)$ $(0.270)$ $(0.265)$ Strongly oppose   Somewhat oppose $-0.351$ $(0.104)$ $(0.104)$ Somewhat favor   Strongly favor $1.607$	Dispositional black crime attribution	1.015
Black defendant-0.328White defendant(0.148)White defendant(0.198)Race frame(0.146)Dispositional black crime attribution × black defendant0.383(0.189)(0.189)Dispositional black crime attribution × white defendant-0.156(0.186)(0.188)Black defendant × race frame-0.042(0.188)(0.188)Black defendant × race frame(0.212)White defendant × race frame-0.355(0.206)(0.206)Dispositional black crime attribution × black defendant × race frame(0.270)Dispositional black crime attribution × black defendant × race frame-0.355(0.270)(0.270)Dispositional black crime attribution × white defendant × race frame-0.366(0.270)(0.270)Dispositional black crime attribution × white defendant × race frame-0.351(0.265)(0.104)Somewhat oppose   Somewhat favor0.530(0.104)(0.104)	1	(0.132)
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White defendant0.098Race frame(0.144)Race frame(0.16)Dispositional black crime attribution × black defendant(0.189)Dispositional black crime attribution × white defendant-0.156(0.186)(0.186)Dispositional black crime attribution × race frame-0.042(0.188)(0.188)Black defendant × race frame0.182(0.212)(0.212)White defendant × race frame-0.355(0.206)(0.206)Dispositional black crime attribution × black defendant × race frame-0.336(0.270)(0.270)Dispositional black crime attribution × white defendant × race frame-0.351(0.265)(0.104)Somewhat oppose   Somewhat favor0.530(0.104)(0.104)Somewhat favor   Strongly favor1.607		(0.148)
Race frame(0.144)Dispositional black crime attribution × black defendant(0.146)Dispositional black crime attribution × white defendant(0.189)Dispositional black crime attribution × white defendant-0.156(0.186)(0.186)Dispositional black crime attribution × race frame-0.042(0.188)0.182Black defendant × race frame0.182(0.212)White defendant × race frame-0.355(0.206)0.190Dispositional black crime attribution × black defendant × race frame-0.336(0.270)0.1900.190Dispositional black crime attribution × white defendant × race frame0.493(0.270)0.5000.530Strongly oppose   Somewhat oppose-0.351(0.104)0.530(0.104)Somewhat oppose   Somewhat favor0.530(0.104)0.530Somewhat favor   Strongly favor1.607	White defendant	0.098
Race frame0.053 (0.146)Dispositional black crime attribution × black defendant0.383 (0.189)Dispositional black crime attribution × white defendant-0.156 (0.186)Dispositional black crime attribution × race frame-0.042 (0.188)Black defendant × race frame0.182 (0.212)White defendant × race frame-0.355 (0.206)Dispositional black crime attribution × black defendant × race frame-0.336 (0.270)Dispositional black crime attribution × white defendant × race frame-0.355 (0.206)Strongly oppose   Somewhat oppose-0.351 (0.104)Somewhat favor   Strongly favor1.607		(0.144)
Dispositional black crime attribution × black defendant(0.146)Dispositional black crime attribution × white defendant-0.383Dispositional black crime attribution × race frame-0.156Dispositional black crime attribution × race frame-0.042Black defendant × race frame0.1820.182(0.212)White defendant × race frame-0.3550.206)0.206)Dispositional black crime attribution × black defendant × race frame-0.3360.206)(0.270)Dispositional black crime attribution × white defendant × race frame-0.336(0.270)(0.265)Strongly oppose   Somewhat oppose-0.351(0.104)0.530Somewhat oppose   Somewhat favor0.530(0.104)0.530(0.104)0.530(0.104)0.530	Race frame	0.053
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Black defendant × race frame       0.182         White defendant × race frame       -0.355         (0.206)       -0.336         Dispositional black crime attribution × black defendant × race frame       -0.336         Dispositional black crime attribution × white defendant × race frame       0.493         (0.270)       0.550         Strongly oppose   Somewhat oppose       -0.351         Somewhat oppose   Somewhat favor       0.530         Somewhat favor   Strongly favor       1.607		(0.188)
White defendant × race frame $(0.212)$ $-0.355$ $(0.206)$ Dispositional black crime attribution × black defendant × race frame $-0.336$ $(0.270)$ Dispositional black crime attribution × white defendant × race frame $0.493$ $(0.265)$ Strongly oppose   Somewhat oppose $-0.351$ $(0.104)$ Somewhat oppose   Somewhat favor $0.530$ $(0.104)$ Somewhat favor   Strongly favor $1.607$	Black defendant $\times$ race frame	0.182
White defendant × race frame $-0.355$ (0.206)Dispositional black crime attribution × black defendant × race frame $-0.336$ (0.270)Dispositional black crime attribution × white defendant × race frame $0.493$ (0.265)Strongly oppose   Somewhat oppose $-0.351$ (0.104)Somewhat oppose   Somewhat favor $0.530$ (0.104)Somewhat favor   Strongly favor $1.607$		(0.212)
Dispositional black crime attribution × black defendant × race frame-0.336 (0.270)Dispositional black crime attribution × white defendant × race frame0.493 (0.265)Strongly oppose   Somewhat oppose-0.351 (0.104)Somewhat oppose   Somewhat favor0.530 (0.104)Somewhat favor   Strongly favor1.607	White defendant $\times$ race frame	-0.355
Dispositional black crime attribution × black defendant × race frame $-0.336$ (0.270)Dispositional black crime attribution × white defendant × race frame $0.493$ (0.265)Strongly oppose   Somewhat oppose $-0.351$ (0.104)Somewhat oppose   Somewhat favor $0.530$ (0.104)Somewhat favor   Strongly favor $1.607$		(0.206)
Dispositional black crime attribution × white defendant × race frame       (0.270) 0.493 (0.265)         Strongly oppose   Somewhat oppose       -0.351 (0.104)         Somewhat oppose   Somewhat favor       0.530 (0.104)         Somewhat favor   Strongly favor       1.607	Dispositional black crime attribution $\times$ black defendant $\times$ race frame	-0.336
Dispositional black crime attribution × white defendant × race frame       0.493 (0.265)         Strongly oppose   Somewhat oppose       -0.351 (0.104)         Somewhat oppose   Somewhat favor       0.530 (0.104)         Somewhat favor   Strongly favor       1.607		(0.270)
Strongly oppose   Somewhat oppose-0.351 (0.104)Somewhat oppose   Somewhat favor0.530 (0.104)Somewhat favor   Strongly favor1.607	Dispositional black crime attribution $\times$ white detendant $\times$ race frame	0.493
Strongly oppose   Somewhat oppose-0.351Somewhat oppose   Somewhat favor(0.104)Somewhat favor   Strongly favor1.607		(0.265)
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Somewhat oppose   Somewhat favor0.530(0.104)(0.104)Somewhat favor   Strongly favor1.607		(0.104)
(0.104) Somewhat favor   Strongly favor 1.607	Somewhat oppose   Somewhat favor	0.530
Somewhat favor   Strongly favor 1.607		(0.104)
	Somewhat favor   Strongly favor	1.607
(0.109)		(0.109)
Log-likelihood -2054.395	Log-likelihood	-2054.395
N 1651	N	1651

## Table S4: Heterogeneous treatment effects among whites: Black crime attribution

Coefficients are the result of an ordered probit regression (white respondents only). Dispositional black crime attribution is a binary indicator of whether the respondent attributes causes of black crime to dispositional (1) or systemic (0) factors. Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.129, for the black defendant photo and the racial frame is 1, and for the white defendant photo and the racial frame is 1.

	Death penalty support
Anti-black stereotypes	0.639
	(0.154)
Black defendant	-0.157
	(0.105)
White defendant	-0.007
	(0.104)
Race frame	-0.028
	(0.106)
Anti-black stereotypes $ imes$ black defendant	0.168
	(0.211)
Anti-black stereotypes $ imes$ white defendant	-0.056
	(0.214)
Anti-black stereotypes $\times$ race frame	0.118
	(0.212)
Black defendant $\times$ race frame	0.127
	(0.153)
White defendant $\times$ race frame	-0.092
	(0.149)
Anti-black stereotypes $\times$ black defendant $\times$ race frame	-0.486
	(0.298)
Anti-black stereotypes $\times$ white defendant $\times$ race frame	0.184
	(0.295)
Strongly oppose   Somewhat oppose	-0.729
	(0.076)
Somewhat oppose   Somewhat favor	0.069
	(0.074)
Somewhat favor   Strongly favor	1.051
	(0.078)
Log-likelihood	-2167.765
N	1643

## Table S5: Heterogeneous treatment effects among whites: Anti-black stereotypes

Coefficients are the result of an ordered probit regression (white respondents only). Anti-black stereotypes is a binary indicator of whether the respondent holds more negative stereotypes of blacks than whites (1) or else (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.850, for the black defendant photo and the racial frame is 1, and for the white defendant photo and the racial frame is 0.999.

	Death penalty support
Republican	1.009
*	(0.147)
Black defendant	-0.121
	(0.108)
White defendant	0.072
	(0.106)
Race frame	-0.026
	(0.109)
Republican $ imes$ black defendant	-0.045
	(0.202)
Republican $ imes$ white defendant	-0.344
	(0.204)
Republican $\times$ race frame	-0.040
	(0.202)
Black defendant $\times$ race frame	0.131
	(0.155)
White defendant $\times$ race frame	-0.087
	(0.153)
Republican $\times$ black defendant $\times$ race frame	-0.081
	(0.294)
Republican $\times$ white defendant $\times$ race frame	0.358
	(0.284)
Strongly oppose   Somewhat oppose	-0.640
	(0.077)
Somewhat oppose   Somewhat favor	0.184
	(0.076)
Somewhat favor   Strongly favor	1.203
	(0.080)
Log-likelihood	-2130.063
N	1651

## Table S6: Heterogeneous treatment effects among whites: Republican partisanship

Coefficients are the result of an ordered probit regression (white respondents only). Republican is a binary indicator of whether the respondent identifies as a Republican (1) or otherwise (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.725, for the black defendant photo and the racial frame is 0.085, and for the white defendant photo and the racial frame is 1.

	Death penalty support
Conservative	0.903
	(0.145)
Black defendant	-0.125
	(0.110)
White defendant	0.103
	(0.105)
Race frame	-0.038
	(0.109)
Conservative $\times$ black defendant	-0.063
	(0.199)
Conservative $\times$ white defendant	-0.330
	(0.209)
Conservative $\times$ race frame	0.025
	(0.200)
Black defendant $ imes$ race frame	0.108
	(0.157)
White defendant $\times$ race frame	-0.123
	(0.152)
Conservative $\times$ black defendant $\times$ race frame	0.011
	(0.289)
Conservative $\times$ white defendant $\times$ race frame	0.413
	(0.288)
Strongly oppose   Somewhat oppose	-0.653
	(0.078)
Somewhat oppose   Somewhat favor	0.162
	(0.076)
Somewhat favor   Strongly favor	1.176
	(0.080)
Log-likelihood	-2143.559
N	1653

## Table S7: Heterogeneous treatment effects among whites: Ideological conservatism

Coefficients are the result of an ordered probit regression (white respondents only). Conservative is a binary indicator of whether the respondent identifies as an ideological conservative (1) or otherwise (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.082, for the black defendant photo and the racial frame is 0.951, and for the white defendant photo and the racial frame is 1.

	Death penalty support
Low education	0.473
	(0.133)
Black defendant	0.140
	(0.114)
White defendant	0.136
	(0.112)
Race frame	0.114
	(0.116)
Low education $ imes$ black defendant	-0.585
	(0.188)
Low education $\times$ white defendant	-0.366
	(0.189)
Low education $\times$ race frame	-0.260
	(0.186)
Black defendant $ imes$ race frame	-0.198
	(0.164)
White defendant $\times$ race frame	-0.115
	(0.159)
Low education $\times$ black defendant $\times$ race frame	0.481
	(0.270)
Low education $\times$ white defendant $\times$ race frame	0.220
	(0.268)
Strongly oppose   Somewhat oppose	-0.668
	(0.082)
Somewhat oppose   Somewhat favor	0.098
	(0.081)
Somewhat favor   Strongly favor	1.040
	(0.084)
Log-likelihood	-2238.612
N	1652

## Table S8: Heterogeneous treatment effects among whites: Low education

Coefficients are the result of an ordered probit regression (white respondents only). Low education is a binary indicator of whether the respondent has not completed a bachelor's degree (1) or otherwise (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 1, for the black defendant photo and the racial frame is 0.999, and for the white defendant photo and the racial frame is 0.370.

Age 18-29 $-0.069$ Black defendant $-0.054$ (0.130) $-0.054$ (0.114)       White defendant         White defendant $-0.002$ (0.114)       Race frame         0.096       (0.115)         Age 18-29 × black defendant $-0.059$ (0.187)       Age 18-29 × white defendant         (0.187)       Age 18-29 × race frame         (0.185)       Age 18-29 × race frame         (0.185)       Age 18-29 × race frame         (0.165)       White defendant × race frame         (0.165)       (0.165)         White defendant × race frame $-0.164$ (0.161)       Age 18-29 × black defendant × race frame $0.373$ (0.268)       Age 18-29 × white defendant × race frame $0.320$ (0.263)       Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)       (0.084)       (0.084)         Somewhat Oppose   Somewhat Favor $-0.100$ (0.084)       (0.084)         Somewhat Favor   Strongly Favor $0.839$ (0.084) $-0.246.336$ N $1653$		Death penalty support
Black defendant $(0.130)$ Black defendant $-0.054$ (0.114)       White defendant         White defendant $-0.002$ (0.114)       Race frame         0.096       (0.115)         Age 18-29 × black defendant $-0.059$ Age 18-29 × white defendant $-0.007$ Age 18-29 × white defendant $-0.007$ Age 18-29 × race frame $-0.167$ Black defendant × race frame $-0.167$ White defendant × race frame $-0.167$ White defendant × race frame $-0.0268$ Age 18-29 × black defendant × race frame $0.373$ (0.268)       Age 18-29 × black defendant × race frame $0.320$ (0.263)       Strongly Oppose   Somewhat Oppose $-0.862$ (0.084) $0.084$ Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)       Somewhat Favor   Strongly Favor $0.839$ $0.084$ Log-Likelihood $-2246.336$ $N$ $1653$	Age 18-29	-0.069
Black defendant $-0.054$ (0.114)White defendant $-0.002$ (0.114)Race frame $0.096$ (0.115)Age 18-29 × black defendant $-0.059$ (0.187)Age 18-29 × white defendant $-0.007$ (0.185)Age 18-29 × race frame $-0.167$ (0.186)Black defendant × race frame $-0.167$ (0.186)Black defendant × race frame $-0.167$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × black defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ N	-	(0.130)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Black defendant	-0.054
White defendant $-0.002$ Race frame $0.096$ (0.114)       (0.115)         Age 18-29 × black defendant $-0.059$ (0.187)       (0.187)         Age 18-29 × white defendant $-0.007$ (0.185)       (0.185)         Age 18-29 × race frame $-0.167$ (0.186)       (0.186)         Black defendant × race frame $-0.176$ (0.165)       (0.165)         White defendant × race frame $-0.164$ (0.161)       Age 18-29 × black defendant × race frame $0.373$ (0.268)       Age 18-29 × white defendant × race frame $0.320$ (0.263)       Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)       Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)       Somewhat Favor   Strongly Favor $0.839$ Log-Likelihood $-2246.336$ N		(0.114)
	White defendant	-0.002
Race frame $0.096$ (0.115)Age 18-29 × black defendant $-0.059$ (0.187)Age 18-29 × white defendant $-0.007$ (0.185)Age 18-29 × race frame $-0.167$ (0.186)Black defendant × race frame $-0.176$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × black defendant × race frame $0.320$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ N		(0.114)
Age 18-29 × black defendant $-0.059$ $(0.187)$ Age 18-29 × white defendant $-0.007$ $(0.185)$ Age 18-29 × race frame $-0.167$ $(0.186)$ Black defendant × race frame $-0.176$ $(0.165)$ White defendant × race frame $-0.164$ $(0.161)$ Age 18-29 × black defendant × race frame $0.373$ $(0.268)$ Age 18-29 × white defendant × race frame $0.373$ $(0.268)$ Strongly Oppose   Somewhat Oppose $-0.862$ $(0.084)$ Somewhat Oppose   Somewhat Favor $-0.100$ $(0.082)$ Somewhat Favor   Strongly Favor $0.839$ $(0.084)$ Log-Likelihood $-2246.336$ $1653$	Race frame	0.096
Age 18-29 × black defendant $-0.059$ (0.187)Age 18-29 × white defendant $-0.007$ (0.185)Age 18-29 × race frame $-0.167$ (0.186)Black defendant × race frame $-0.176$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ 1653		(0.115)
Age 18-29 × white defendant $-0.007$ (0.185)Age 18-29 × race frame $-0.167$ (0.186)Black defendant × race frame $-0.176$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ 1653	Age 18-29 $ imes$ black defendant	-0.059
Age 18-29 × white defendant $-0.007$ (0.185)Age 18-29 × race frame $-0.167$ (0.186)Black defendant × race frame $-0.176$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ 1653		(0.187)
Age 18-29 × race frame $(0.185)$ $-0.167$ $(0.186)$ Black defendant × race frame $-0.176$ $(0.165)$ White defendant × race frame $-0.164$ $(0.161)$ Age 18-29 × black defendant × race frame $0.373$ $(0.268)$ Age 18-29 × white defendant × race frame $0.320$ $(0.263)$ Strongly Oppose   Somewhat Oppose $-0.862$ $(0.084)$ Somewhat Oppose   Somewhat Favor $-0.100$ $(0.082)$ Somewhat Favor   Strongly Favor $0.839$ $(0.084)$ Log-Likelihood $-2246.336$ $1653$	Age 18-29 $ imes$ white defendant	-0.007
Age 18-29 × race frame $-0.167$ (0.186)Black defendant × race frame $-0.176$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ 1653		(0.185)
Black defendant × race frame $(0.186)$ $-0.176$ $(0.165)$ White defendant × race frame $-0.164$ $(0.161)$ Age 18-29 × black defendant × race frame $0.373$ $(0.268)$ Age 18-29 × white defendant × race frame $0.320$ $(0.263)$ Strongly Oppose   Somewhat Oppose $-0.862$ $(0.084)$ Somewhat Oppose   Somewhat Favor $-0.100$ $(0.082)$ Somewhat Favor   Strongly Favor $0.839$ $(0.084)$ Log-Likelihood $-2246.336$ $1653$	Age 18-29 $\times$ race frame	-0.167
Black defendant × race frame $-0.176$ (0.165)White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ 1653		(0.186)
$ \begin{array}{c} (0.165) \\ \text{White defendant} \times \text{race frame} & -0.164 \\ (0.161) \\ \text{Age 18-29} \times \text{black defendant} \times \text{race frame} & 0.373 \\ (0.268) \\ \text{Age 18-29} \times \text{white defendant} \times \text{race frame} & 0.320 \\ (0.263) \\ \hline \\ \text{Strongly Oppose} \mid \text{Somewhat Oppose} & -0.862 \\ (0.084) \\ \text{Somewhat Oppose} \mid \text{Somewhat Favor} & -0.100 \\ (0.082) \\ \hline \\ \text{Somewhat Favor} \mid \text{Strongly Favor} & 0.839 \\ (0.084) \\ \hline \\ \text{Log-Likelihood} & -2246.336 \\ \text{N} & 1653 \\ \end{array} $	Black defendant $\times$ race frame	-0.176
White defendant × race frame $-0.164$ (0.161)Age 18-29 × black defendant × race frame $0.373$ (0.268)Age 18-29 × white defendant × race frame $0.320$ (0.263)Strongly Oppose   Somewhat Oppose $-0.862$ (0.084)Somewhat Oppose   Somewhat Favor $-0.100$ (0.082)Somewhat Favor   Strongly Favor $0.839$ (0.084)Log-Likelihood $-2246.336$ 1653		(0.165)
Age 18-29 × black defendant × race frame $(0.161)$ Age 18-29 × white defendant × race frame $(0.268)$ Age 18-29 × white defendant × race frame $(0.263)$ Strongly Oppose   Somewhat Oppose $-0.862$ Somewhat Oppose   Somewhat Favor $-0.100$ Somewhat Favor   Strongly Favor $0.839$ Log-Likelihood $-2246.336$ N $1653$	White defendant $\times$ race frame	-0.164
Age 18-29 × black defendant × race frame $0.373$ Age 18-29 × white defendant × race frame $(0.268)$ Age 18-29 × white defendant × race frame $0.320$ $(0.263)$ $(0.263)$ Strongly Oppose   Somewhat Oppose $-0.862$ Somewhat Oppose   Somewhat Favor $-0.100$ $(0.082)$ $(0.082)$ Somewhat Favor   Strongly Favor $0.839$ Log-Likelihood $-2246.336$ N $1653$		(0.161)
Age 18-29 × white defendant × race frame $(0.268)$ $(0.263)$ Strongly Oppose   Somewhat Oppose $-0.862$ $(0.084)$ Somewhat Oppose   Somewhat Favor $-0.100$ $(0.082)$ Somewhat Favor   Strongly Favor $0.839$ $(0.084)$ Log-Likelihood $-2246.336$ $1653$	Age 18-29 $\times$ black defendant $\times$ race frame	0.373
Age 18-29 × white defendant × race frame0.320 (0.263)Strongly Oppose   Somewhat Oppose-0.862 (0.084)Somewhat Oppose   Somewhat Favor-0.100 (0.082)Somewhat Favor   Strongly Favor0.839 (0.084)Log-Likelihood-2246.336 1653		(0.268)
Strongly Oppose   Somewhat Oppose-0.862 (0.084)Somewhat Oppose   Somewhat Favor-0.100 (0.082)Somewhat Favor   Strongly Favor0.839 (0.084)Log-Likelihood-2246.336 1653	Age 18-29 $\times$ white defendant $\times$ race frame	0.320
Strongly Oppose   Somewhat Oppose-0.862Somewhat Oppose   Somewhat Favor(0.084)Somewhat Oppose   Somewhat Favor(0.082)Somewhat Favor   Strongly Favor0.839(0.084)(0.084)Log-Likelihood-2246.336N1653		(0.263)
Somewhat Oppose   Somewhat Favor(0.084) -0.100 (0.082)Somewhat Favor   Strongly Favor0.839 (0.084)Log-Likelihood-2246.336 1653	Strongly Oppose   Somewhat Oppose	-0.862
Somewhat Oppose   Somewhat Favor-0.100 (0.082)Somewhat Favor   Strongly Favor0.839 (0.084)Log-Likelihood-2246.336 1653		(0.084)
Somewhat Favor   Strongly Favor         (0.082)           Log-Likelihood         -2246.336           N         1653	Somewhat Oppose   Somewhat Favor	-0.100
Somewhat Favor   Strongly Favor0.839 (0.084)Log-Likelihood-2246.336 1653		(0.082)
(0.084) Log-Likelihood -2246.336 N 1653	Somewhat Favor   Strongly Favor	0.839
Log-Likelihood -2246.336 N 1653		(0.084)
N 1653	Log-Likelihood	-2246.336
	N	1653

## Table S9: Heterogeneous treatment effects among whites: Age 18-29

Coefficients are the result of an ordered probit regression (white respondents only). Age 18-29 is a binary indicator of whether the respondent's age falls within that age range (1) or otherwise (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.947, for the black defendant photo and the racial frame is 0.820, and for the white defendant photo and the racial frame is 0.988.

	Death penalty support
Age 30-59	0.072
	(0.128)
Black defendant	-0.125
	(0.140)
White defendant	0.018
	(0.135)
Race frame	-0.037
	(0.137)
Age 30-59 $ imes$ black defendant	0.083
	(0.183)
Age 30-59 $ imes$ white defendant	-0.037
	(0.181)
Age 30-59 $ imes$ race frame	0.123
	(0.183)
Black defendant $ imes$ race frame	0.191
	(0.199)
White defendant $\times$ race frame	0.047
	(0.194)
Age 30-59 $\times$ black defendant $\times$ race frame	-0.395
	(0.263)
Age 30-59 $\times$ white defendant $\times$ race frame	-0.162
	(0.257)
Strongly Oppose   Somewhat Oppose	-0.794
	(0.099)
Somewhat Oppose   Somewhat Favor	-0.032
	(0.098)
Somewhat Favor   Strongly Favor	0.906
	(0.099)
Log-Likelihood	-2246.618
N	1653

## Table S10: Heterogeneous treatment effects among whites: Age 30-59

Coefficients are the result of an ordered probit regression (white respondents only). Age 30-59 is a binary indicator of whether the respondent's age falls within that age range (1) or otherwise (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.999, for the black defendant photo and the racial frame is 1, and for the white defendant photo and the racial frame is 0.621.

	Death penalty support
Age 60+	-0.031
-	(0.296)
Black defendant	-0.066
	(0.092)
White defendant	-0.015
	(0.093)
Race frame	0.022
	(0.093)
Age 60+ $\times$ black defendant	-0.173
	(0.442)
Age 60+ $\times$ white defendant	0.156
	(0.377)
Age 60+ $\times$ race frame	0.184
	(0.412)
Black defendant $\times$ race frame	-0.046
	(0.133)
White defendant $\times$ race frame	-0.007
	(0.131)
Age 60+ $\times$ black defendant $\times$ race frame	0.214
	(0.602)
Age $60+ \times$ white defendant $\times$ race frame	-0.651
	(0.554)
Strongly Oppose   Somewhat Oppose	-0.836
	(0.069)
Somewhat Oppose   Somewhat Favor	-0.074
	(0.067)
Somewhat Favor   Strongly Favor	0.863
	(0.069)
Log-Likelihood	-2247.584
N	1653

Table S11: Heterogeneous treatment effects among whites: Age 60+

Coefficients are the result of an ordered probit regression (white respondents only). Age 60+ is a binary indicator of whether the respondent's age falls above age 60 (1) or otherwise (0). Standard errors noted in parentheses. The power of the test for the marginal effect of the racial frame is 0.315, for the black defendant photo and the racial frame is 0.693, and for the white defendant photo and the racial frame is 0.951.

	1	2	3	4	5	6	7
Race frame	-0.055	-0.140	0.027	0.039	-0.069	-0.182	0.017
Republican	(0.117) 0.682 (0.120)	(0.107)	(0.121)	(0.139)	(0.089)	(0.114)	(0.108)
Republican $\times$ race frame	0.028 (0.168)						
Conservative	(0.100)	0.418 (0.122)					
Conservative $\times$ race frame		(0.122) (0.272) (0.174)					
Low education		(0.174)	0.566				
Low education $\times$ race frame			(0.120) -0.254 (0.168)				
High racial resentment			(0.100)	1.084			
High racial resentment $\times$ race frame				(0.130) -0.044 (0.176)			
Age 18-29				(0.170)	-0.012		
Age 18-29 $\times$ race frame					(0.109) -0.043 (0.247)		
Age 30-59					(0.247)	0.002	
Age 30-59 $\times$ race frame						(0.119) 0.231 (0.167)	
Age 60+						(0.107)	0.004
Age 60+ $\times$ race frame							(0.122) -0.220 (0.170)
Strongly Oppose   Somewhat Oppose	-0.917	-1.069	-0.959	-0.623	-1.211	-1.213	-1.213
Somewhat Oppose   Slightly Oppose	(0.097) -0.619	(0.091) -0.775	(0.095) -0.663	(0.111) -0.302	(0.080) -0.925	(0.095) -0.924	(0.091) -0.924
Slightly Oppose   Neither Favor nor Oppose	(0.093) -0.404	(0.087) -0.568	(0.091) -0.453	(0.109) -0.073	(0.075) -0.721	(0.091) -0.719	(0.085) -0.718
Neither Favor nor Oppose   Slightly Favor	(0.091) -0.038 (0.000)	(0.085) -0.224 (0.082)	(0.089) -0.104	(0.108) 0.321 (0.108)	(0.073) -0.379 (0.070)	(0.088) -0.375 (0.086)	(0.083) -0.375
Slightly Favor   Somewhat Favor	(0.090) 0.249 (0.090)	(0.083) 0.058 (0.082)	(0.088) 0.167 (0.087)	(0.108) 0.630 (0.100)	(0.070) -0.112 (0.060)	(0.000) -0.108 (0.085)	(0.080) -0.107 (0.080)
Somewhat Favor   Strongly Favor	0.813 (0.093)	(0.003) 0.614 (0.085)	(0.087) 0.710 (0.090)	(0.109) 1.226 (0.114)	(0.009) 0.418 (0.070)	(0.083) 0.422 (0.086)	(0.080) 0.422 (0.081)
Log-Likelihood	-1132.836	-1131.716	-1151.691	-1077.663	-1166.287	-1164.354	-1164.681
Power	0.543	1	1	0.073	0.588	0.946	1
Ν	654	648	654	643	654	654	654

## Table S12: Heterogeneous treatment effects among whites: TESS Data

Coefficients are the result of an ordered probit regression (white respondents only). The indicators are respectively coded 1 when the respondent identifies as Republican (including Independent leaners), identifies as conservative (including those who identify as "slightly" and "somewhat" conservative), notes that their highest level of education is either "Did not graduate from high school," "High school diploma or the equivalent (GED)," "Some college," or "Associate degree," falls into the relevant age category, or receives a positive score on the racial resentment scale. Standard errors noted in parentheses. Power refers to the power of the test for statistical significance of the marginal effect of the racial frame for the corresponding subgroup.

Condition	Party	Ideology	Education	Gender	Income	Age
No photo/race frame	-0.334 (0.167)	-0.203 (0.154)	-0.057 (0.112)	0.0003 (0.042)	0.038 (0.140)	0.044 (0.104)
Black defendant/no race frame	-0.268	-0.166	-0.021	0.038	0.005	0.056
	(0.166)	(0.154)	(0.112)	(0.042)	(0.139)	(0.103)
Black defendant/race frame	0.039	0.111	0.066	0.035	0.170	0.086
	(0.171)	(0.158)	(0.115)	(0.043)	(0.143)	(0.106)
White defendant/no race frame	0.020	0.144	0.044	0.011	0.047	0.113
	(0.166)	(0.154)	(0.112)	(0.042)	(0.139)	(0.103)
White defendant/race frame	-0.177 (0.165)	-0.077 (0.152)	0.178 (0.111)	0.048 (0.042)	0.129 (0.138)	0.088 (0.102)
Constant (control condition)	4.693	4.555	4.240	0.509	3.376	2.110
	(0.117)	(0.108)	(0.079)	(0.030)	(0.098)	(0.073)
N	1,651	1653	1652	1652	1650	1653
R <sup>2</sup>	0.006	0.005	0.003	0.001	0.001	0.001

## Table S13: Balance checks for demographic covariates

Coefficients are the result of OLS regression of each demographic covariate on the experimental conditions. The constant represents the control condition, which saw no information about a defendant and did not receive the race frame about the death penalty. Standard errors noted in parentheses. Note that the treatment group receiving no photograph and the racial frame identifies as statistically significantly more Democratic than the control group.

	Party	Ideology	Education	Gender	Income	Age
Race frame	0.178	0.120	-0.253	0.026	-0.042	0.038
	(0.161)	(0.119)	(0.128)	(0.039)	(0.138)	(0.129)
Constant (control condition)	3.831	3.679	3.720	0.489	4.098	3.846
	(0.115)	(0.085)	(0.091)	(0.028)	(0.098)	(0.092)
N	661	654	661	661	661	661
R <sup>2</sup>	0.002	0.002	0.006	0.001	0.0001	0.0001

Table S14: Balance checks for demographic covariates: TESS Data

Coefficients are the result of OLS regression of each demographic covariate on the experimental conditions. The constant represents the control condition, which saw no information about a defendant and did not receive the race frame about the death penalty. Standard errors noted in parentheses.





Mean support for the death penalty on a seven-point Likert scale across experimental conditions. Error bars indicate 95% confidence intervals around means. Differences in support are not significant in ordered probit or OLS models.

## Survey instrument

How old are you? -Under 18 [end survey if selected] -18-29 -30-39 -40-49 -50-59 -60-69 -70-79

-80+

Please check one or more categories below to indicate what race(s) you consider yourself to be.

-White

-Black or African American -American Indian or Alaska Native -Asian/Pacific Islander -Multi-racial

-Other

Are you of Spanish or Hispanic origin or descent?

-Yes

-No

-Don't know

No frame	Race frame
Do you favor or oppose the death penalty for persons convicted of murder? -Strongly favor -Somewhat favor -Somewhat oppose -Strongly oppose	Some people say that the death penalty is unfair because most of the people who are executed are African Americans. Do you favor or oppose the death penalty for persons convicted of murder? -Strongly favor -Somewhat favor -Somewhat oppose -Strongly oppose
Henry Magee faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Do you favor or oppose the death penalty for persons convicted of murder? -Strongly favor -Somewhat favor -Somewhat oppose -Strongly oppose	Henry Magee faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Some people say that the death penalty is unfair because most of the people who are executed are African Americans. Do you favor or oppose the death penalty for persons convicted of murder? -Strongly favor -Somewhat favor -Somewhat oppose -Strongly oppose
Marvin Guy faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Do you favor or oppose the death penalty for persons convicted of murder? -Strongly favor -Somewhat favor -Somewhat oppose -Strongly oppose	Marvin Guy faced capital murder charges for shooting a police officer during a SWAT raid. [Page break] Some people say that the death penalty is unfair because most of the people who are executed are African Americans. Do you favor or oppose the death penalty for persons convicted of murder? -Strongly favor -Somewhat favor -Somewhat oppose -Strongly oppose

## Experimental randomization (1/6 probability)

Statistics show that African Americans are more often arrested and sent to prison than are whites. The people we talk to have different ideas about why this occurs. We're going to describe some reasons people have suggested, two at a time, and ask you to choose which is the more important reason why, in your view, blacks are more often arrested and sent to prison than whites.

Do you feel that blacks are more often arrested and sent to prison than whites because the police and justice system are biased against blacks, OR blacks are just more likely to commit crimes?

-The police and justice system are biased against blacks

-Blacks are just more likely to commit crimes

Do you feel that blacks are more often arrested and sent to prison than whites because the police and justice system are biased against blacks, OR many younger blacks don't respect authority?

-The police and justice system are biased against blacks

-Many younger blacks don't respect authority

Please indicate whether you agree or disagree with the following statements.

Parents need to stop using physical punishment as a way of getting their children to behave properly.

-Strongly agree -Somewhat agree -Somewhat disagree

-Strongly disagree

One good way to teach certain people right from wrong is to give them a good stiff punishment when they get out of line.

- -Strongly agree
- -Somewhat agree
- -Somewhat disagree
- -Strongly disagree

How worried are you about you or a member of your family being a victim of a serious crime?

-Very worried -Somewhat worried -Only a little worried -Not worried

Most of the people we talk to have different ideas about the reasons for crime in America

these days. We are going to describe some reasons people have suggested, two at a time, and ask you to choose the one you feel is the more important cause of crime.

Do you feel crime is caused more by poverty and lack of opportunity, OR by people being too lazy to work for an honest living? -Poverty and lack of opportunity -People being too lazy to work for an honest living

Do you feel crime is caused more by poverty and lack of opportunity, OR because many younger people don't respect authority? -Poverty and lack of opportunity -Many younger people don't respect authority

How well do you think each of these terms describes most black people? (a) Lazy (b) Prone to violence (c) Prefer to live on welfare (d) Hostile (e) Dishonest

-Very accurate -Somewhat accurate -Not very accurate -Not at all accurate

How well do you think each of these terms describes most white people? (a) Lazy (b) Prone to violence (c) Prefer to live on welfare (d) Hostile (e) Dishonest

-Very accurate -Somewhat accurate -Not very accurate -Not at all accurate

Are you male or female? -Male -Female

What is the highest degree or level of school you have completed?

-Did not graduate from high school -High school diploma or the equivalent (GED) -Some college -Associate degree -Bachelor's degree -Master's degree -Professional or doctorate degree

What is your current employment status? -Employed full-time -Employed part-time -Not employed but looking for work -Not employed; not looking for work -Homemaker -Student -Retired

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?

-Republican

-Democrat

-Independent

-Something else

[if Republican] Would you call yourself a strong Republican or a not very strong Republican? -Strong Republican -Not very strong Republican

[if Democrat] Would you call yourself a strong Democrat or a not very strong Democrat? -Strong Democrat -Not very strong Democrat

[if neither] Do you think of yourself as closer to the Republican Party or to the Democratic Party? -Closer to the Republican Party -Closer to the Democratic Party -Neither

When it comes to politics, would you describe yourself as liberal, conservative, or neither liberal nor conservative?

-Very conservative -Somewhat conservative -Slightly conservative -Moderate; middle of the road -Slightly liberal -Somewhat liberal -Very liberal

What is your annual household income? -Under \$20,000 -\$20,000-\$35,000 -\$35,000-\$50,000 -\$50,000-\$75,000 -\$75,000-\$100,000 -\$100,000 or more

Next are some questions to help us see how much information gets out to people. Please answer these questions on your own without asking anyone or looking up the answers. Many people don't know the answers to these questions, but we'd be grateful if you would please answer every question even if you're not sure what the right answer is.

For how many years is a United States Senator elected - that is, how many years are there in one full term of office for a U.S. Senator?

-None of these -Two years -Four years -Six years -Eight years

How many times can an individual be elected President of the United States under current laws? -Any number of terms -Once -Twice -Three times

Who is the Prime Minister of the United Kingdom? -Richard Branson -Tony Hayward -Nick Clegg -David Cameron [page break]

It is essential for the validity of this study that we know whether participants looked up any information online during the study. Did you make an effort to look up information during the study? Please be honest; you will not be penalized in any way if you did. -Yes, I looked up information -No, I did not look up information

Do you have any comments on the survey? Please let us know about any problems you had or aspects of the survey that were confusing.

[page break]

Thank you for your participation in this survey!