

National Opinions on Death Penalty Punishment for the Boston Marathon Bomber Before Versus After Sentencing

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Humans seek consistency between their internal thoughts and the outside world. Thus, when legal authorities make decisions, people are likely to accept and obey these decisions to remain consistent with the societies in which they live. Few studies have explored these biases in an applied context. We examined the relationship between the sentencing of Dzhokhar Tsarnaev (the Boston Marathon bomber) and Americans' opinions about his punishment in a natural quasi-experiment. We expected that Tsarnaev's sentencing would be associated with increased support for his death penalty sentence, in a manner consistent with the legitimization literature. A survey of a representative U.S. national sample ($N = 3,341$; 78.13% total participation rate) was conducted between April 29 and June 26, 2015. We assessed views about Tsarnaev's sentencing (i.e., whether he should receive the death penalty), political party, demographics, and psychological indicators; 81.77% of our sample completed the survey prior to Tsarnaev's sentencing and 18.23% completed the survey afterward. Multiple logistic regression analyses indicated that those who completed the survey after Tsarnaev was sentenced to death were more likely to support a death penalty sentence than were those who took the survey prior to the sentencing (odds ratio = 1.48, $p = .007$; 95% confidence [1.11, 1.96]). These results remained significant after adjusting for significant covariates, including male gender; White race; Protestant-Christian religious affiliation; Boston, Massachusetts residency; beliefs in a just world; and Republican political party identification. Results of this quasi-experiment suggest that people adjust their opinions to be consistent with the fait accompli, particularly once the outcome is widely known.

Keywords: death penalty, capital punishment, legitimization, system justification, accuracy motivation

On April 15, 2013, two pressure-cooker bombs were detonated near the finish line of the annual Boston Marathon, killing three people and seriously injuring an estimated 264 others. Chechen brothers Dzhokhar and Tamerlan Tsarnaev were identified as the

perpetrators of this act of terrorism, the first on U.S. soil since September 11, 2001. Tamerlan was killed during the efforts to capture the brothers, but Dzhokhar was taken into custody after 4 days of an unprecedented manhunt and lockdown of the Boston, Massachusetts metropolitan area. He was indicted on 30 terrorism-related charges, and found guilty of all charges on April 8, 2015. On May 15, 2015, it was announced that he would be sentenced to death by lethal injection.¹ The announcement of Tsarnaev's sentencing occurred during an ongoing study of responses to the Boston Marathon bombings, amid data collection targeted around the 2-year anniversary of the attacks. This presented a unique opportunity to assess responses to the sentencing in a natural quasi-experiment and examine whether the announcement of the sentence had an impact on public opinions about his sentencing.

Prior research in applied social psychology suggests a probable increase in support for a legal decision following its announcement. People often defer to and obey the decisions that authorities make, particularly when they view those authorities as legitimate (cf. Tyler, 1997, 2006). This legitimization effect is often true regardless of prior opinions about those decisions. Thus, individuals will rationalize sociopolitical realities (e.g., the implementation of a plastic bag ban) once those realities become current, reporting more positive attitudes toward those realities in the aftermath (Laurin, 2018). For example, following the U.S. Su-

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¹ On July 31, 2020, the death sentence for Dzhokhar Tsarnaev was overturned by the U.S. Court of Appeals for the First Circuit.

preme Court's (1954) decision regarding the constitutionality of racial segregation in schools, African American students became *less* likely to hold favorable opinions toward maintaining private all-Black colleges (Kelman, 1958, 2001). This phenomenon has also been demonstrated in studies of affirmative action and phone-rate regulation, such that U.S. Supreme Court decisions are followed by increases in policy agreement and behavior due to the legitimacy-conferring effect of the Court's endorsement (Clawson, Kegler, & Waltenburg, 2001). However, evidence for a legitimacy-conferring effect of court decisions has been mixed (Baas & Thomas, 1984; Marshall, 1989), with some work suggesting that the endorsement of the court is not persuasive enough to sway public opinions around controversial policies (e.g., opinions about gay marriage; Tankard & Paluck, 2017). Additionally, this has not been replicated in the context of lower court decisions or criminal sentencing procedures, such as Tsarnaev's sentencing, which may carry less prestige than Supreme Court proceedings and may thus be less likely to influence public opinions.

Although the existence of a legitimacy-conferring effect has been documented in prior research, the explanatory mechanisms are still unclear. One possible mechanism may be viewed in the context of system justification theory (Jost & Banaji, 1994), which posits that humans have a fundamental tendency to support the status quo and consequently are more likely to approve of the broader social systems that govern society, such as decisions made by the judicial branch. While this concept has not been explicitly studied in the legal setting, it has previously been applied to studies of other sociopolitical outcomes over which individuals can exert little individual control and are unchangeable in nature, such as policy decisions and election results. For example, individuals will increase their perceived favorability of a proposed tuition increase to the extent that it is likely to occur (Kay, Jimenez, & Jost, 2002). Furthermore, individuals who are higher in system justification motivation are most likely to engage in status quo enhancement (Feygina, Jost, & Goldsmith, 2010). System justification theory would predict that, once Tsarnaev's sentence has been handed down, individuals would be more likely to support that outcome to the extent that they are motivated to uphold the status quo, regardless of their beliefs about the death penalty.

However, it is equally possible that individuals are simply motivated to have accurate views of the world—that is, they want their views and opinions to reflect the world as it is, not necessarily to uphold the status quo. In this view, the opinion of the court serves as a piece of information for individuals in the population who are trying to decide which sentence is most correct (Deutsch & Gerard, 1955; Sherif, 1936). After the sentence has been handed down, people may take the very fact of the capital sentence as a piece of information they may use to decide their own opinion (i.e., "If a judge and jury, who know more than I do about this case, think this is the correct sentence, then it must be so"). Because individuals typically expect juries to produce very low error rates for false convictions and acquittals (Arkes & Mellers, 2002), it is likely that they also expect a similar level of accuracy in sentencing decisions from the courts. If this is the case, then there should be an increase in support for a death penalty sentence for Tsarnaev after its announcement, regardless of individuals' beliefs about the status quo.

While death penalty attitudes are controversial, support for the death penalty is fairly reliably predicted by a number of demo-

graphic and social factors. These include male gender, White race, older age, and having less education (Mandery, 2012). Additionally, Republican political party affiliation has also been a robust predictor of death penalty support for the past several decades (Toch & Maguire, 2014). This appears to be due, in part, to associations between political conservatism and authoritarian beliefs (McCann, 2008; Moran & Comfort, 1986). Some research also suggests that Christian religious affiliation is associated with increased support for the death penalty (Grasmick, Cochran, Bur-sik, & Kimpel, 1993; Miller & Hayward, 2008; Rade, Holland, Gregory, & Desmarais, 2017; Wozniak & Lewis, 2010), despite Christian beliefs in the sanctity of life and the explicit condemnation of the death penalty by multiple Christian denominations. Nonetheless, this association may be driven by greater levels of punitiveness (Grasmick et al., 1993) and harsher images of God (Rade et al., 2017) among certain Protestant denominations. Yet though these social identities strongly predict opinions about the death penalty, people may still support the *fait accompli*, even when the outcome is contrary to their personal beliefs.

The present study sought to test the presence of the legitimacy-conferring effect of a court decision using data collected following the conviction and during the sentencing of Dzhokhar Tsarnaev. This scenario was ideal for testing this effect because Tsarnaev's guilt was already established by the time we began assessments of opinions surrounding the sentencing options, but the sentence had not yet been handed down. We hypothesized that above and beyond the unmalleable demographic and social predictors of death penalty support, public support for a death penalty sentence in the Tsarnaev case would increase following the announcement that he had been sentenced to death.

Method

Design and Participants

Participants for the present study were recruited as part of an ongoing longitudinal study, started in April 2013, of Americans' reactions to the Boston Marathon bombings, which was conducted among a representative national sample of U.S. residents with oversampling in the Boston and New York, New York, metropolitan areas ($N = 4,675$, see Holman, Garfin, & Silver, 2014). Participants for this study were drawn from the GfK KnowledgePanel, which uses address-based sampling methods to randomly sample and recruit individuals within U.S. households. Panelists complete web-based surveys in exchange for compensation (\$5–\$20 and free Internet if their household is not web-enabled). Procedures for this study were approved by the University of California, Irvine Institutional Review Board.

All panelists who had previously participated in the initial wave of data collection and were still available ($N = 4,276$) were invited to participate in the present study, which was the fifth wave of data collected on this sample. On April 8, 2015, Tsarnaev was found guilty of the bombing and was awaiting sentencing. Starting 3 weeks later, between April 29 and June 26, participants completed a survey coinciding around the second anniversary of the attacks. A total of 3,341 participants (78.13% total participation rate) completed the survey during the fielding period; 3,055 panelists completed the survey online and 286 completed it via paper-and-pencil format. By the time Tsarnaev's sentence was announced on

May 15, a total of 2,732 individuals (81.77% of the final sample; weighted 79.60%) had completed the survey; a further 609 (18.23%; weighted 20.40%) completed it after the sentencing.

The final weighted sample ranged in age from 18 to 94 years old (weighted $M = 48.10$, $SD = 16.82$) and was 52.67% female. Of the weighted sample, 67.56% self-identified as White (non-Hispanic), 13.34% as Hispanic, 10.79% as Black (non-Hispanic), and 8.31% as “other,” which included Asian. Median household income was between \$60,000 and \$74,999 annually. Just over 5% of the weighted sample attained less than a high school degree, 33.08% held a high school degree, 29.32% attended some college, and 31.96% held a college or advanced degree. Approximately 18% of the weighted sample lived in the Boston metropolitan area. We used the full sample available to us with no exclusions. Measures relevant to our analysis will be described.

Measures

As part of entry into the GfK KnowledgePanel and prior to the start of the study, participants provided information on age, gender, race/ethnicity, education, income, and marital status. They also provided information on their religious and political party affiliation. Individuals could check a box that best described their religion; Baptist—any denomination, Protestant (e.g., Methodist, Lutheran), Mormon, Pentecostal, and other Christian categories were combined to represent Protestant-Christian religious affiliation. Political party was measured on a Likert scale from 1 (*Strong Democrat*) to 7 (*Strong Republican*).

At the 2-year anniversary survey, death penalty opinions were assessed using the following question: “As you may be aware, Dzhokhar Tsarnaev has been convicted of the Boston Marathon bombing. Many people have an opinion about what punishment is appropriate. Please indicate your opinion below.” Participants could select one of three options: the death penalty, life imprisonment, or no opinion.

The 2-year anniversary survey also included a measure of just world beliefs using a modified version of the World Assumptions Scale (WAS; Janoff-Bulman, 1989). Six items assessed participants’ beliefs that they live in a just world (e.g., “Generally, people deserve what they get in this world”) measured on a 1–5 Likert scale with endpoints “strongly disagree” to “strongly agree”. Because items from the WAS are relatively similar to those found in some general system justification scales (e.g., Kay & Jost, 2003), it could serve as a proxy for assessing system justification beliefs

(see Table 1 for a comparison of items from these scales). The mean of items from this subscale was calculated to create a composite measure of just world beliefs, which displayed good internal consistency in this sample ($\alpha = .81$).

Statistical Analysis

All analyses were conducted in Stata 14.2 (StataCorp, 2015). For all analyses, sampling weights were used to account for probability of selection into the KnowledgePanel and differences in the demographic makeup of our sample compared to U.S. Census benchmarks. The use of these weights ensures that our sample is representative of the populations from which it was drawn (i.e., Boston, New York, remainder of the United States), and thus facilitates population inferences. Analyses were conducted with and without sampling weights; the pattern of results were the same and weighted results are reported.

First, chi-square tests were performed to test for an increase in the proportion of participants who endorsed a death penalty sentence following its announcement, before accounting for covariates. Next, multiple logistic regression models were constructed using a hierarchical variable entry strategy to examine the predictors of supporting a death penalty sentence for Tsarnaev. First, demographics and social predictors (just world beliefs, political party affiliation) were entered, followed by whether the survey was completed before or after the sentencing. Participants with incomplete data were removed from analyses using listwise deletion. Last, to test a possible mechanism of the hypothesized effect, an interaction term for just world beliefs (a proxy for system justification beliefs) and time of survey completion was tested.

Results

Across all respondents, almost 50% favored a death penalty sentence for Tsarnaev (weighted 48.80%), about one third favored life imprisonment (weighted 33.06%), and 18.84% (weighted) offered no opinion. While we did not collect data from our sample regarding their opinions about the death penalty in general, these proportions are very similar to those reported by the Pew Research Center from a national poll taken in April 2015, around the same time as our assessment (Pew Research Center, 2015; see Figure 1).

Of the sample who completed the survey prior to the announcement of the sentencing, 47.78% supported a death penalty sentence, compared to 33.96% who supported life imprisonment and

Table 1

Comparison of Just World Beliefs Items From World Assumptions Scale (Janoff-Bulman, 1989) and Items From the System Justification Scale (Kay & Jost, 2003)

Just world beliefs scale	System justification scale
1. Generally, people deserve what they get in this world.	1. In general, you find society to be fair.
2. If people took preventive actions, most misfortune could be avoided.	2. In general, the American political system operates as it should.
3. By and large, good people get what they deserve in this world.	3. American society needs to be radically restructured. ^a
4. Through our actions, we can prevent bad things from happening to us.	4. The United States is the best country in the world to live in.
5. People will experience good fortune if they themselves are good.	5. Most policies serve the greater good.
6. When bad things happen, it is typically because people have not taken the necessary actions to protect themselves.	6. Everyone has a fair shot at wealth and happiness.
	7. Our society is getting worse every year. ^a
	8. Society is set up so that people usually get what they deserve.

^a Reverse-coded.

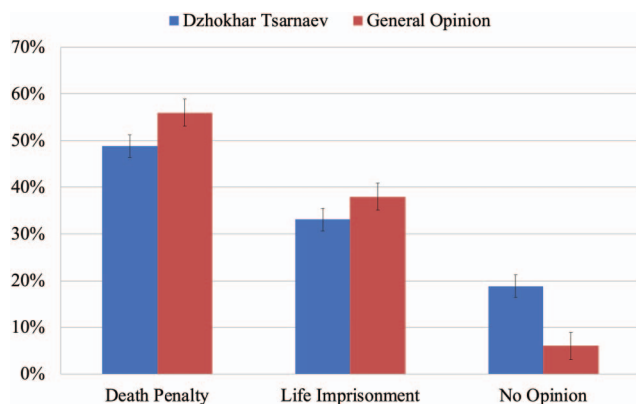


Figure 1. Opinions about death penalty punishment for Dzhokhar Tsarnaev in the total sample compared to death penalty opinions in the general population. This figure compares the proportion of individuals in the present sample who endorsed support for the death penalty, life imprisonment, or no opinion specific to the case of Dzhokhar Tsarnaev with individuals from a [Pew Research Center \(2015\)](#) survey that endorsed support for the death penalty, life imprisonment, or no opinion regarding capital punishment in general. Proportions are weighted to account for sampling design and poststratification to U.S. Census benchmarks. See the online article for the color version of this figure.

18.26% who offered no opinion. There was also a significant increase in the proportion of individuals who supported a death penalty sentence for Tsarnaev following the announcement of his sentencing. Specifically, following the announcement that he had been sentenced to death, the proportion of individuals favoring a death penalty sentence increased to 52.84% of the sample, $z = -2.34$, $p = .019$, compared to 29.49% who supported life imprisonment and 17.67% who offered no opinion, $\chi^2(2) = 10.06$, $p = .007$ (unweighted); 6.08, $p = .048$ (weighted; see [Figure 2](#)).² For subsequent analyses, individuals who indicated they had “no opinion” were grouped with those who supported a sentence of life imprisonment, as there was no significant change in either of these groups following the announcement of the sentence.³

Table 2 presents the demographic composition of the subsamples that completed the survey before and after Tsarnaev’s sentencing. When compared with individuals who completed the survey presentencing, those who completed the survey postsentencing were more likely to live outside Boston and be younger, female, and non-White.

Table 3 presents the results of the multiple logistic regression analyses predicting the likelihood of individuals endorsing an opinion that Tsarnaev should receive the death penalty. In Model 1, male gender, White race, Protestant-Christian religion, and Republican political party affiliation were all associated with an increased likelihood of support for the death penalty. Increased age, having a college education, and residing in Boston were associated with decreased likelihood of death penalty support. In Model 2, when adjusting for demographic (age, gender, education, religious affiliation, White race, Boston residency) and social predictors of death penalty support (belief in a just world, political party affiliation), individuals who completed the survey following the announcement of Tsarnaev’s sentencing were more likely to support the death penalty as his punishment when compared to

individuals who completed the survey before the sentence had been announced. A specification test for omitted variable bias was not significant ($b = .07$, $p = .402$, 95% confidence $[-.10, .25]$), indicating that it is unlikely that there were missing predictor variables from our model.

To address the possibility that our analytic strategy may have been insufficient to account for the demographic and social differences between our pre- and postsentencing samples, we also tested our hypotheses using inverse probability weights with regression adjustment. This analysis accounts for differential response rates in the two samples, given that some predictors of death penalty endorsement also are associated with time of survey completion. When applying inverse probability weights to our sample, we found a similar pattern of results, such that those individuals who completed the survey after the sentencing announcement were more likely to support a death penalty sentence than were those who completed it prior to the announcement (average treatment effect = 0.07; $p = .02$; 95% confidence $[0.01, 0.13]$).

Next, we tested for the possibility of a system justification motive for the increase in death penalty endorsement. An interaction term representing the interaction between just world beliefs and timing of survey completion was added to our model. This interaction term was not significant when included in the final model (odds ratio = 0.91, $p = .654$, 95% confidence $[0.61, 1.36]$), suggesting that the relationship between timing of survey completion and death penalty endorsement did not differ across levels of just world beliefs.

Discussion

The announcement that the Boston Marathon bomber Dzhokhar Tsarnaev had been sentenced to death was associated with greater public support for a death penalty sentence, even when controlling for common demographic and social predictors of death penalty support. This suggests that people are motivated to hold opinions that are accurate and consistent with the world around them, once the outcome is known (i.e., *fait accompli*). These results also provide quasi-experimental support for the existence of a legitimacy effect in public opinions about criminal proceedings: When a position is established by an authority, in this case a judge and jury, people appear to align their opinions to be consistent with that position. In contrast, the results are not consistent with the system justification hypothesis—individuals who were higher in system justification beliefs, as measured through the WAS, were not more likely to support a death penalty sentence after it was handed down.

Though the quasi-experimental design of our study did not allow for the random assignment of participants to conditions, we can be reasonably certain that differences in death penalty opinions did not stem from fundamental differences between early and late survey takers. In fact, people from outside Boston, young people, females, and non-White individuals were all more likely to have

² All percentages reported here are weighted to account for sampling design and poststratification to U.S. Census benchmarks.

³ Logistic regression models were also tested excluding those individuals who expressed “no opinion” on Tsarnaev’s sentence using listwise deletion; all patterns of analyses remained the same.

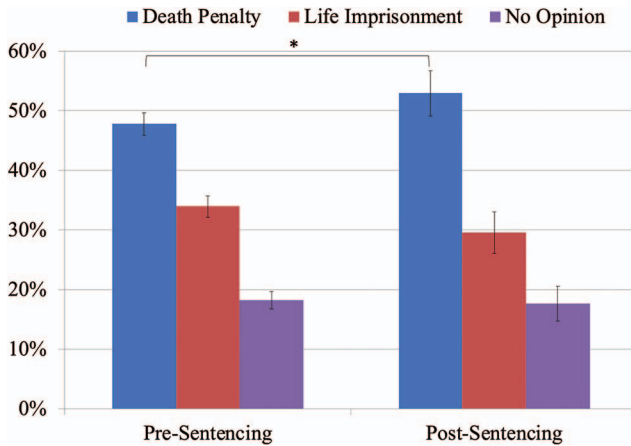


Figure 2. Opinions about the appropriate punishment for Dzhokhar Tsarnaev by time of survey completion. Proportions are weighted to account for sampling design and poststratification to U.S. Census benchmarks. Weighted presentencing $n = 2,601$; weighted postsentencing $n = 658$. * $p < .05$. See the online article for the color version of this figure.

taken the survey after the announcement of the sentence. Because young people, females, and non-White individuals are all statistically less likely to support a death penalty sentence (Mandery, 2012), this suggests that postsentencing increases in death penalty support are unlikely to be driven by demographic differences between the two samples. In fact, given this demographic profile, it would be expected that those who answered the survey postsentencing would endorse less support for the death penalty, rather than more. Indeed, postsentencing support for the death penalty was robust even when controlling for these demographic factors. Moreover, robustness checks suggested that there were no additional predictors of death penalty support that were missing from our model.

To the extent that our natural quasi-experiment was able to test for a moderating effect of system justification beliefs, this hypothesis was not supported. Although our study did not provide the data to test this hypothesis directly, our survey did include items from the WAS assessing the belief in a just world, which could

serve as a proxy measure for assessing system justification beliefs given that the items are similar to those from system justification scales. As predicted, belief in a just world was a significant predictor of death penalty support; however, it did not moderate the association between timing of survey completion and death penalty endorsement, indicating that those higher in system justification beliefs were no more or less likely to endorse a death penalty sentence after it was handed down. It is possible that a more direct measure of system justification beliefs (e.g., Kay & Jost, 2003) would have been a more precise test of this hypothesis, but the current results do not provide support for this hypothesis as an explanatory factor.

The results from the present study are more consistent with an accuracy motivation hypothesis, as individuals were equally likely to endorse a death penalty sentence following its announcement regardless of their system justification beliefs. As such, it is possible that individuals used the fact of Tsarnaev's sentencing as an indicator of whether the death penalty was most appropriate in this case. This event was widely reported on in the media; a search using Media Cloud revealed almost 1,500 news stories about Tsarnaev's trial from its start through the end of our data collection period. Also, according to Google Trends, Tsarnaev, the bombings, and the trial were among the top trending topics over the days following the announcement, rendering it unlikely that many participants had missed this information in the news. However, given that the media surges in coverage around the time of the sentencing announcement likely included other information that may have influenced participants' judgments (e.g., reminders about lives lost during the bombing or new details about the case), this prediction is not falsifiable in our sample; more data should be collected to test for an accuracy motive in individuals' attitudes.

Alternative Theoretical Explanations

There are other plausible psychological theories that may explain this alignment toward the fait accompli that should be explored in future research. Cognitive dissonance theory (Festinger, 1957), derived from Festinger's (1954) theory of social comparison, suggests that people use others as a proxy for objective truth. Festinger (1957) maintained that, because it is important to have a

Table 2
Comparison of Sample Characteristics by Time of Survey Completion

Variable	<i>M</i> , presentencing	<i>M</i> , postsentencing	<i>M</i> , comparison
Age	48.93	44.86	$t(3339) = -4.03^{***}$
Gender			
Male	49.49%	38.57%	$z = 5.10^{***}$
Race/Ethnicity			
White	69.80%	59.90%	$z = 4.97^{***}$
Religion			
Protestant	44.83%	45.53%	$z = -0.35$
College education			
With degree	32.28%	30.75%	$z = 0.74$
Boston resident	19.37%	15.36%	$z = 2.38^*$
Just world views	3.05	3.03	$t(3316) = -0.44$
Political party identification	3.70	3.51	$t(3281) = -1.46$

Note. Means and proportions based on weighted estimates to account for sampling design and poststratification to U.S. Census benchmarks.

* $p < .05$. *** $p < .001$.

Table 3
Predictors of Support for the Death Penalty Over Life Imprisonment for the Boston Marathon Bomber (N = 3,161)

Variable	Odds ratio [95% confidence interval]	
	Model 1	Model 2
Age		
30–44	1.42 [0.98, 2.06]	1.43 [0.98, 2.07]
45–59	1.31 [0.93, 1.84]	1.34 [0.95, 1.89]
60+	1.07 [0.76, 1.50]	1.12 [0.79, 1.57]
Male gender	1.65 [1.33, 2.04]***	1.69 [1.37, 2.10]***
White race	1.79 [1.37, 2.33]***	1.82 [1.40, 2.38]***
Protestant-Christian religion	1.29 [1.04, 1.59]*	1.29 [1.04, 1.60]*
College education	0.73 [0.58, 0.91]**	0.73 [0.59, 0.91]**
Boston resident	0.75 [0.56, 1.00]	0.76 [0.57, 1.01]
Just world views	1.32 [1.13, 1.54]***	1.32 [1.13, 1.54]**
Republican political ideology	1.27 [1.21, 1.34]***	1.28 [1.21, 1.35]***
Postsentencing survey completion	—	1.48 [1.11, 1.96]**
Constant	0.08 [0.04, 0.14]***	0.07 [0.04, 0.13]***
Deviance (–2LL)	3,939.26	3,923.39
Wald $\chi^2(df)$	182.55 (10)***	184.46 (11)***

Note. LL = log likelihood. Reference group for age is 18–29. Table reports odds ratios representing the odds of supporting the death penalty over life imprisonment/having no opinion as the most appropriate punishment for Dzhokhar Tsarnaev. Analyses are weighted to account for sampling design and post-stratification to U.S. Census benchmarks.

* $p < .05$. ** $p < .01$. *** $p < .001$.

correct understanding of the world around us, holding opinions that conflict with those of others results in a state of psychological discomfort and a drive to resolve this discrepancy. The internal pressure to maintain cognitions that are consonant with those of others can lead to a shift in opinions to align oneself more closely with the majority (Matz & Wood, 2005). As such, a cognitive dissonance framework predicts that it would be psychologically uncomfortable to remain in disagreement with the stated opinions of society, and so individuals might be driven toward support for a death penalty sentence following Tsarnaev's sentencing (Festinger, 1957). Although our design did not provide the data to test this hypothesis directly—which would have necessitated repeated assessment of death penalty support—individuals were likely driven toward an opinion that was consistent with Tsarnaev's sentence following the announcement to the extent that disagreement with the sentence was psychologically uncomfortable.

Additionally, the bandwagon effect, derived from economics and political science, also suggests that people tend to rally around majority opinions (Marsh, 1985; Nadeau, Cloutier, & Guay, 1993; Obermaier, Koch, & Baden, 2017). Individuals draw inferences from the behavior of others to decide how they should behave or think, leading to information cascades as more and more people adopt similar thoughts or behaviors (Lohmann, 1994). When provided with information about public opinions, individuals tend to shift their opinion toward the majority. For example, when told that most people in the country favor legalized abortion, individuals are more likely to support legalized abortion (Nadeau et al., 1993). However, while the jury was unanimous in their decision to sentence Tsarnaev to death, it is unclear whether the announcement of this sentence may have communicated to the public a consensus around the majority opinion. This question necessitates future study to determine how public opinions are shaped by current events.

Limitations and Implications

Our quasi-experimental design serendipitously enabled us to examine differences in death penalty opinions both before and after the announcement of the death penalty sentence for the Boston Marathon bomber in a representative sample of U.S. residents. Although these results are consistent with the legitimization hypothesis, our study was not originally designed with the intent to test and directly contrast the theoretical underpinnings of this finding, such as an accuracy bias, system justification theory, or some alternative explanation. Moreover, although we cannot be certain that respondents who completed the survey postdeath penalty announcement were aware of the outcome, the likelihood of finding a difference between pre- and postsentencing opinions would be even further reduced had they been unaware, making ours a more conservative test of our hypotheses. In addition, because we were unable to randomly assign participants to conditions in which they completed the survey before or after the sentencing, causal inferences should not be drawn from our data. Our inability to randomly assign participants to a pre- or postannouncement condition also resulted in an imbalanced design, as the majority of survey respondents typically respond in the early days of a data collection period. The same was true in our survey, which saw almost 80% of responses completed within the first two weeks of data collection. However, because predictors of late responses also predict a reduced likelihood of death penalty support (see earlier), we can be reasonably certain that the differences between early and late survey-takers are not driving the effects in the present study. Furthermore, we were able to statistically control for these differences in our analyses.

Nonetheless, these results may have important implications for the criminal justice system. Jury decisions may hold a greater sway over public opinion than has previously been considered; this

could result in shifts in public opinions regarding controversial topics such as capital punishment, as such high-profile cases are often covered in the news media. While the Tsarnaev case was especially high-profile, we found no evidence that our findings could be accounted for by the unique media environment surrounding this particular trial and sentencing. However, future research that explores this phenomenon in the context of other cases could shed some light on the psychological underpinnings of this effect. Our results also highlight that this type of socially driven opinion change may be demonstrated in a natural quasi-experiment outside of laboratory. Research on this topic is typically conducted in laboratory settings using small undergraduate samples, increasing internal validity at the expense of ecological validity (Sears, 1986). Our results highlight the phenomenon of socially driven opinion change in an applied setting, enabling us to explore this process as it occurs in the real world.

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