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Pandemic-Induced Mortality Salience and Jury Decision-Making

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### **Abstract**

Terror management theory (TMT) suggests that people adhere more strongly to cultural worldviews to assuage their anxiety and bolster their self-esteem when faced with reminders of their own mortality (mortality salience). These cultural worldviews may include hostility towards outgroups, such as criminals, social transgressors, and racial minority groups. This study investigated whether reminders of the COVID-19 pandemic induced mortality salience (MS) and whether these reminders influenced the severity of punitive judgments suggested for hypothetical offenders. It also investigated whether mortality salience influenced people to suggest harsher punitive sentences for offenders belonging to racial minority groups. After reading a COVID-19 related mortality salience or control passage, participants ( $N = 210$ ) suggested jail time and bail amount for two hypothetical criminals, one Caucasian and one African American via an online survey. The study found that people experiencing mortality salience were less punitive towards criminals than those not experiencing mortality salience, and they prescribed relatively equal sentences for both the African-American and Caucasian offenders. Participants not experiencing mortality salience prescribed harsher sentences for both criminals and were more punitive towards the Caucasian offender when prescribing bail amounts. These findings ran counter to the assumptions of terror management theory, suggesting that mortality salience may promote prosocial behavior rather than discriminatory ingroup adherence in jurors under specific conditions.

*Keywords:* terror management theory, mortality salience, race bias, COVID-19 pandemic, criminal offenders, outgroup bias

### Pandemic-Induced Mortality Salience and Jury Decision-Making

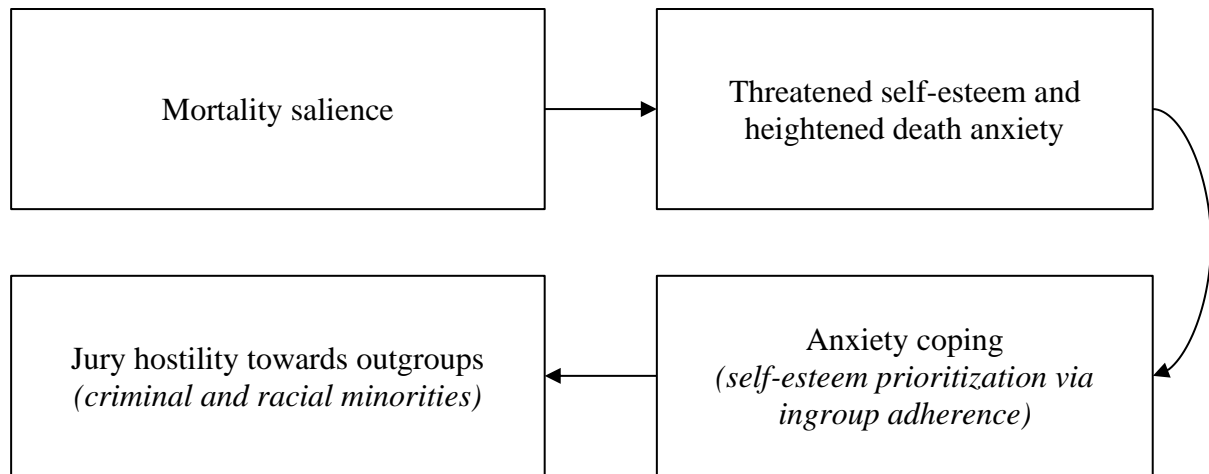
Frequent and salient reminders of death come with a host of consequences, including the potential for death-related anxiety. Under the duress of such anxiety, people may adhere more readily to their specific worldviews to soothe their discomfort, in a process known as mortality salience (MS) (e.g., Burke et al., 2010; Greenberg et al., 1986). Mortality salience research, arising from terror management theory, purports that adherence to a specific worldview or cultural outlook helps assuage the anxieties arising from an awareness of one's own mortality. More generally, terror management theory (TMT) suggests that adherence to a worldview protects from mortality anxiety, in part by bolstering individual self-esteem (e.g., Burke et al., 2010; Greenberg et al., 1986). Decades of research have demonstrated an MS effect to varying degrees, moderated by factors such as self-esteem level, gender, and education (e.g., Burke et al., 2010). Anything perceived to be relevant to one's self-esteem is subject to being affected by mortality salience, including political affiliation (e.g., Cohen et al., 2017), religious beliefs (e.g., Greenberg et al., 1990), and even risky driving behaviors (Ben-Ari et al., 1999).

Mortality salience can arise from personal death reminders, such as the death of a relative, but it can also arise from phenomena occurring in wider society, such as a high-profile terrorist event (e.g., Cohen et al., 2017; Landau et al., 2004). Both types of death reminders can have profound effects on decision-making behavior (e.g., Cohen et al., 2017; Burke et al., 2010; Landau et al., 2004; Greenberg et al., 1986). Thus, it is imperative to examine how death reminders and associated mortality salience impact the decisions of people witnessing such large-scale social phenomena.

One display of society's decision-making power is jury duty, which serves an integral societal function and ethically requires adequate decision-making and the elimination of as much

bias as possible. The criminal justice system is built on the assumption that the courtroom, including the jury panel, should strive to be as fair and unaffected by extraneous events as possible. It is critical to examine how death reminders from societal-level events may impact individual decision-making behavior in this population. It has been speculated that the COVID-19 pandemic sweeping across the globe and the availability of pandemic-related death reminders may be inducing mortality salience in the United States (Menziez & Menziez, 2020). In light of this speculation, it is possible that COVID-19 death reminders may impact jurors' decision-making in the courtroom. I intend to investigate whether pandemic-related death reminders induce individual mortality salience and whether these reminders affect the severity of punitive judgments suggested by American adults. I will also examine whether mortality salience worsens racial biases in Americans.

I propose two complementary hypotheses. First, exposure to pandemic-related information increases mortality salience in the American public, elevating their likelihood to suggest harsher sentencing for a charged offender, should they be asked to do so on a jury panel. Second, the race of the offender in question may elicit biases that are exacerbated by the presence of increased mortality salience, resulting in harsher punitive judgements given to offenders in racial minority groups. A breakdown of the mechanisms connecting mortality salience to harsher jury sentencing of criminals and racial minorities can be seen in Figure 1.



*Figure 1.* Mortality salience pathway, demonstrating the connection between mortality salience and jury hostility towards criminal and racial minority outgroups. Jury hostility refers to increased bail amounts and jail time prescribed by jurors experiencing mortality salience.

Mortality salience impacts behavior and decision-making by encouraging individuals to adhere more strongly to specific ingroups as a means of bolstering their self-esteem and decreasing mortality anxiety (e.g., Burke et al., 2010; Pyszczynski et al., 2006, Greenberg et al., 1990), which comes at the cost of greater hostility towards outgroups (e.g., Kugler & Cooper, 2010; Pyszczynski et al., 2006). When confronted with their own deaths, people often become more hostile towards outgroups, but not those they perceive similar to themselves and who reside within their cultural ingroups (e.g., Pyszczynski et al., 2006). This is because mortality salience negatively impacts self-esteem (e.g., Burke et al., 2010; Pyszczynski et al., 2006, Greenberg et al., 1990), and those experiencing low-self esteem often bolster it by adhering more strongly to cultural ingroups while derogating outgroups (e.g., Petersen & Blank, 2003). This can be seen in a variety of contexts, including conservative American students supporting deadly US military intervention in the Middle East (Pyszczynski et al., 2006), Americans supporting hostile interrogation tactics for suspected Saudi Arabian (rather than American) terrorists (Kugler & Cooper, 2010), and Christians positively appraising fellow Christians while negatively

appraising Jewish counterparts (Greenberg et al., 1990). In each instance and many others, an awareness of death inspires greater positive regard for fellow ingroup members and markedly worse regard for outgroup members.

This negative regard for outgroup members occurs as a result of heightened mortality awareness that increases anxiety and reduces self-esteem. Under terror management theory (TMT), people are motivated to behave harshly towards perceived outgroups in an effort to restore their self-esteem and assuage anxiety under such conditions. Given this, it is possible that mortality salience also may influence individuals to act with hostility towards social deviants and transgressors, among which criminals certainly fall. Criminals often deviate from broader social ingroups in salient ways, and people are able to draw biased distinctions between themselves and criminal outgroups without consciously identifying with their non-criminal ingroup (Simon, 1993). It has also been established that mortality salience can influence individuals to treat those who deviate from social norms - such as prostitutes - more harshly (e.g., Rosenblatt et al., 1989). This effect may extend to other criminals, in which case people experiencing mortality salience may support harsher sentences and punishments for offenders, so long as their social ingroup is not of the criminal variety.

It is already well-established that mortality salience plays an active and documented role in courtroom proceedings. MS can increase preference for information that supports a previous decision, compared to information that conflicts with that decision (Jonas et al., 2003). Judges and jury members experiencing MS may be more likely to support their decisions once they've settled on them, despite newly presented or contrasting information. In addition, judges have been shown to be more punitive towards prostitutes after experiencing MS (e.g., Arndt et al., 2005; Rosenblatt et al., 1989). Jurors asked to consider their own deaths similarly demonstrate

heightened punitive responses towards transgressors and a greater sense of upholding justice (e.g., Crawley & Suarez, 2016; Lieberman et al., 2014). They are also less likely to consider inadmissible evidence presented in court that may benefit the offender while experiencing MS (Cooke et al., 2004). It is apparent that personal death reminders within the courtroom may elicit MS and worsen outgroup bias against offenders.

The question now falls to whether an overarching social phenomenon like the COVID-19 pandemic can elicit MS within the courtroom and potentially affect jury hostility towards perceived criminal outgroups. Thoughts of large-scale social phenomena with strong undercurrents of death have been shown to induce mortality salience in general. For example, thinking about 9/11 increased Americans' endorsement for former President Bush, a change attributed to an increase in MS after contemplating the attacks (Landau et al., 2004). More recent terrorist events have also heightened MS in US residents, leading them to err more conservatively and support their current president more ardently (e.g., Burke et al., 2013; Cohen et al., 2017). It has even been speculated that the COVID-19 pandemic may be inducing heightened death anxiety and mortality salience, compared to the norm (Menzies & Menzies, 2020). Since the experience of MS has been shown to increase punitive judgments towards offenders in the courtroom (e.g., Crawley & Suarez, 2016; Rosenblatt et al., 1989), large-scale phenomena like the COVID-19 pandemic may increase MS just as much as being prompted to consider one's own mortality inside the courtroom. This could theoretically exacerbate the punitive and harsh judgments prescribed by jury members reminded of such large-scale phenomena.

Mortality salience increases discriminatory and hostile reactions towards outgroups, of which both criminals and racial minority groups are a part. Taken together, a person



experiencing MS may behave with hostility towards an offender, and with even greater hostility towards an offender belonging to a minority group. This may be particularly problematic if large-scale social phenomena like terrorist attacks and the COVID-19 pandemic can induce some level of mortality salience in the US population. MS does not necessarily alter people's general prejudices, but it can influence moment-to-moment discriminatory responses towards racial minorities (Fairlamb & Cinnirella, 2020). Even on a moment-to-moment basis, MS may affect racial decision-making in the courtroom to some degree. MS heightens sensitivity to social categories, ingroup cues, and leads to greater neural processing of aggression in outgroups (Henry et al., 2010). There is even some evidence that racial outgroups are judged as guilty more frequently by jurors experiencing MS (Leippe et al., 2016). If death anxiety arising from a large-scale event such as the COVID-19 pandemic can induce MS, jury decision-making in regards to sentencing minority offenders may be impacted. This is critical to consider because racial bias is already a systematic issue within the court system (e.g., Mitchell et al., 2005). Judges are more likely to charge African-American offenders with longer, more punitive sentences than Caucasian offenders (Kovera, 2019). African Americans are more likely to be denied bail and placed in containment, rather than rehabilitative programs (Kovera, 2019). They are less likely to receive pleas involving community service time or fines compared to their Caucasian counterparts (Kovera, 2019). People of color are also generally prescribed harsher and longer sentencing by the jury at trial, as well as have higher rates of wrongful convictions (Kovera, 2019). These biases, already rampant in the US justice system, could easily be exacerbated by the effects of MS.

There is considerable evidence for the existence of mortality salience, but some research has demonstrated it may not have as strong of an effect as previously believed. MS may be

harder to reproduce and may pertain only to specific circumstances (e.g., Sætrevik & Sjøstad, 2019). For example, immersive thoughts of death have demonstrated less ability to induce mortality salience than subtle reminders of death (e.g., Greenberg et al., 1994). This may indicate that the application of mortality salience to a large-scale phenomenon like the pandemic, and its associated legal implications, may not be an appropriate one. Still, given the widespread evidence in favor of an effect, there is a continuing need to further examine mortality salience to determine what circumstances it best applies to.

### **Present study**

This study will examine the complex relation between mortality salience, the COVID-19 pandemic, general attitudes towards criminals, and racial biases. Half of the participants will read a passage about a hypothetical woman who dies of COVID-19, which may remind them of their own eventual deaths and potentially increase their mortality salience. The other half of the participants will be exposed to a control passage about a woman who goes into medical debt from COVID-19, which should not induce MS. This design will examine whether death-related pandemic reminders induce MS. Participants will then be presented with a set of criminals accused of similar crimes (one African American and one Caucasian) and asked to prescribe jail time and bail amounts for each. I will evaluate whether the death-related pandemic material induces MS, and whether that affects the severity of sentences prescribed by participants. Racial differences between the criminals will also reveal if MS influences participants to judge criminals from racial outgroups more harshly.

I predict that the death-related pandemic material will invoke MS compared to the control condition. I also predict that there will be a relation between MS and the prescribed severity of sentencing. Specifically, the jail time and bail amounts will both be higher for participants

experiencing MS, compared to the control. I also predict an interaction between MS and the race of offenders, in which the presence of MS and the minority race of one of the offenders will lead to greater severity of sentencing.

## **Method**

### **Participants**

Two-hundred ten participants from Trinity University and community acquaintances of the researcher were recruited online using convenience sampling (age range: 18-89 years,  $M_{\text{age}} = 37.99$ ,  $SD_{\text{age}} = 20.01$ ; 72.4% female; 76.2% Caucasian). Five participants were eliminated because they did not answer all the questions for each criminal condition. Participants were shown a consent form and informed of their right to withdraw from the study at any time. They were also assured that their responses were anonymous and would be kept confidential. Participants were not informed about the aims of the study.

### **Design**

This study used a mixed design to test the relation between two independent variables, mortality salience and race of offender, and the dependent variable, severity of sentencing decisions. Mortality salience (MS) was manipulated between-participants using random assignment. Half the participants read a passage about a woman who died of COVID-19 and were asked to put themselves in the woman's shoes (MS condition). The other half read a passage about a woman who went into medical debt due to COVID-19 and were similarly asked to relate to her experience (control). The race of the two offenders was manipulated within-participants in a randomly presented order, in which all participants judged two case files detailing the crime type, race, gender, and age of each offender. One offender was African-American and the other Caucasian, while their crimes, age, and gender remained congruent. As a

measure of the severity of their sentencing decisions, participants prescribed jail time and bail amounts for each offender via open-ended questions. Responses for jail time were later coded into months.

Participants also answered open-ended questions about the amount of sleep they got the night before and the week leading up to the study. They ranked their current mood on a 5-point scale (1 = *extremely unpleasant*, 7 = *extremely pleasant*), their self-assessed empathy levels (e.g., “I am ‘in tune’ with other people’s moods”) on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*), and their self-esteem using the Single-Item Self-Esteem Scale (Robins et al., 2001). The items measuring self-assessed empathy levels showed low internal consistency ( $\alpha = .54$ ), indicating that results using the self-assessed empathy scale should be met with scrutiny. Participants also rated their level of general anxiety and their concerns about the pandemic (e.g., “I am concerned about the COVID-19 pandemic”) on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). The items measuring COVID-19 pandemic anxiety demonstrated high internal consistency ( $\alpha = .88$ ). These items were included with the intent to measure potentially meaningful characteristics that might relate to mortality salience and the expression of criminal and racial biases.

### **Procedure**

Participants completed an online Qualtrics survey via an email. After reading and agreeing to the consent information, half the participants were randomly assigned to the mortality salience (MS) condition, in which they read a short passage about a hypothetical woman who died of COVID-19. Before reading the passage, participants were asked to consider what they would think and feel in the woman’s position. Participants in the control read an identical passage, with the only change being that the woman lives and comes away from the

experience with severe medical debt. All participants then judged two fictional offenders, one African-American and one Caucasian, who committed similar offenses. Participants were asked to prescribe jail time and bail amounts for each participant via open-ended questions. Between their judgments for each offender, participants answered questions about their mood, amount of sleep they recently received, self-esteem, self-assessed empathy and anxiety levels, and their concerns about the COVID-19 pandemic. Participants also completed demographic information on gender, socioeconomic status, ethnicity, and age. The complete survey can be found in the appendix.

### Results

This study investigated whether people exposed to a pandemic-related mortality salience (MS) passage would be more likely to prescribe higher bail amounts and longer jail time to two hypothetical offenders, relative to participants exposed to a non-mortality salience (non-MS) passage. Bail amount and jail time prescribed were weakly positively correlated,  $r(208) = .13$ ,  $p = .070$ , indicating participants did not reliably assign higher bail amounts with longer jail times when evaluating offenders. Effects reported for these punitive judgements below were the only significant effects discovered.

Participants exposed to the non-MS passage were more likely to assign higher bail amounts (in USD) to both criminals. The results of a 2 (MS or non-MS passage) x 2 (African-American or Caucasian offender) mixed ANOVA demonstrated a significant between-subjects main effect,  $F(1, 206) = 5.00$ ,  $p = .026$ ,  $\eta_p^2 = .02$ , such that participants in the non-MS condition were more likely to prescribe larger bail amounts (in USD) to both offenders ( $M_{non-MS} = 26,895.20$ ,  $SD_{non-MS} = 80,939.50$ ;  $M_{MS} = 9,088.71$ ,  $SD_{MS} = 14,924.40$ ). This result was the inverse

of the expectation that the MS passage would increase the severity of punitive judgements suggested for both offenders.

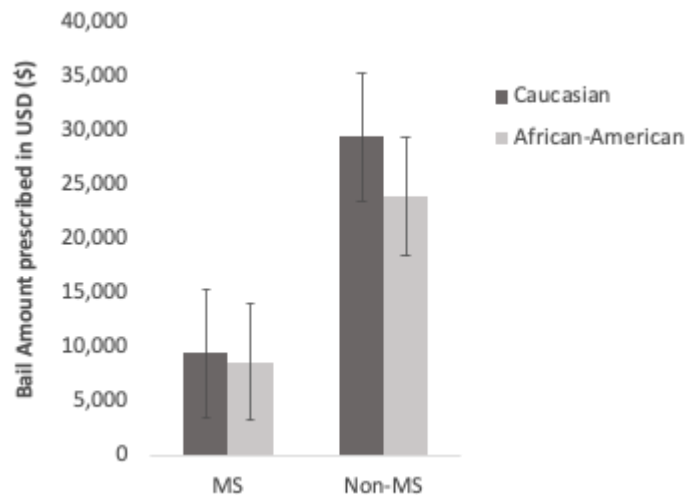
This study also assessed whether participants would prescribe higher bail amounts and longer jail time to the African American offender compared to the Caucasian offender. Regardless of MS condition, participants prescribed lower bail amounts for the African-American offender relative to the Caucasian offender overall. The results of the same 2x2 mixed ANOVA demonstrated a significant within-subjects main effect,  $F(1, 206) = 7.04, p = .009, \eta_p^2 = .03$ , such that participants were more likely to prescribe smaller bail amounts (in USD) to the African-American offender ( $M_{Caucasian} = 19,631.62, SD_{Caucasian} = 61,541.12; M_{African-American} = 16,352.31, SD_{African-American} = 55,702.11$ ). This ran counter to the expectation that participants would make harsher punitive judgements towards the African-American offender overall.

Regardless of the offender's race, participants exposed to the non-MS passage were no more likely to assign longer jail time to both offenders than participants exposed to the MS passage. The results of a 2 (MS or non-MS passage) x 2 (African-American or Caucasian offender) mixed ANOVA demonstrated no significant main effect between MS condition and jail time prescribed in months,  $F(1, 208) = .19, p = .662 (M_{non-MS} = 11.36, SD_{non-MS} = 15.23; M_{MS} = 12.22, SD_{MS} = 14.34)$ . This was inconsistent with the expectation that the MS passage would increase the severity of punitive judgements suggested for both offenders.

Participants did prescribe less time in jail for the African-American offender overall, which was inconsistent with the expectation. The results of the same 2x2 mixed ANOVA demonstrated a significant within-subjects main effect,  $F(1, 208) = 8.60, p = .004, \eta_p^2 = .04$ , such that participants were more likely to prescribe less jail time (in months) to the African-

American offender ( $M_{\text{African-American}} = 11.01$ ,  $SD_{\text{African-American}} = 13.51$ ;  $M_{\text{Caucasian}} = 12.56$ ,  $SD_{\text{Caucasian}} = 16.03$ ).

This study also examined whether the presence of mortality salience would differentially impact participants' punitive judgements for African-American versus Caucasian offenders. In a 2 (MS or non-MS passage) x 2 (African-American or Caucasian offender) mixed ANOVA, the means were suggestive of an interaction between mortality salience condition and race of offender as they relate to bail amount prescribed, but the interaction was non-significant,  $F(1, 206) = 3.60$ ,  $p = .059$ ,  $\eta_p^2 = .02$ . Participants in the non-MS condition did prescribe higher bail amounts to the Caucasian offender ( $M_{\text{Caucasian}} = 29,706.97$ ,  $SD_{\text{Caucasian}} = 84,863.03$ ) relative to the African-American offender ( $M_{\text{African-American}} = 24,083.46$ ,  $SD_{\text{African-American}} = 77,015.98$ ). In contrast, participants in the MS condition did not significantly differ in their prescribed bail amounts for either the Caucasian or African-American offender ( $p = .61$ ;  $M_{\text{African-American}} = 8,621.16$ ,  $SD_{\text{African-American}} = 13,542.90$ ;  $M_{\text{Caucasian}} = 9,556.26$ ,  $SD_{\text{Caucasian}} = 14,305.85$ ). Mean bail amounts prescribed for all conditions can be seen in Figure 2.



*Figure 2.* Mean bail amounts prescribed (in USD) for the Caucasian and African-American offender in both the mortality salience (MS) and non-mortality salience (non-MS) conditions.

Error bars represent +/- 1 standard error of the mean.

For jail time prescribed, a 2 (MS or non-MS passage) x 2 (African-American or Caucasian offender) mixed ANOVA was conducted that yielded a non-significant interaction, indicating that the race of the criminal and the jail time prescribed were not dependent on the mortality salience condition type.

This study also investigated whether a number of ancillary variables were associated with higher bail amounts and longer jail times prescribed to offenders. There were no significant relationships between the punitive judgements prescribed by participants and these variables. However, Table 1 has been included to depict several correlations that were not relevant to the primary focus of this study but may be of theoretical interest as researchers further investigate the impact of the COVID-19 pandemic. Particularly noteworthy is the small positive correlation between self-reported COVID-19 anxiety and empathy,  $r(208) = .26, p < .001$ , which is not reflected in the correlation between self-reported general anxiety and empathy,  $r(208) = .05, p = .463$ . Age and general anxiety were moderately negatively correlated  $r(208) = -.33, p < .001$ , but age and COVID-19 anxiety were not correlated,  $r(208) = .05, p = .437$ . These results may indicate potential differences in the experience of COVID-19 anxiety versus generalized anxiety.



**Table 1***Correlations for Ancillary Survey Items*

	Age	Anxiety (general)	Anxiety (COVID)	Empathy	Gender	Sleep (hours)	Mood	Self- esteem
Age	1							
Anxiety (general)	<b>-.33**</b>	1						
Anxiety (COVID)	.05	<b>.27**</b>	1					
Empathy	-.04	.05	<b>.26**</b>	1				
Gender	-.06	.12	.11	<b>.23**</b>	1			
Sleep (hours)	-.06	-.02	-.10	.09	.02	1		
Mood	.12	<b>-.19**</b>	.03	.09	.02	<b>.23**</b>	1	
Self-esteem	.14	<b>-.40**</b>	-.10	.03	-.12	.09	<b>.35**</b>	1

*Note.* \*\*. Correlation significant at the .01 level (2-tailed).

### Discussion

The results of the present study are inconsistent with the majority of the literature describing the impact of mortality salience on outgroup bias and adherence to cultural worldviews (e.g., Burke et al., 2010; Greenberg et al., 1986). Rather than exhibiting hostility towards the criminal outgroup, people experiencing mortality salience as the result of a COVID-19 death reminder recommended less punitive judgements to both criminals in this study, relative to those not experiencing mortality salience. Mortality salience was associated with lighter bail amounts prescribed to both offenders, indicating that the criminal outgroup was treated with greater favorability by those considering their own deaths. Mortality salience did not have an effect on the severity of jail time prescribed relative to non-mortality salience, indicating a potential perceptual difference between the punitive judgements of bail amount and jail time prescribed. These findings directly contradict previous studies indicating that members of the court, including both judges and jurors, behave with greater hostility towards social transgressors when reminded of their own deaths.

The expected effect of mortality salience on increased severity of punitive judgements against the racial minority outgroup was similarly not confirmed. The African-American offender received a lower bail amount and less jail time than the Caucasian offender, regardless of mortality salience induction. Individuals not experiencing mortality salience were more likely to prescribe low bail amounts to the African-American offender, while those experiencing mortality salience did not prescribe meaningfully different bail amounts to either offender. Similarly, it appeared that mortality salience had no effect on jail time prescribed for either the Caucasian or African-American offender. These findings directly contradict previous research suggesting that mortality salience worsens general discriminatory attitudes towards racial minorities and perceptions of minority offenders in the courtroom (Fairlamb & Cinnirella, 2020; Leippe et al., 2016).

These findings suggest that individuals experiencing mortality salience did not treat the racial minority offender with more hostility as a means of restoring self-esteem and assuaging death anxiety, despite that offender belonging to a traditional outgroup. In general, mortality salience did not have the effect of increasing punitive judgements towards either the criminal or the racial minority outgroup, which ran counter to the terror management assumption that individuals experiencing mortality salience will often derogate outgroups (e.g., Burke et al., 2010; Greenberg et al., 1986). In fact, when the punitive judgements differed significantly between the African-American and Caucasian offender, the Caucasian offender received harsher sentencing across the board.

This research calls into question the broad applicability of the mortality salience model, given that the mortality salience pathway established in the literature and represented in Figure 1 was not reflected in this study's findings. There are two possibilities for why this occurred within

the context of this study: (a) reading about, but not interacting with, death as a result of the COVID-19 pandemic did not induce mortality salience, or (b) the COVID-19 death reminder did increase anxiety and threaten self-esteem, but the reaction to this was to value social agreeability over outgroup derogation.

It is possible that the presentation and content in the study's COVID-19 passage were not sufficient to induce mortality salience. Participants did not have to interact with the passage in any meaningful way beyond reading it, and this brief exposure may not have been enough to render mortality salience. However, this does not align with the previous literature that indicates quick, subtle reminders of death are more effective at inducing mortality salience (e.g., Greenberg et al., 1994). Alternatively, death reminders related to the COVID-19 pandemic may not have been sufficient to instill mortality salience across participants, given the varying political and health opinions on the subject. Although this determination is beyond the scope of the study, it should be noted that the participants who read the COVID-19 death reminder differed significantly from those who did not in severity of punitive judgements. This indicates that an effect existed between jury decision-making and exposure to COVID-19 death reminders, albeit in the opposite direction of the established mortality salience literature.

Given the direction of this effect, exposure to the COVID-19 death reminder may have heightened death anxiety and worsened self-esteem, but discriminatory adherence to cultural ingroups was not the reaction used to deal with these experiences. The individuals exposed to the death reminder behaved in a more prosocial manner relative to those who were not exposed; they were less likely to prescribe harsh sentences to both criminals and more likely to prescribe equal sentences to offenders regardless of race. These prosocial choices may have been motivated by an increase in death anxiety resulting from the COVID-19 death reminder. Social agreeableness

and prosocial behavior have been observed in a small subset of the mortality salience literature, in which death anxiety motivates efforts to adhere to socially-prescribed prosocial norms (e.g., Jonas et al., 2008; Niesta et al., 2008). Rather than adherence to selective ingroups and worldviews, individuals in some situations may be more likely to subscribe to broad, positive social expectations. In the instance of this study, individuals prescribed less harsh judgements for criminals and racial minorities in a bid to increase social acceptance and prosociality. Given the focus on antisocial behavior and ingroup bias in the existing mortality salience literature, future research examining the relationship between mortality salience and prosocial behavior is critical, especially when applied to the courtroom.

This study provides a few jumping-off points for future inquiry, especially in the investigation of limitations concerning the established mortality salience model. A major limitation of the present study is that it cannot identify whether COVID-19 death reminders failed to induce mortality salience, or if mortality salience was successfully induced and simply encouraged prosociality in participants. More research is needed to explore the model, both in relation to the COVID-19 pandemic and general prosocial motivation.

A note of caution is required before making generalizations about the punitive judgement trends shown in this study's findings. The present sample was primarily female (72.4%) and white (76.2%), and therefore not representative of all potential jurors who might serve in a United States courtroom. Furthermore, the sample was distributed across several states, and given that various states recommend different sentences for vandalism and shoplifting, participants may have been using different baselines when prescribing bail and jail time amounts. Future studies may benefit from providing reference material to participants that explains what a 'typical' sentence looks like for each crime being evaluated. It is also critical to note that the

hypothetical offenders did not commit identical crimes in this study. Although they committed crimes totalling the same amount of monetary damage, and vandalism and shoplifting are considered equivalent crimes in the state of Texas (e.g., FindLaw, 2018), people may have perceptual biases that favor harsher sentencing for one crime over the other.

Given the applicability of this research to real-world judicial proceedings, future research should investigate how mortality salience can impact different forms of sentencing in the courtroom. The present study discovered significant differences in how participants prescribed bail amount versus jail time to each offender when experiencing mortality salience, suggesting that jurors may perceive the two aspects of sentencing as separate entities. Not only should future research explore how aspects of sentencing are affected by mortality salience, but researchers should continue to catalog how different types of crimes, from property damage to violent crime and harassment, are differentially impacted by reminders of one's own death. Previous studies demonstrating the relationship between mortality salience and jury hostility towards offenders have not examined criminal outgroups as they relate to vandalism and shoplifting, instead representing 'social transgressors' as prostitutes and violent offenders (e.g., Arndt et al., 2005; Crawley & Suarez, 2016; Lieberman et al., 2014). Given the findings in this study, it's reasonable to infer that different classes of criminals may be differentially perceived as members of social outgroups, and these perceptions may drive different punitive reactions in jury members when experiencing mortality salience. Along these same lines, it is also possible that jurors experiencing mortality salience may not treat criminals of different classes with the kind of potential prosociality demonstrated towards vandalism and shoplifting in the present study.

This study provides evidence that mortality salience may not always foster ingroup bias and adherence to discriminatory worldviews in the courtroom. The findings suggest that

participants experiencing mortality salience may have behaved in more prosocial ways, recommending less harsh sentences to criminals and relatively equal sentences to both African-American and Caucasian offenders. Future investigation into the underlying causes of these judgements is critical, given that death reminders in the courtroom are common occurrences. Although it's reasonable that mortality salience may increase prosociality in potential jurors, these results should not be seen as evidence that racial and criminal bias does not exist in the courtroom, or that reminders of death can minimize juror bias. Rather, this study should be viewed as a step towards understanding how mortality salience can influence socially-conscious attitudes in jurors under specific circumstances.

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## Appendix

### 1. Mortality salience passage.

*Read the passage below. Consider what you would think and feel if you were in the following position. Once you are finished, click the arrow at the bottom of the page.*

On August 12th, 2020, Victoria came home from her job exhausted. At first, she thought she was overworked and just needed some extra rest, so she went to bed early and thought nothing of it. The next day, however, she woke up to a 100°F fever, chills, and body aches. She started to wonder if she'd picked up COVID-19 at her work, so she told her friends and family she would be isolating for a while until she got better.

Over the course of the next week, her symptoms only worsened. On August 19th, while she was standing in the kitchen making a cup of coffee, her breathing became severely labored and she began to cough to no avail. Unable to get air, she collapsed on the kitchen floor and called an ambulance to take her to the hospital.

At the hospital, she tested positive for COVID-19. She was immediately isolated in the ICU and placed on oxygen. Her doctors assured her that she would be fine, given that she was healthy and had no known pre-existing conditions.

Despite the oxygen, she continued to decline and breathing became more and more difficult. After a few days of rapid deterioration, the doctors decided to intubate her. She remained on a ventilator for weeks, fighting for her life. Unfortunately, her lungs continued to deteriorate until she went into acute respiratory failure. Widespread lung damage and inflammation meant even the ventilator could not deliver the oxygen she needed to survive. Although she fought for every breath, she ultimately died on September 13th from COVID-related respiratory failure. The hospital contacted her family shortly after her death.

Due to COVID-19 restrictions, her family held a small funeral service a few weeks after her death. They buried her in a local cemetery.

### 2. Non-mortality salience passage.

*Read the passage below. Consider what you would think and feel if you were in the following position. Once you are finished, click the arrow at the bottom of the page.*

On August 12th, 2020, Victoria came home from her job exhausted. At first, she thought she was overworked and just needed some extra rest, so she went to bed early and thought nothing of it. The next day, however, she woke up to a 100°F fever, chills, and body aches. She started to wonder if she'd picked up COVID-19 at her work, so she told her friends and family she would be isolating for a while until she got better.

Over the course of the next week, her symptoms only worsened. On August 19th, while she was standing in the kitchen making a cup of coffee, her breathing became severely labored and she began to cough to no avail. Unable to get air, she collapsed on the kitchen floor and called an ambulance to take her to the hospital.

At the hospital, she tested positive for COVID-19. She was immediately isolated in the ICU and placed on oxygen. Her doctors assured her that she would be fine, given that she was healthy and had no known pre-existing conditions.

Despite the oxygen, she continued to decline and breathing became more and more difficult. After a few days of rapid deterioration, the doctors decided to intubate her. She remained on a ventilator for weeks, fighting for her life. Miraculously, after weeks of being on a ventilator, her condition began to improve. After several days, she was taken off ventilation and breathed on her own for the first time. She was discharged from the hospital on September 13th. She received her medical bill shortly after and realized she was being charged almost \$200,000. She had been treated at an out-of-network hospital and her insurance was “self-funded” through her employer, so she had to foot the entire bill.

Like most Americans, she did not have the savings to afford her unexpected medical bills, and she couldn't lean on her family for financial support. The price of saving her life meant she is now in severe medical debt.

### 3. Criminal #1: Caucasian Offender

*Instructions: You are going to suggest punishments for a hypothetical criminal. Read the following criminal profile and decide two things: 1) how much time the criminal should serve in jail and 2) what their bail amount should be set at (in \$). Enter your answers in the boxes below.*

#### BASIC INFORMATION

Name: James Davis

Age: 26 years

Gender: Male

Ethnicity: Caucasian

Employment: Construction worker

Repeat offender: Yes

#### CRIME

Crime type: Felony

Crime details: Davis vandalized a company building with damages totaling to \$2,750. Security footage of the storefront alerted store owners to call the police. Police discovered a man walking

along the highway half a mile from the company building and identified the suspect to be Davis based on security footage. Davis attempted to escape by entering the woods. He was taken into custody an hour after the incident.

- How much time should Davis serve in jail? Please give one number, not a range. Specify if your number represents months or years \_\_\_\_\_
- What should his bail amount be set at, in \$? Please give one number, not a range. \_\_\_\_\_

#### 4. Criminal #2: African-American Offender

*Instructions: You are going to suggest punishments for a hypothetical criminal. Read the following criminal profile and decide two things: 1) how much time the criminal should serve in jail and 2) what their bail amount should be set at (in \$). Enter your answers in the boxes below.*

#### BASIC INFORMATION

Name: Aaron Williams

Age: 25 years

Gender: Male

Ethnicity: African American

Employment: Gas station employee

Repeat offender: Yes

#### CRIME

Crime type: Felony

Crime details: Williams shoplifted a handbag worth \$2,800 from a high-end boutique. He set off the store security alarm and police were called. He was identified five blocks from the boutique, at which point he attempted to outrun police. He was apprehended with the handbag still in his possession 45 minutes after the incident.

- How much time should Williams serve in jail? Please give one number, not a range. Specify if your number represents months or years \_\_\_\_\_
- What should his bail amount be set at, in \$? Please give one number, not a range. \_\_\_\_\_

#### 5. Sleep

- Thinking about this past week, on average how many hours of sleep did you get each night? Please give one number, not a range. \_\_\_\_\_
- How many hours of sleep did you get last night? Please give one number, not a range. \_\_\_\_\_

6. Thinking about today specifically, answer the following statement: Today, my mood is
  - a. Very unpleasant
  - b. Moderately unpleasant
  - c. Neutral

- d. Pleasant
  - e. Very pleasant
7. Answer the following statements (1-5; 1 = strongly disagree, 5 = strongly agree):
- a. I am not interested in other people's emotions
  - b. I have high self-esteem
  - c. I am "in tune" with other people's moods
  - d. I feel anxious or scared most of the time
  - e. I am an empathetic person
8. Answer the following statements (1-5; 1 = strongly disagree, 5 = strongly agree):
- a. I am very concerned about the COVID-19 pandemic
  - b. I am concerned that COVID-19 will impact my family's health
  - c. I worry about COVID-19 impacting my own health
9. What gender do you identify as? (Male/Female/Non-binary)
10. Which of these categories best describes your total combined family income for your household for the past 12 months?
- a. < \$25,000
  - b. \$25,000 - \$49,000
  - c. \$50,000 - \$74,999
  - d. \$75,000 - \$99,999
  - e. \$100,000 - \$149,999
  - f. > \$150,000
  - g. Prefer not to say
11. Please specify your ethnicity:
- a. African American
  - b. Alaska Native/Native Hawaiian or Pacific Islander
  - c. Asian
  - d. Caucasian
  - e. Latino or Hispanic
  - f. Native American
  - g. Biracial, mixed race/ethnicity
  - h. Other/Unknown
  - i. Prefer not to say
12. Please specify your age: \_\_\_\_\_