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# Violent assault on a Chinese man: COVID-19 psychosocial resource loss diminishes right wing authoritarianism variability in social reactions

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**Abstract**

We examined whether COVID-19—driven psychological burden (i.e., loss of hope, loss of optimism, etc.) and personality characteristics (i.e., right wing authoritarianism, RWA) might predict perpetrator-directed punitive responding (i.e., support for criminal charges) to a COVID-19—related attack on a Chinese victim by a White male. This examination tested the resilience of social justice reactions among low relative to high RWA participants. Across two studies, at low psychological burden levels, low RWA participants reported greater punitive responding than high RWA participants. This RWA-punitive responding association was mediated by sensitivity to the victim's suffering (i.e., empathy) for Study One and anti-perpetrator reactions (e.g., moral outrage, hate crime attributions) for Study Two. Across both studies, egalitarian reactions among low RWA participants were shown to be transitory. The RWA association with the relevant outcome variables (i.e., suffering sensitivity, anti-perpetrator bias, punitive responding) was eliminated at high psychological burden levels.

The COVID-19 virus represents a pathogenic danger which has accounted for substantial severe illness and over 4 million deaths across the world as of July, 2021. Given the reports of the Chinese origin of the COVID-19 pandemic, it is not surprising that there have been extreme negative and violent reactions towards Asians (Cheng et al, 2020; Ellerbeck, 2020; Gover et al., 2020). This prejudicial treatment includes public verbal attacks (Yoon-Ji Kang, 2020), being coughed or intentionally spit on (Inskeep, 2020), and even physical assaults against (Yang, 2020). However, there has been minimal empirical examination of factors that might influence *societal reactions* to such violence. This issue becomes especially significant in the context of the historical evidence of pervasive disease-related (e.g., leprosy, AIDs, tuberculosis, SARS, and Ebola) outgroup-directed negative reactions across the world (Gee and Skovdal 2018; Des Jarlais et al. 2006; Kleinman and Watson 2006; Lee 2014; Mak et al. 2006). Moreover, an examination of responses to COVID-19—related anti-Asian discriminatory treatment is relevant because societal beliefs regarding the aversive nature of unwarranted and discriminatory violent actions can create a climate of social intolerance (e.g., publicly condemning the behavior as wrong, applying legal sanctions, directly telling the perpetrator that they are wrong) toward such cases of violence (Gracia & Herrero, 2007), this way delegitimizing these reactions and thus help reducing such violence.

For the current examination, across two studies, we were specifically interested in the interplay between factors related both to the context of the Covid-19 pandemic and to the psychological aversion to the outgroup. Specifically, we examined the extent that *contextual* (i.e., COVID-19—related emotional difficulties) and *prejudice-related personality* variables (i.e., right wing authoritarianism) factors might interact to predict punitive reactions towards the

perpetrator of a COVID-19—related assault of an Asian victim. We also examined the mediating role of sensitivity to the victim suffering (e.g., greater empathy) in Study One and anti-perpetrator reactions (e.g., greater moral outrage) in Study Two.

**COVID-19 Psychological Burden**

At the onset of the pandemic, a team of leading mental health scholars and practitioners warned that "psychological burden of the COVID-19 pandemic" would likely be associated with widespread catastrophic mental health outcomes (Campion et al., 2020). In full support of this contention, there is strong empirical evidence that *COVID-19 psychological burden* (i.e., emotional distress due to the COVID-19 pandemic) has become prevalent across the world (Brooks et al., 2020; Cao et al., 2020; Charles et al., 2021; Garfin et al., 2020; Lechner et al., 2020; Mazza et al., 2020; Wang et al., 2021). These findings build on previous research demonstrating that disease-driven public health pandemics tend to facilitate increases in emotional health issues. For example, the Ebola outbreak was linked to considerable emotional distress among members of the general population in affected countries (Jalloh et al., 2018; O'Leary, Jalloh, & Neria, 2018) and those who were directly affected by the affected by the virus (Cénat et al., 2020). In addition, there is extensive evidence that the 2002 SARS outbreak had deleterious impact on psychological well-being of those of those infected with the disease and frontline workers (Lee et al., 2007; Su et al., 2007). One crucial issue involves the potential deleterious "downstream" consequences of disease-driven emotional duress. The limited *direct* research in this area has demonstrated that COVID-19 psychological burden predicted greater anti-systemic attitudes (dissatisfaction with the fundamental social and political order) and

political violence (Henrikas et al., 2021). However, a number of social scientists contend that greater empirical attention should be given to the extent that all forms of maladaptive coping associated with the COVID-19 pandemic might predict greater outgroup-directed intolerance and prejudicial treatment ( Esses & Hamilton, 2021; Fuoci et al., 2021; Gee et al., 2020; Reny & Barreto, 2020; Roberto et al., 2020; Sorokowski et al., 2020)

We propose that there are two are extensions that will greatly strengthen the critically important research area focused on the problematic consequences of COVID-19 psychological burden. First, there should be an examination of whether such emotional distress will play a role in societal reactions (i.e., towards the victim and perpetrator) to the violent treatment of minority group members. Indeed, some social scholars suggest that issues associated with what motivates and rallies public support for aggression against an innocent outgroup member "cuts to the heart of the social sciences and social psychology" (see Obaidi et al. 2018, p. 3). Second, we believe that greater empirical attention should be given to whether COVID-19—driven psychological burden might interact with societal member *individual differences* (i.e., prejudice-related personality variables) to influence the likelihood of deleterious outgroup-directed reactions. In related research, escalation of emotional difficulties due to difficult life circumstances has been shown to be negatively associated with sensitivity to the suffering of others (i.e., empathic responding) in healthcare settings (Koehl-Hackert et al., 2012; West, 2012) and laboratory settings (Buruck et al., 2014). However, there was not an assessment of the role of any form of individual differences among the participants, when it is likely that individuals will differently respond to such emotional difficulties based on their personal characteristics. Thus, for the present study, there was: a) an examination of whether COVID-19

psychological burden might play a role in societal reactions (i.e., towards the victim and perpetrator) to the COVID-19 driven violent mistreatment of a minority group member; b) a test of the extent that COVID-19 psychological burden might influence whether less prejudiced individuals (i.e., low RWA participants) will report greater favorable responding towards a suffering outgroup member relative to more prejudiced individuals (i.e., high RWA participants); c) and a test of whether the emotional burden caused by the pandemic inhibits favorable responding among individuals with lower prejudice (low RWAs).

**Right Wing Authoritarianism**

*Right Wing Authoritarianism* (RWA) is a stable social ideological attitude defined as the covariation of three components: conventionalism, authoritarian submission, and authoritarian aggression (Altemeyer, 1981; Duckitt, Wagner, du Plessis, & Birum, 2002; Duriez & Van Hiel, 2002). There is a broad body of evidence demonstrating that RWA is strongly related to outgroup-directed prejudice and prejudice-related beliefs (Duckitt & Sibley, 2007; Duckitt et al, 2002; Hodson & Costello, 2007). However, there has been considerable empirical attention given to the extensive historical (Greene, Johns, & Smith, 2001; Hovland & Sears, 1940) and contemporary (Johnson et al., 2020; Johnson & Lecci, 2020) attention given to “hate-driven” physical violence against innocent minority group members. The relationship between authoritarianism and punitive reactions towards the *perpetrators* of such minority-directed violence has been surprisingly sparse. We here examine this issue because violent hate-crime perpetrators might interpret any “societal leniency” towards these insidious and harmful criminal actions as an “endorsement” of their hateful cause (Monroe, 2008; Staub, 2002).

Moreover, public perceptions and reactions are important in the context of legal prosecution, as members of the public can serve on juries that make important decisions, including determining whether to indict (formally charge) the perpetrator and/or financially compensate the victim.

The research on authoritarianism has typically evolved as a study of individual differences (Altemeyer, 1981). In the present study, we instead sought to apply a personality x situation approach (Fleeson, 2004). Specifically, we explored the role of contextual factors that might *moderate* the impact of RWA on prejudiced reactions. The bulk of the limited research on this issue has shown that intergroup contact is especially effective in diminishing prejudice among persons scoring high on RWA (Dhont & Van Hiel, 2009; Hodson, 2008). We extend the research in this area by exploring the moderating role of emotional duress from difficult life circumstances (i.e., the COVID-19 psychological burden). This particular focus is relevant because of the tendency for persons scoring low on RWA to report egalitarian, non-prejudiced, and justice-driven beliefs (Dhont & Van Hiel, 2009; Hodson, 2008). We were particularly interested in examining how *robust* and *resilient* these more positive intergroup responses would be in the face of experiencing significant emotional challenges (i.e., COVID-19 psychological burden). In examining this issue, we directly address recent concerns regarding "virtue signaling" (i.e., seeking to accumulate recognition and credit by declaring their support for inclusive, egalitarian), and "justice driven" ideals (Chaves, 2020; Mayer, 2020) in America and across the world.

Importantly, there is strong empirical evidence suggesting that racially sensitive and justice driven reactions among majority group members require both motivations (Major,

Sawyer, & Kunstman, 2013; Monteith, 1993; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002) and cognitive resources (Spears & Haslam, 1997; Von Knippenberg, Dijksterhuis, & Vermeulen, 1999). For the current examination, in a case of COVID-19 assault of an Asian, we tested the resilience of two forms of racially sensitive and justice-driven reactions among our participants while they were under COVID-19—related psychological burden: a) *sensitivity to the victim suffering* (i.e., high degrees of empathic responding); and b) *anti-perpetrator reactions* (i.e., high degrees of moral outrage towards the perpetrator and strong beliefs that he committed a hate crime). We further examined how these reactions would predict perpetrator-directed punitive responding.

**Putting it all Together: Overview and Predictions**

In Study One, in a case of a COVID-19 physical assault of an Asian man by a White man, we examined the association of COVID-19 psychological burden and RWA with perpetrator-punitive responding (i.e., support for criminal charges), hypothesizing positive associations for both independent variables. In addition, we tested whether the association between RWA and perpetrator-punitive responding would be moderated by the degree that our participants have suffered COVID-19 psychological burden. We also explored the mediating role of sensitivity to the victim suffering (i.e., empathic responding). The central purpose of Study Two was to replicate and extend the findings of Study One. Specifically, we aimed to replicate the main effect of COVID-19 psychological burden and RWA on perpetrator-punitive responding and the moderator role of COVID-19 psychological burden, by investigating a further mechanism that

can account for these associations. In particular, we examined the mediating role of anti-perpetrator reactions (i.e., moral outrage, hate crime perceptions).

Consistent with previous research demonstrating that racially sensitive and justice driven reactions require both motivation (Major, Sawyer, & Kunstman, 2013; Monteith, 1993; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002) and cognitive resources (Spears & Haslam, 1997; Von Knippenberg, Dijksterhuis, & Vermeulen, 1999), we propose that COVID-19 psychological burden should deplete both the motivational and cognitive resources necessary to maintain high levels of racial sensitivity and justice driven ideals among low RWA participants. Consequently, under conditions of minimal levels of psychological burden, there should be a: a) a negative association between RWA and sensitivity to victim suffering (i.e., greater sensitivity among low RWA participants); and b) a negative association between RWA and anti-perpetrator reactions (i.e., greater negative reactions among low RWA participants). Both the suffering sensitivity and anti-perpetrator reactions should, in turn, predict a negative association between RWA and perpetrator-directed punitive reactions. However, at high levels of psychological burden, the differential victim suffering sensitivity and perpetrator negative reactions as a function of RWA (and the concomitant perpetrator-directed punitive responding) should be reduced to non-significance.

## Study One

Participants completed an RWA measure and reported the extent they were experiencing COVID-19 psychological burden (e.g., loss of hope, sleep, optimism, and motivation). They then read a passage describing a COVID-19–related physical assault by a White male on a Chinese male in the United States. After reading the passage, participants completed measures that assessed their a) victim-directed empathic responding; and b) perpetrator-directed punitive responding (i.e., the extent that they supported criminally charging the perpetrator).

Based on the rationale presented earlier, we expected an interaction effect between RWA and psychological burden loss such that at low levels of resource loss, there should be stronger sensitivity to victim suffering and greater perpetrator-directed punitive responding among low RWA relative to high RWA participants. Specifically, at low psychological burden levels, we expected a negative association between RWA and victim-directed empathy (H1) and perpetrator-directed punitive responding (H2). However, at high psychological burden levels, the association between RWA and our outcome measures should be reduced to non-significance. We further expected that *moderated-mediational* analysis would reveal that at low burden levels (but not high burden levels) victim-directed empathy would mediate the association between RWA and perpetrated-directed punitive responding (H3).

## Method

### Participants

The participants were 143 (89 male, 54 female) who were recruited using MTurk in the United States. They were White (N = 106), Black (N = 28), and Hispanic (N = 9) (age: M = 37.68, SD = 11.17, range: 23–70). To ensure the quality of the data, participants had to report an MTurk reputation score of .90 or greater (Chandler & Shapiro, 2016).

Because previous studies have not tested the specific interaction between RWA and resource loss, we were unable to conduct a-priori power analysis to estimate the needed sample size. Our sample size was based on the following factors: (a) it is similar to sample sizes utilized in past research on reactions to minority-directed physical violence (Cohrs, & Asbrock, 2009; Dru, 2007), and (b) it was within our budget. We used G*Power to conduct a post-hoc power analysis. The results indicated that given the effect sizes of the interaction effect found in the current study, the achieved statistical power ranged from .77 to .90.

**Procedure**

During the early phases of the COVID-19 pandemic (i.e., July, 2020), participants were recruited for a study titled “Decision Making” and received financial compensation for their participation. As a portion of the “background information”, they completed the Resource Loss Scale and the RWA short scale. Participants were then informed in the instructions that the study focused on how people make decisions about various life situations. Next, they read a “newspaper story” that described a situation involving a White male who attacked a Chinese passenger on a train. The ethnicity of both parties and a picture of them was presented. The story stated that the White male (the assailant) approached the Chinese passenger, who was not wearing a mask, and shouted loudly, “Why are you wearing the mask—you must be

carrying the corona virus! I saw you sneeze earlier so you shouldn't be out!" The victim calmly replied that he has allergies and that is why he sneezed. The assailant persisted in making belittling remarks and then kicked the victim in the chest three times, which resulted in the victim falling on the floor. He then stood directly over the victim and said, "You had better get off at the next stop because you are putting us all in danger! I do not want to get sick!"

After reading the passage, participants completed several measures including *victim-directed empathic responding* and *perpetrator-directed punitive responding.* Debriefing statements included a discussion of the importance of cultural diversity, intergroup respect, nonviolence, etc.

**Measures**

*COVID-19 psychological burden* was assessed by the *Resource Loss Scale* (α = .95), modified by the current authors for COVID-19. Using a 5-point scale (1 = no loss to 5 = great loss), participants reported the amount of COVID-19 pandemic–induced loss that they felt in areas such as hope, sleep, sense of optimism, and motivation to get things done. This scale was chosen because it has been shown to account for a significant amount of the variance in mental health outcomes in previous research conducted during catastrophic stressors (Hobfoll, 2012; Sattler et al., 2014, 2018). Participant then completed the RWA Short Scale (Manganelli Rattazzi et al., 2007; α = .92) using a 5-point scale (1 = strongly disagree to 5 = strongly agree).

After reading the passage, participants completed several measures using a 5-point scale (1 = not at all to 5 = very much) to indicate their responses. *Victim-directed empathy* (see Batson, 1991, 1995) which assessed by averaging (α= .85) the extent participants experienced

five emotions (compassion, moved, soft-hearted, warmth, sympathy) for the victim (1-very little, 7-very much). *Perpetrator-directed punitive responding* was measured by the average (α = .74) of items that assessed (a) the extent that the participants felt that the assailant should be arrested; and (b) the extent to which participants felt that the assailant should be criminally charged (i.e., indicted) for his actions if they were on a grand jury.

**Statistical Analysis Plan**

*Analysis of the Hypothesized Interaction*. Because RWA and COVID-19 psychological burden are continuous variables, we used PROCESS Model 1 (Hayes, 2013) to test the significance of the interaction between RWA and resource loss. PROCESS is a SPSS macro that executes path analysis-based moderation and mediation analysis using bootstrapping measures with 10,000 samples.

*Probing the Interactions*. PROCESS Macro Model 1 provides assessments of the effects of an independent variables (RWA) at low (one SD below the mean), moderate (at the mean), and high (one SD above the means) levels of the continuous moderator (COVID-19 psychological burden).

*Moderated-Mediation.* To test our expectation that victim empathy would mediate the RWA-punitive responding association at low (but not high) COVID-19 psychological burden levels, we utilized the PROCESS Macro Model 7 (Hayes, 2013). We used path analysis to provide further corroboration for our expectations.

# Results

## Victim-Directed Empathic Responding

In support of H1 (see Figure 1), the RWA x COVID-19 psychological burden interaction for empathic responding reached significance, $R^2$ *Change* = .032, $F(1, 139) = 4.90$, $p = .028$, B = .17, 95% CI [.02, .32]. A probe of the interaction provides further confirmation to our expectations. At one standard deviation below the mean ($b = -.35$, $SE = .11$, $t = -3.12$, $p = .002$), and at the mean of COVID-19 psychological burden ($b = -.18$, $SE = .08$, $t = -2.13$, $p = .034$), lower RWA was associated with greater empathic responding. However, at one standard deviation above the mean, there was no association between RWA and empathic responding, $b = -.001$, $SE = .12$, $t = -.012$, $p = .990$.

## Perpetrator-Directed Punitive Responding

In support of H2 (see Figure 2), the RWA x resource loss interaction for punitive responding reached significance, $R^2$ *Change* = .074, $F(1, 139) = 12.30$, $p < .001$, B = .35, 95% CI [.15, .55]. Consistent with our expectations, at one standard deviation below the mean ($b = -.66$, $SE = .14$, $t = -4{,}49$, $p < .001$), and at the mean of COVID-19 psychological burden ($b = -.29$, $SE = .10$, $t = -2.75$, $p = .006$), lower RWA was associated with greater punitive responding.

However, at one standard deviation above the mean, there was no association between RWA and punitive responding, *b* = .06, *SE* = .15, *t* = .42, *p* = .669.

**Moderated Mediational Effects**

In support of H3 , a *moderated-mediation* effect demonstrated that empathic responding mediated the association between RWA and perpetrator-directed punitive responding at psychological burden levels, 95% CI [-.3430, -0337], but not at high psychological burden levels, 95% CI [-.1021, .1675]. The index of moderated mediation was also significant, b = .08, 95% CI [.0229, .2078]. Moreover, the results of path analysis provided converging evidence for the moderated-mediation effect (see Figure 3).

## Brief Discussion

The results of Study One supported our major expectations. There was an interaction effect between RWA and COVID-19 psychological burden such that at low burden levels, there was stronger sensitivity to victim suffering (i.e., greater empathy). A moderated-mediational analysis revealed that at low (but not high) burden levels,  victim-directed empathy mediated the association between RWA and perpetrated-directed punitive responding. Therefore, both RWA and COVID-19 psychological burden related positively to anti-social reactions like lower support for perpetration-punitive responding. The detrimental effects of COVID-19 psychological burden were also evident in that it inhibited the support for perpetrator-punitive responding among low-prejudice individuals (i.e., low RWAs), reducing it to nonsignificance.

## Study Two

The central purposes of Study Two were to replicate and extend the findings of Study One by assessing the mediating role of anti-perpetrator reactions in the RWA and punitive responding association. Our first anti-perpetrator reaction measure was *greater hate crime attributions* towards the perpetrator. Importantly, Leander et al (2020) contend that one form of "sympathy" for perpetrators of "potentially racist" violent acts is diminished beliefs that the injurious actions could be considered a hate crime (i.e., the perpetrator's violent attacks were not driven by racial prejudice). In support of their assertions, they found that feelings of disempowerment among majority group members predicted less certainty that perpetrators of well-known attacks on minority group members (e.g., Pittsburgh Synagogue shooter) were driven by racial prejudice. Thus, for the current study, increased hate crime perceptions should reflect greater negative feelings towards the perpetrator.

Our second anti-perpetrator reaction measure was *moral outrage* towards the perpetrator. Importantly, previous research has shown that witnessing unfair treatment of

others triggers moral outrage (Jost & Hunyady, 2002) which is an outwardly focused emotion that motivates individuals to seek justice and reduce inequalities (Montada, Schmitt, & Dalbert, 1986; Montada & Schneider, 1989). Moral outrage tends to be targeted towards larger systems that have allowed the justice-related violations to occur, in general, and the specific perpetrators of such violations, in particular (Darley & Pittman, 2003; Iyer, Leach, & Crosby, 2003; Montada et al., 1986; Montada, & Schneider, 1989; Pagano & Huo, 2007). Thus, for the current study, high degrees of moral outrage towards the White perpetrator of an attack a minority group member reflects abhorrence of those violent actions and revulsion towards the perpetrator.

To test the mediating roles of the two forms of anti-perpetrator reactions, participants completed the same RWA measure and COVID-19 psychological burden measures from Study One and the same violent assault passage with the Chinese victim. After reading the passage, participants completed measures that assessed their a) hate crime perceptions (i.e., perpetrator was driven by prejudice); b) perpetrated-directed moral outrage; and c) perpetrator-directed punitive responding (i.e., the extent that they supported criminally charging the perpetrator).

We expected an interaction effect between RWA and COVID-19 psychological burden such that at low burden levels, there should be greater anti-perpetrator reactions and perpetrator-directed punitive responding among low RWA relative to high RWA participants. Specifically, we expected a negative association between RWA and hate crime perceptions (H4), perpetrator-directed moral outrage (H5), and perpetrator-directed punitive responding (H6). However, at high resource loss levels, the association between RWA and our outcome

measures should be reduced to non-significance. We further expected that *moderated-mediational* analysis would reveal that at low burden levels (but not high resource loss levels): a) hate crime perceptions (H7) and moral outrage (H8) would mediate the association between RWA and perpetrated-directed punitive responding.

## Method

### Participants

The participants were 250 (152 male, 96 female, 2 non-binary) who were recruited using MTurk in the United States. They were White (N = 191), Black (N = 30), Hispanic (N = 27), and other (N=2); (age: M = 36.9, SD = 10.23, range: 19-65). To ensure the quality of the data, participants had to report an MTurk reputation score of .90 or greater (Chandler & Shapiro, 2016).

### Procedure

The procedure was identical to the Study One procedure. After reading the passage, participants completed several measures including *hate-crime perceptions*, *perpetrator-directed moral outrage,* and *perpetrator-directed punitive responding.* Debriefing statements included a discussion of the importance of cultural diversity, intergroup respect, nonviolence, etc.

### Measures

To assess *COVID-19 psychological burden*, participants completed the *Resource Loss Scale* (α = .93) and the RWA Short Scale (Manganelli Rattazzi et al., 2007; α = .92).

After reading the passage, participants completed several measures using a 5-point scale (1 = not at all to 5 = very much) to indicate their responses. Since attacks on minority group members are defined as "hate crimes" if they manifest evidence of prejudice toward the minority group that was the target (Berk, 1990; Morgan, Wisneski, & Skitka, 2011; Gover, Harper, & Langton, 2020), *hate crime perceptions* were measured by averaging (α = .70) participant certainty that: a) the attack on the victim was due to "group-based discrimination; and b) the perpetrator held group-based prejudices towards the victim. *Perpetrator-directed moral outrage* was assessed by averaging (α = .70) the extent that participants felt hostile, angry, outraged, annoyed, and disgusted towards the perpetrator, on a scale ranging from 1 (= not at all) to 5 (= very much). This widely accepted measure of moral outrage which has been adopted from previous studies (e.g., Ashburn-Nardo, 2016; Pacilli et al.,2018 ). Finally, *perpetrator-directed punitive responding* was measured by the same averaging of items (α = .61) as in Study One. We utilized the same statistical analysis plan as Study One.

## Results

### Hate Crime perceptions

In support of H4 (see Figure 4), the RWA x COVID-19 psychological burden interaction reached significance, $R^2$ *Change* = .019, $F(1, 228) = 5.08$, $p = .025$, B = .14, 95% CI [.02, .26]. A

probe of the interaction provides further confirmation to our expectations. At one standard deviation below the mean ($b$ = -.37, $SE$ = .09, $t$ = -4.21, $p$ < .001), and at the mean of COVID-19 psychological burden, ($b$ = -.22, $SE$ = .07, $t$ = -3.06, $p$ = .0002), lower RWA was associated with greater hate crime perceptions. However, at one standard deviation above the mean, there was no association between RWA and hate crime perceptions, $b$ = -.07, $SE$ = .11, $t$ = -.69, $p$ = .490.

**Perpetrator-Directed Moral Outrage**

In support of H5 (see Figure 5), the RWA x COVID-19 psychological burden interaction reached significance, $R^2$ *Change* = .022, $F$(1, 228) = 5.34, $p$ = .021, B = .17, 95% CI [.02, .30]. At one standard deviation below the mean ($b$ = -.32, $SE$ = .10, $t$ = -3.1, $p$ = .002), lower RWA was associated with greater moral outrage. However, at the mean of COVID-19 psychological burden ($b$ = -.14, $SE$ = .08, $t$ = -1.67, $p$ = .097), and one standard deviation above the mean, $b$ = .04, $SE$ = .12, $t$ = .29, $p$ = .769, there was no association between RWA and moral outrage,

**Perpetrator-Directed Punitive Responding**

In support of H6 (see Figure 6), the RWA x COVID-19 psychological burden interaction reached significance, $R^2$ *Change* = .06, $F$(1, 228) = 16.64, $p$ < .001, B = .25, 95% CI [.13, .37]. At one standard deviation below the mean ($b$ = -.42, $SE$ = .09, $t$ = -4.93, $p$ < .001), at the mean of COVID-19 psychological burden ($b$ = -.16, $SE$ = .07, $t$ = -2.27, $p$ = .023), lower RWA was associated with greater punitive responding. However, atone standard deviation above the mean, $b$ = .10, $SE$ = .11, $t$ = .96, $p$ = .335, there was no association between RWA and punitive responding.

**Moderated Mediational Effects**

In support of H7, hate crime perceptions mediated the association between RWA and perpetrator-directed punitive responding at low COVID-19 psychological burden , 95% CI [-.2306, -.0625], but not at burden levels, 95% CI [-.1006, .0675]. The index of moderated mediation was also significant, b = .05, 95% CI [.0045, .1128]. Moreover, the results of path analysis provided converging evidence for the moderated-mediation effect (see Figure 7).

In support of H8, perpetrator-directed moral outrage mediated the association between RWA and perpetrator-directed punitive responding at low COVID-19 psychological burden, 95% CI [-.1850, -.0179], but not at high burden levels, 95% CI [-.0494, .0939]. The index of moderated mediation was also significant, b = .05, 95% CI [.0064, .1066]. Moreover, the results of path analysis provided converging evidence for the moderated-mediation effect (see Figure 7).

## General Discussion

Throughout the world, the COVID-19 pandemic has been associated with considerable and persistent anti-Asian bias. There is also growing evidence of societal apathy and indifference towards these atrocious acts of discrimination (Escobar, 2020; Fang, 2020). Importantly, historians contend that societal reactions to minority-directed violence have clear implications for whether racist individuals or groups will engage in further hateful and violent actions toward disadvantaged others (Monroe, 2008; Staub, 1989). In one of the few direct assessments of factors that influence societal reactions to COVID-19—related anti-Asian

violence, the findings of the current study demonstrated that contextual factors (i.e., COVID-19 psychological burden) and personality-related factors (i.e., participant right wing authoritarianism) independently and jointly perpetrator-directed punitive reactions in an instance of COVID-19 assault of an Asian. When they were experiencing minimal COVID-19 psychological burden, participants scoring low on RWA were more likely to report greater sensitivity to the victim's suffering (Study One) and greater anti-perpetrator negative reactions (Study Two) relative to high RWA participants. This greater sensitivity to victim suffering and greater anti-perpetrator negative responding among low RWA participants, in turn, predicted stronger support for perpetrator-directed punitive responding (i.e., criminal indictment). However, as the psychological burden increased, the differential suffering sensitivity and perpetrator sympathy (and the concomitant perpetrator-directed punitive responding) as a function of RWA was significantly diminished and even reduced to non-significance.

**COVID-19 Psychological Burden**

Across cultures, disease-related pandemics have been associated with deleterious mental health outcomes among those in the affected areas (Jalloh et al., 2018; O'Leary, Jalloh, & Neria, 2018). Although there has been a recent examination of the impact of such disease-driven psychological burden on anti-systematic attitudes (Henrikas et al., 2021), a pervasive and insidious component of the COVID-19 pandemic is substantial increase in the violent and prejudicial treatment of Asians around the world (Cheng et al, 2020; Ellerbeck, 2020; Gover et al., 2020). Our findings demonstrated that, in an incident of unprovoked COVID-19 driven violence against an innocent Asian victim, COVID-19 psychological burden played a significant

role in both positive victim-directed actions (i.e., empathy) and negative reactions towards the perpetrator (i.e., moral outrage, hate crime attributions, punitive reactions). Moreover, we demonstrated that social scientists should consider how individual differences in personality characteristics (i.e., RWA) might interact with disease-driven psychological burden to influence reactions to violent mistreatment of minority group members. Specifically, the psychological burden of COVID-19 was shown to "stifle" the oft-cited good will of those who typically report minority-directed favorable reactions (i.e., low RWA individuals). This patten of findings provide further validation to previous research demonstrating that emotional difficulties due to difficult life circumstances are linked to diminished sensitivity to the suffering of others (i.e., empathic responding) in healthcare settings (Koehl-Hackert et al., 2012; West, 2012) and laboratory settings (Buruck et al., 2014).

The current findings also have implications for research focused for the oft-cited tendency for stress associated with economic scarcity to be linked with detrimental treatment of minority group members (Bianchi, Hall, & Lee, 2018; Ho et al., 2013; Krosch & Amodio, 2014). In the most relevant research, Krosch et al. (2017) examined the moderating role of individual differences in the motivation to appear non-prejudiced in a laboratory setting. The group most similar to our low RWA participants would be those individuals who were highly motivated to appear non-prejudiced. They researchers found that, when resources were framed as scarce (vs. abundant or a control condition), low-motivation to appear non-prejudiced participants allocated less to Black than White recipients, whereas high-motivation participants allocated more to Black than White recipients. Our current findings extend this vital area of research by suggesting that, when they are facing substantial "real world"

emotional duress from a severe pandemic, high motivation to appear non-prejudiced participants may not have the cognitive resources to sustain their "minority-directed favorability" reactions. Future research that provides a direct assessment of this issue would certainly extend economic stress and outgroup-directed prejudice literature.

**Right Wing Authoritarianism and Outgroup-Directed Prejudice**

There has been limited empirical attention given to exploring factors that might moderate the impact of right-wing authoritarianism on outgroup-directed reactions, except research on intergroup contact (Asbrock et al., 2012; Dhont & Van Hiel, 2012; Hodson et al., 2009). The present findings extended the RWA and prejudice research by "testing the limits" of the racially sensitive reactions which are characteristic of low RWA individuals. Our findings revealed, in an instance of an unwarranted attack against a minority group member, that variability in justice-driven reactions (i.e., greater sensitivity to the victim suffering, greater anti-perpetrator negative reactions) as a function of RWA (i.e., low RWAs are more driven by justice motivation) fades as COVID-19 psychological burden increases. These results are consistent with a number of theoretical perspectives that suggest racially sensitive reactions among majority group members require both motivation (Major et al., 2013; Monteith, 1993; Monteith

et al., 2002) and cognitive resources (Spears & Haslam, 1997; Von Knippenberg et al., 1999). It seems that psychosocial resource loss may deplete both these resources necessary to maintain high levels of racial sensitivity among low RWA participants. The present results also corroborate other studies that have shown that in highly threatening situations, such as in the face of terrorist threat, even liberal individuals tend to raise their prejudice level (Van de Vyver, Houston, Abrams, & Vasiljevic, 2016).

**Intergroup Processes**

One of the most oft-cited findings in the empathic responding research literature is that there is a tendency for dampened or absent empathic responses (and associated physiological indicators) for the pain of social or cultural outgroups among White Americans (e.g., Cikara et al., 2014; Decety, Echols, & Correll, 2010). However, the bulk of the extant research in this area involves reporting empathy for outgroup members in laboratory settings and not “real world” contexts which might tend to involve a rich array of social and cultural influences that might impact empathic reactions. For example, controversial social issues (e.g., violence towards minorities) tend to be significantly influenced by relevant social norms which demonstrate justice motivations and group equality (Tankard & Paluck, 2016; Visitin et al., 2019). This is relevant because our findings revealed that, at low level of COVID-19 psychological burden, low RWA participants may have been driven by social norms to report greater empathy for the Chinese victim relative to the high RWA participants. However, at high resource loss levels, they responded no differently than high RWA participants. These particular pattern of findings

suggest that low RWA individuals may have been "virtue signaling" (i.e., appear sympathetic to the struggles of minority group members, Zaki, & Cikara , 2020) at low resource loss levels.

There is clear evidence that throughout time, and across cultures, dominant group members have inflicted pain and suffering against less advantaged members of society (Monroe, 2008; Staub, 1989). Most recently, Leander et al. (2020) stated that the ubiquitous nature of this phenomenon suggest that societal members *tacitly support* such violence. They demonstrated that such tacit report is reflected in more subtle reactions such as diminished recognition that violence against minorities reflects hate crimes (i.e., the perpetrator was not prejudiced). The current findings provide further evidence that diminished hate crime perceptions reflect tacit support for violence against minority group members. Specifically, we found that diminished hate crime perceptions mediated the association between RWA and reduced punitive reactions towards a majority group perpetrator of minority-directed violence. To extend the research on tacit support for harmful treatment of minorities, our findings demonstrated that a second form of such tacit support is diminished moral outrage towards the perpetrator of violence towards an innocent minority group member. It would be interesting for future research to examine whether similar parameters to tacit support reactions would be relevant for other forms of minority-directed violence (i.e., police violence against unarmed Black men).

## Conclusion

Given that our current examination occurred within the context of the COVID-19 pandemic, it seems important to reflect on the health consequences of our findings. It is notable that health-related organizations (American Public Health Organization, 2020) and

government entities (Bernstein, 2020) have recently declared all forms of race-related discrimination to be a “public health crisis”. Importantly, there is recent evidence that merely becoming aware of unempathic and/or indifferent reactions to one’s suffering tends to facilitate damaging health consequences (Fauchon et al., 2017). The present findings thus suggest that, due to its association with diminished sensitivity to minority group members suffering, challenging life experiences (i.e., COVID-19 psychological burden) can exacerbate this discrimination-driven health crisis---- even among those who are typically expected to be more racially sensitive and culturally enlightened (i.e., low right wing authoritarians).

## References

Aguirre, J. (2020). Corporate America Is in a P.R. Meltdown Over the Black Lives Matter Movement. Retrieved from https://www.vanityfair.com/news/2020/07/corporate-america-in-pr-meltdown-over-black-lives-matter-movement on October 20, 2020.

Altemeyer, R. (1981). *Right-wing authoritarianism*. Winnipeg, MB: University of Manitoba Press.

American Public Health Organization (2020). Declarations of racism as a public health issue. https://www.apha.org/topics-and-issues/health-equity/racism-and-health/racism-declarations. Accessed on September 20, 2020.

Ashburn-Nardo, L. (2016). Parenthood as a moral imperative? Moral outrage and the stigmatization of voluntarily childfree women and men. Sex Roles, 76, 393-401. doi:10.1007/s11199-016-0606-1

Avenanti, A., Sirigu, A., & Aglioti, S. M. (2010). Racial bias reduces empathic sensorimotor resonance with other-race pain. *Current Biology, 20*, 1018-1022. https://doi.org/10.1016/j.cub.2010.03.071

Berk, A. (1990). Thinking about hate-motivated crimes. *Journal of Interpersonal Violence, 5*, 334–349. doi: 10.1177/088626090005003007

Bernstein, B. (2020). CDC employees call on agency to declare racism a public health crisis. https://news.yahoo.com/cdc-employees-call-agency-declare-153846890.htm. Accessed on September 1, 2020.

Buruck, G., Wendsche, J., Melzer, M., Strobel, A., & Dörfel, D. (2014). Acute psychosocial stress and emotion regulation skills modulate empathic reactions to pain in others. *Frontiers in Psychology, 5*, 517. http://dx.doi.org/10.3389/fpsyg.2014.00517.

Campion J, Javed A, Sartorius N, Marmot M. Addressing the public mental health challenge of COVID-19. Lancet Psychiatry 2020;7:657-9. Back to cited text no. 3

Chandler, J., & Shapiro, D. (2016). Conducting clinical research using Crowdsourced convenience samples. *Annual Review of Clinical Psychology, 12*, 53–81. doi: 10.1146/021815-093623.

Chaves, A. (2020). The epidemic of virtue-signaling: worse than COVID-19. Retrieved from The epidemic of virtue-signaling: worse than COVID-19 - American Thinker on March 27, 2021

Cikara, M., Botvinick, M. M., & Fiske, S. T. (2011). Us versus them: Social identity shapes neural responses to intergroup competition and harm. *Psychological Science*, 22, 306–313. doi: 10.1177/0956797610397667

Cikara, M., Bruneau, E. G., & Saxe, R. (2011). Us and them: Intergroup failures of empathy. *Current Directions in Psychological Science*, 20, 149–153. https://doi.org/10.1177/0963721411408713

Cikara, M., Bruneaub, E., Van Bavel, J., & Saxe, R. (2014). Their pain gives us pleasure: How intergroup dynamics shape empathic failures and counter-empathic responses. *Journal of Experimental Social Psychology, 55*, 110–125. doi: 10.1016/j.jesp.2014.06.007

Cohrs, J. C., & Asbrock, F. (2009). Right-wing authoritarianism, social dominance orientation and prejudice against threatening and competitive ethnic groups. *European Journal of Social Psychology, 32,* 270–289. https://doi.org/10.1002/ejsp.545

Darley, J. M., & Pittman, T. S. (2003). The psychology of compensatory and retributive justice. Personality and Social Psychology Review, 7, 324–336. doi:10.1207/S15327957PSPR0704_05

Decety, J. & Cowell, J. (2015). Empathy, justice, and moral behavior. AJOB Neuroscience, 6, 3-14

Dhont, K., & Van Hiel, A. (2009). We must not be enemies: Interracial contact and the reduction of prejudice among authoritarians. *Personality and Individual Differences, 46*, 172-177. https://doi.org/10.1016/j.paid.2008.09.022

Dhont, K., & van Hiel, A. (2012). Intergroup contact buffers against the intergenerational transmission of authoritarianism and racial prejudice. *Journal of Research in Personality, 46*, 231–234. doi:10.1016/j. jrp.2011.12.008

Dru, V. (2007). Authoritarianism, social dominance orientation and prejudice: Effects of various self-categorization conditions. *Journal of Experimental Social Psychology, 43*, 877–888. https://doi.org/10.1016/j.jesp.2006.10.008

Duckitt, J., & Sibley, C. G. (2007). Right-wing authoritarianism, social dominance orientation and the dimensions of generalized prejudice. *European Journal of Personality, 21,* 113–130. doi:10.1002/ per.614

Duriez, B., & Van Hiel, A. (2002). The march of modern fascism. A comparison of social dominance orientation and authoritarianism. *Personality and Individual Differences, 32,* 1199-1213. https://doi.org/10.1016/S0191-8869(01)00086-1

Ellerbeck, A. (2020, May 11). Over 30 percent of Americans have witnessed COVID-19 bias against Asians, poll says. *NBC*. https://www.nbcnews.com/news/asian-america/over-30-americans-have-witnessed-covid-19-bias-against-asians-n1193901. Accessed on July 10, 2020.

Escobar, N. (2020, March 4). When Xenophobia Spreads Like A Virus. Retrieved from https://www.npr.org/2020/03/02/811363404/when-xenophobia-spreads-like-a-virus.

Fang, M. (2020. September 1). Advocates collect nearly 1,500 reports of Anti-Asian racism in the U.S. over the past month. Retrieved from https://www.huffpost.com/entry/asian-american-

reports-
racismcoronavirus_n_5ea2cfa8c5b6d376358dd3be?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuYmluZy5jb20vc2VhcmNoP3E9YW50aS1hc2lhbitkaXNjcmltaW5hdGlvbitjb3ZpZCsxOSZmb3JtPUVETlRIVCZta3Q9ZW4tdXMmaHR0cHNtc249MSZtc25ld3M9MSZyZWNfc2VhcmNoPTEmcmVmaWc9N2M5OGI0NjY1ODE4NDVmYzgyMWRmOWRmNWVkY2YwMjU&guce_referrer_sig=AQAAALUeYy1BVYo48x7lEdQhnl_RGoM47tIb_G3ztJco1L5bO5x6xEzBxAPCXToFT2y_1u_nsRpUVcTppp5aEqT1MHGRaAqT9Z9I5GsrnHy_PxVhRnxrfqygls1Zy1NQTJsoL-Hm5epb9h41zS-FcCWnRMkbj1E8lcmqe5gaL1juFjNq.

Fauchon, C., Faillenot, I., Perrin, A.M., Borg, C., Pichot, V., Chouchou, F., Garcia-Larrea, L. & Peyron, R. (2017), Does an observer's empathy influence my pain? Effect of perceived empathetic or unempathetic support on a pain test. *European Journal of Neuroscience, 46*, 2629-2637. https://doi.org/10.1111/ejn.13701

Fleeson, W. (2004). Moving personality beyond the personsituation debate—The challenge and the opportunity of withinperson variability. *Current Directions in Psychological Science, 13*, 83–87. https://doi.org/10.1111/j.0963-7214.2004.00280.x

Freedy, J. R., Saladin, M. E., Kilpatrick, D. G., Resnick, H. S., & Saunders, B. E. (1994). Understanding acute psychological distress following natural disaster. *Journal of Traumatic Stress, 7*, 257–273. DOI: 10.1007/BF02102947

Gover, A.R., Harper, S.B., & Langton, L. (2020). Anti-Asian hate crime during the COVID-19 pandemic: Exploring the reproduction of inequality. *American Journal of Criminal Justice, 45*, 647–667. doi: 10.1007/s12103-020-09545-1

Gracia, E., & Herrero, J. (2007). Perceived neighborhood social disorder and attitudes toward reporting domestic violence against women. *Journal of Interpersonal Violence, 22*, 737–752. https://doi.org/10.1177/0886260507300755

Greene, E., Johns, M., Smith, A. (2001). The effects of defendant conduct on jury damage awards. *Journal of Applied Psychology*, 86, 228–237. DOI: 10.1037/0021-9010.86.2.228

Han, N. (2020, May 24). I don’t scare easily, but COVID-19 virus of hate has me terrified: Reporter’s Notebook. *ABC News*. https://abcnews.go.com/US/asian-americans-covid-19-racism-virus-hate-reporters/story?id=70810109. Accessed on June 15, 2020

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

Hein, G., Silani, G., Preuschoff, K., Batson, C.D., & Singer, T. (2010). Neural responses to ingroup and outgroup members' suffering predict individual differences in costly helping. *Neuron, 68,* 1, 149-160. https://doi.org/10.1016/j.neuron.2010.09.003

Hobfoll, S. E. (1988). *The ecology of stress*. Hemisphere.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*, 513–524. https://doi.org/10.1037/0003-066X.44.3.513

Hobfoll, S. E. (2012). Conservation of resources and disaster in cultural context: The caravans and passageways for resources. *Psychiatry, 75*, 227–232. DOI: 10.1521/psyc.2012.75.3.227

Hobfoll, S. E., Canetti-Nisim, D., & Johnson, R. J. (2006). Exposure to terrorism, stress-related mental health symptoms, and defensive coping among Jews and Arabs in Israel. *Journal of Consulting and Clinical Psychology*, 74, 207–218. DOI: 10.1037/0022-006X.74.2.207

Hodson, G., & Costello, K. (2007). Interpersonal disgust, ideological orientations, and dehumanization as predictors of intergroup attitudes. *Psychological Science, 18*, 691–698. doi:10.1111/ j.1467–9280.2007.01962.x

Hodson, G., Harry, H., & Mitchell, A. (2009). Independent benefits of contact and friendship on attitudes toward homosexuals among authoritarians and highly identified heterosexuals. *European Journal of Social Psychology, 39*, 509-525. https://doi.org/10.1002/ejsp.558

Hovland, C. I., & Sears, R. R. (1940). Minor studies of aggression: VI. Correlation of lynchings with economic indices. *Journal of Psychology*, 9, 301–310. https://doi.org/10.1080/00223980.1940.9917696

Iyer, A., Leach, C. W., & Crosby, F. (2003). White guilt and racial compensation: The benefits and limits of self-focus. Personality and Social Psychology Bulletin, 29, 117–129. doi:10.1177/0146167202238377

Johnson, J. Lecci, L., & Dovidio, J.  (2020). Black Intragroup Empathic Responding to Police Interracial Violence: Effects of Victim Stereotypicality and Blacks' Racial Identification. *Social Psychological and Personality Science, 11*, 579-587. https://doi.org/10.1177/1948550619859316

Johnson, J.,  & Lecci, L.. (2020). Does Empathy Undermine Justice? Moderating the Impact of Empathy for a White Policeman on Responses to Police Interracial Violence. *British Journal of Social Psychology, 59, 752-772.* https://doi.org/10.1111/bjso.12347

Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. European Review of Social Psychology, 13, 111–153. doi:10.1080/10463280240000046

Koehl-Hackert, N., Schultz, J. H., Nikendei, C., Möltner, A., Gedrose, B., van den Bussche, H., & Jünger, J. (2012). Belastet in den Beruf - Empathie und Burnout bei Medizinstudierenden am Ende des Praktischen Jahres [Burdened into the job -- final-year students' empathy and burnout]. *Z Evid Fortbild Qual Gesundhwes. 2012*, 106, 116-24. German. doi: 10.1016/j.zefq.2012.02.020.

Leander, N. P., Kreienkamp, J., Agostini, M., Stroebe, W., Gordijn, E. H., & Kruglanski, A. W. (2020). Biased hate crime perceptions can reveal supremacist sympathies. *Proceedings of the National Academy of Sciences*. ePub: ePub. doi: 10.1073/pnas.1916883117

Major, B., Sawyer, P., & Kunstman, J. W. (2013). Minority perceptions of Whites' motives for responding without prejudice: The Perceived Internal and External Motivation to Avoid Prejudice Scales. *Personality and Social Psychology Bulletin, 39*, 401–414. DOI: 10.1177/0146167213475367

Manganelli Rattazzi, A. M., Bobbio, A., & Canova, L. (2007). A short version of the Right-Wing Authoritarianism (RWA) Scale. *Personality and Individual Differences, 43*, 1223–1234. https://doi.org/10.1016/j.paid.2007.03.013

Masters, S. (2020). Piers Morgan blasts 'virtue-signalling' celeb calls to CUT police after George Floyd death. Retrieved from https://www.express.co.uk/celebrity-news/1294337/piers-morgan-twitter-column-defund-the-police-natalie-portman-george-floyd-news on October 20, 2020.

Mayer, M. (2020). Virtue-signaling isn't courage. Retrieved from Virtue-signaling isn't courage - The Spectator on March 22, 2021

Monroe, K. R. (2008). Cracking the code of genocide: the moral psychology of rescuers, bystanders and Nazis during the Holocaust. *Political Psychology, 29*, 699–673. https://doi.org/10.1111/j.1467-9221.2008.00661.x

Montada, L., Schmitt, M., & Dalbert, C. (1986). Thinking about justice and dealing with one's own privileges: A study of existential guilt. In H. W. Bierhoff, R. L. Cohen, & J. Greenberg (Eds.), Justice in social relations (pp. 125–143). New York, NY: Plenum Press.

Montada, L., & Schneider, A. (1989). Justice and emotional reactions to the disadvantaged. Social Justice Research, 3, 313–344. doi:10.1007/BF01048081

Monteith, M. J. (1993). Self-regulation of prejudiced responses: Implications for progress in prejudice reduction efforts. *Journal of Personality and Social Psychology, 65,* 469–485. https://doi.org/10.1037/0022-3514.65.3.469

Monteith, M. J., Ashburn-Nardo, L., Voils, C. I., & Czopp, A. M. (2002). Putting the brakes on prejudice: On the development and operation of cues for control. *Journal of Personality and Social Psychology, 83,* 1029–1050. DOI: 10.1037//0022-3514.83.5.1029

Morgan, G.S., Wisneski, D.C., & Skitka, L. J. (2011). The expulsion from Disneyland: The social psychological impact of 9/11. *American Psychologist, 66,* 447–454. doi: 10.1037/a0024772

Pacilli, M. G., Giovannelli, I., Spaccatini, F., Vaes, J., & Barbaranelli, C. (2018). Elective abortion predicts the dehumanization of women and men through the mediation of moral outrage. Social Psychology, 49, 287–302. doi: 10.1027/1864- 9335/a000351

Pagano, S. J., & Huo, Y. J. (2007). The role of moral emotions in predicting support for political actions in post-war Iraq. Political Psychology, 28, 227–255. doi:10.1111/j.1467-9221.2007.00563.x

Sattler, D. N., Assanangkornchai, S., Moller, A., Kesavatana-Dohrs, W., & Graham, J. (2014). Indian Ocean tsunami: Relationships among posttraumatic stress, posttraumatic growth, resource loss, and social support at three and fifteen months. *Journal of Traumatic Dissociation,* 15, 219–239. DOI: 10.1080/15299732.2014.869144

Spears, R., & Haslam, S. A. (1997). Stereotyping and the burden of cognitive load. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (p. 171–207). Blackwell Publishing.

Staub, E. (2002). The psychology of bystanders, perpetrators, and heroic helpers. In L. Newman & R. Erber (Eds.), *Understanding genocide: The social psychology of the Holocaust* (pp. 11–42). New York: Oxford University Press.

Staub, E. (2002). The psychology of bystanders, perpetrators, and heroic helpers. In L. Newman & R. Erber (Eds.), *Understanding genocide: The social psychology of the Holocaust* (pp. 11–42). Oxford.

Tankard, M. E., & Paluck, E. L. (2016). Norm perception as a vehicle for social change. Social Issues and Policy Review, 10, 181–211. doi:10.1111/ sipr.12022

Van de Vyver, J., Houston, D. M., Abrams, D., & Vasiljevic, M. D. (2016). Boosting belligerence: How the 7/7 bombings affected liberals' moral foundations and prejudice. *Psychological Science, 27*, 169–177. https://doi.org/10.1177/0956797615615584

Visintin, E. P., Green, E. G., Falomir-Pichastor, J. M., & Berent, J. (2019). Intergroup contact moderates the influence of social norms on prejudice. Group Processes & Intergroup Relations. Advance online publication. https://doi.org/10.1177/136843021983948

Von Knippenberg, A., Dijksterhuis, A., & Vermeulen, D. (1999). Judgment and memory of a criminal act: The effects of stereotype and cognitive load. *European Journal of Social Psychology, 29*, 191–202. https://doi.org/10.1002/(SICI)1099-0992(199903/05)29:2/3<191::AID-EJSP923>3.0.CO;2-O

Zaki, J., & Cikara, M. (2020). Don't be afraid to virtue signal — It can be a powerful tool to change people's minds. *Time*. https://time.com/5859459/in-defense-of-virtue-signaling-2