

Blinded From the Truth? Perceptions of Racial Discrimination During COVID-19

by

Igor Mitrovic

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### **Author's Declaration**

I hereby declare that I am the sole author of this thesis. This is a final copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## Abstract

Despite current efforts to reduce the occurrence of racial discrimination in North America, the recent Black Lives Matter movement suggests that the issue continues to exist. Given that prior research suggests a link between perceptions of discrimination and behaviours and attitudes that perpetuate discrimination, a correlational study was conducted with the purpose of examining whether a current social/global crisis, the COVID-19 pandemic, is associated with such perceptions, thus contributing to the continued existence of racial discrimination. It is predicted that heightened feelings of threat associated with the various repercussions of the COVID pandemic would be associated with heightened justification of the United States social system, and in turn negatively associated with perceptions of racial discrimination towards Black Americans. Furthermore, it is predicted that this indirect effect would be more pronounced in political conservatives than in liberals. An online survey study was conducted on 528 American participants to test these hypotheses. Initial hierarchical regression analyses indicated that COVID threat was not significantly associated with system justification, but that both COVID threat and system justification were significantly associated with perceived racial discrimination (although COVID threat was positively associated with perceived discrimination). Mediation analyses indicated that there was no significant indirect effect of COVID threat on perceived racial discrimination through system justification. Finally, although there were no significant moderated-mediation effects, there were significant interaction effects between COVID threat and political orientation on perceived discrimination, with a more pronounced effect in political conservatives than in liberals. The limitations and implications of the study are discussed.

Key Words: COVID threat, system justification, perceived racial discrimination, political orientation

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## **Introduction**

Experiencing racial discrimination has been linked to a number of physical, psychological and emotional consequences, including depression, low self-esteem, and poor physical health (Berger & Sarnyai, 2014; Brown et al., 2000). Furthermore, it is associated with social repercussions such as disparate impact in employment settings and victimization through violence (Meyer, 2014; Pager & Shepherd, 2008). Given the seriousness of the consequences, various programs, policies, and practices have been designed and implemented with the purpose of reducing racial discrimination and increasing diversity and equality within North America, including diversity training within work settings, and diversity initiatives implemented to increase minority representation within post-secondary educational settings (Meneses et. al., 2020). Despite efforts to reduce it, however, racial discrimination persists as evidenced by the recent high-profile police brutality/murder case of George Floyd in May of 2020, as well as the ensuing Black Lives Matter protests which highlighted other recent high-profile cases of police brutality and violence against Black Americans. Identifying the various factors that contribute to the continued existence of racial discrimination may be necessary for identifying the means through which the issue can be eliminated.

Prior research on discrimination suggests that reduced perceptions of discrimination are associated with/lead to attitudes and behaviours that perpetuate discrimination (Hideg & Wilson, 2020). Indeed, individuals that perceive a lack of discrimination, or that believe that efforts are attempted to reduce discrimination, exhibit a lack of support for individuals that claim that they are being discriminated, as well as increased hostility towards these individuals, even when there is evidence that discrimination may in fact be occurring (to be discussed in more detail later) (Kaiser et al., 2012). Therefore, the purpose of the current research is to examine perceptions of



racial discrimination, and the factors that influence them, as a means of identifying a potential contributor to the persisting issue of racial discrimination in North America. More precisely, the current study is intended to examine perceptions of racial discrimination during novel circumstances/social conditions expected to influence them, the novel COVID-19 pandemic, so as to assess the nature of the association between individuals' perceptions of racial discrimination, and feelings of threat associated with the pandemic. In doing so it is, overall, the aim of the current study to a) contribute to research identifying factors that incite/perpetuate racial discrimination, and b) contribute to research examining the social repercussions of the COVID-19 pandemic.

The research reported in this thesis draws upon literature on system justification theory (Jost & Banaji, 1994; Jost, Banaji & Nosek, 2004) to identify a potential novel contributor to racial discrimination – threat associated with the COVID-19 pandemic – by examining the association between it and perceptions of racial discrimination. More specifically, research suggests that people are motivated to perceive their social systems (including their workplaces, schools, and even their country of residence)<sup>1</sup> as more fair and less flawed than they are when threatened, and that these behaviours/attitudes are more pronounced in certain types of individuals (such as political conservatives). For instance, people may perceive less racial discrimination in their country than is occurring when these systems are threatened (to be discussed in more detail below). Furthermore, research suggests that there is, in turn, a negative association between perceptions of racial discrimination and behaviours that perpetuate racial

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<sup>1</sup> “social systems” more specifically refer to “any social, economic, or political arrangements in which multiple individuals (and/or groups) are embedded—ranging from small-scale systems such as the nuclear family to large-scale systems such as the nation state or the capitalist economy” (Van der Toorn & Jost, 2014). The social system examined in the case of the current research, however, is the United States of America.

discrimination (Kaiser et al., 2012; Hideg & Wilson, 2020), thereby suggesting that perceptions of discrimination contribute to the continued existence of racial discrimination.

There is a dearth of research, however, examining whether and how system justification occurs under extreme social circumstances expected to exacerbate system justifying attitudes, and how this association in turn is related to perceptions of racial discrimination. If system justification is motivated by a perceived threat to oneself or the individual's social system(s), then extreme social circumstances (e.g., global pandemics) should not only elicit system justification but enhance it, given that they can result in multiple simultaneous threats to both the individual and to their social system(s) (e.g., severe economic loss, civil unrest/distrust of the government). However, as stated above, there is a lack of research examining whether, and if so how, extreme social circumstances influence system justifying attitudes. Given that system justification often includes the downplaying or denial of flaws (such as racial discrimination) within one's social system (to be discussed in further detail below), and that the denial or lack of perception of such flaws has been previously linked to behaviours that perpetuate these flaws (see for instance Hideg & Wilson, 2020), it is pertinent to examine system justifying attitudes during extreme social circumstances. Doing so provides a means of identifying a potential contributor to the persistence of such systemic flaws. The current COVID 19 pandemic allows for the rare opportunity to examine just how extreme social circumstances can influence system justifying attitudes.

In addition to the above, there is a lack of research examining how individual-level factors moderate the relationship between the variables listed above (extreme social circumstances, system justification, and perceptions of racial discrimination). More specifically, although examining the association between extreme social circumstances, system justification

and perceived racial discrimination is important, environmental factors rarely influence human behaviour and attitudes in isolation, often interacting with individual-level factors (such as personal beliefs). Examining the association between extreme social circumstances, system justification and perceived racial discrimination is thus insufficient without also considering individual-level factors also linked to system justification and perceived racial discrimination. One important individual level factor linked to both variables is political orientation.

Therefore, in the current thesis, I extend prior system justification research by examining whether threat associated with COVID-19 is associated with heightened system justification, reducing participants' perceptions of racial discrimination. Furthermore, the study also explores whether political orientation moderates the indirect effect of COVID-19 threat on perceptions of racial discrimination via system justification. By examining these predictors of perceived racial discrimination, the intended purpose of the research is to have both important practical and theoretical implications by a) aiding in identifying a potential means through which to increase awareness of the racial discrimination occurring in North America and b) acting as a foundation for future research aimed at identifying methods through which to eliminate racial discrimination.

## **Background Research and Hypotheses**

### **Why do Perceptions of Racial Discrimination Matter?**

Prior to discussing the theories and research that informed the current study, it is pertinent to first discuss why it is necessary to examine perceptions of racial discrimination. Perceptions of discrimination are suggested to be inextricably associated with behaviours and attitudes that perpetuate the existence of racial discrimination and are thus just as important to study as discriminatory behaviour/attitudes. Indeed, as highlighted above, Kaiser et al. (2012)

found that participants shown information on an organization's diversity or employment equity (EE) program—implemented to reduce workplace discrimination and increase minority representation—had shown less support for, and more hostility towards, minorities claiming to be discriminated, than had participants that were simply shown a mission statement for the same organization. This occurred despite a lack of evidence that the diversity and EE programs described were effective. Additionally, Hideg and Wilson (2020) found that increased awareness of past injustices against women increased men's denial of gender discrimination against women in the present. The resulting denial of gender discrimination in turn resulted in reduced support for gender-based employment equity programs.

Perceptions of discrimination, thus, exert a strong influence on behaviours and attitudes that can perpetuate the existence of discrimination. However, as evidenced above, perceptions are subject to bias (Barclay et al., 2017; Lowery et al., 2007; Maner et al., 2005). For instance, perceptions of discrimination, and other forms of social inequality, can be biased by a motivation to justify the social system and perceive it as less flawed when an individual is threatened. This can in turn result in behaviour that perpetuates such flaws by, for instance, denying legitimate claims of discrimination and allowing instances of discrimination to occur unnoticed, unquestioned and/or unpunished. As a result, perceptions of discrimination are an important factor to examine.

### **A Brief Overview of the Theory and Research on System Justification**

As described earlier, perceptions of racial discrimination, as well as other systemic flaws, are often subject to bias. Motivated cognition is a particularly potent biasing factor (Jost et al., 2003; Liviatan & Jost, 2011). More specifically, desire or need to perceive one's

environment (or other stimuli) in a specific manner can result in biased perceptions that fulfil the desire/need of the individual (Balcetis et al., 2006; Jost et al., 2003).

As an example of motivated cognition, individuals often exhibit a certain proclivity to think or act in ways that reduce psychological discomfort/distress when experiencing anxiety-provoking situations (Bowins, 2004). More specifically, when faced with anxiety-provoking stimuli, individuals often reduce any associated psychological distress by perceiving the anxiety-provoking stimuli as less threatening than it is. Indeed, psychological defence mechanisms are found to be exhibited when individuals find themselves in situations that threaten their physical safety, their sense of normalcy, their perceived sense of control over their own lives, their competency, or even their sense of freedom (Friesen et al., 2019; Laurent et al., 2014; Walker & McCabe, 2021). Although these defensive mechanisms serve a palliative function in that they reduce any psychological distress that the individual is experiencing, they often also result in long-term deleterious effects (such as psychopathological issues, including depression) not only for the individual, but for those around them as well (Bahamondes et al., 2021; Walker & McCabe, 2021).

One form of defensive mechanism/motivated cognition is system justification. Indeed, as mentioned above, system justification theory literature posits that individuals often justify/rationalize the flaws within their social systems, perceiving these systems as more fair and less flawed than they are, when the individual or their social systems are threatened (Jost & Banaji, 1994; Jost, Banaji & Nosek, 2004). This is because perceiving oneself as living within a flawed system can elicit further feelings of threat/distress. What exactly system justification consists of, and the factors that elicit system justification are pertinent to the study and so are discussed next. The methods through which people justify their social systems (including the

downplaying and/or denial of systemic flaws, such as racial discrimination) are discussed first, followed by the “triggers” that motivate system justifying behaviours/attitudes.

### ***Forms, and Examples, of System Justification***

**Forms of System Justification.** System justification, as measured in the current research, refers to a set of attitudes and beliefs that people hold regarding the fairness of their social system, and can manifest in several ways. More specifically, system justification can take the form of the legitimization of flaws within the social system, the downplaying of such flaws, or even the denial of these flaws (Proudfoot & Kay, 2014). For instance, Proudfoot and Kay (2014) argue that people often rationalize flaws (such as social inequality), whereby they perceive such flaws as acceptable or warranted. Alternatively, the authors suggest that some individuals downplay flaws within their social systems, wherein they perceive the existence of such flaws and considered them to be unacceptable, but ultimately understate and underestimate the severity of the flaws, or the frequency with which these flaws occur. Further yet, the authors note that some individuals choose to deny the existence of flaws within their social system(s) entirely. Often, this form of justification is accompanied by directional motivated cognition, whereby individuals will actively avoid information that provides evidence that the system is flawed and seek out information that provides evidence that the system is indeed fair (Barclay et al., 2017; Proudfoot & Kay, 2014).

**Examples of System Justification from Prior Research.** Prior research has not only identified the various methods through which people justify their social systems, it also has provided several examples of system justification. That is, researchers have provided numerous records of prior instances of individuals justifying their social systems, providing examples of the types of flaws that are justified, the systems that are justified, and the conditions under which

people justify these flaws and systems. For instance, people have been found to justify inefficient and/or ineffective workplace procedures, programs, and/or policies (Kaiser et al., 2013), especially when feeling as though they are unable to leave, or escape, these systems (Proudfoot et al., 2015). Other flaws that are often justified include economic and environmental flaws, such as global warming/climate change (Feygina et al., 2010; Jylha & Akrami, 2015). Most importantly, however, the unequal and discriminatory treatment of minority groups, has also been found to be justified when individuals feel threatened (Bahamondes et al., 2021; Jost & Hunyady, 2005; Kaiser & Miller, 2001; Kay et al., 2009; Laurin, Shepherd & Kay, 2014).

For instance, Laurin, Shepherd, and Kay (2014) provided evidence of the justification of gender inequality within a social context. More specifically, the researchers found that, when made to believe that emigration was restricted, Canadian participants had justified/legitimized the economic pay gap between men and women in Canada more so than participants that were not made to believe that emigration from Canada was restricted. Additionally, Hideg and Wilson (2020) found that Canadian men that were made aware of past gender inequalities within Canada perceived their current social and workplace environments as fairer towards women than men that were not made aware of prior gender inequalities.

### ***Threats to the System: Factors that Elicit System Justification***

Just as there exist multiple methods of justifying one's social system(s), there also exist multiple conditions/situations that exacerbate system justification. As mentioned above, system justification is often exhibited under threatening and anxiety provoking situations. Indeed, when people experience threats to their social systems, a common reaction is to justify these systems to alleviate any distress associated with the threat by believing that the systems are just/fair, safe, and that they work in the best interest of their citizens (Jost & Banaji, 1994; Jost, Banaji &

Nosek, 2004; Jost et al., 2019). Such threats include system inescapability, system dependence, and/or system criticism (Proudford & Kay, 2014). That is, individuals often justify their social systems when they believe that they are unable to leave these systems, when they believe that their livelihood and/or safety depends on these systems, or when they experience people criticizing these systems and their flaws (Proudford & Kay, 2014).

Importantly, as an extension to the above, it is posited that people often justify their social systems out of a need or desire to perceive themselves as living in a safe, secure, and fair environment (Jost, 2019). That is, although perceiving oneself as being dependent on a social system, or as being unable to escape said system, can be threatening in and of itself, perceiving oneself as being dependent on or unable to leave a system that is not safe, secure, or fair (i.e., a system that is flawed and harmful to the individual or others around them) can be even more threatening/distressing. Therefore, it is suggested that individuals justify their social systems not simply because they feel dependent on or unable to escape these systems, but because they want to feel safe within these systems (Jost, 2019), something which is difficult to accomplish when one actively acknowledges the flaws that exist within these systems.

As stated above, given that threats to one's social system, such as system inescapability, often result in system justifying attitudes/behaviours, it stands to reason that extreme novel circumstances that threaten an individual's social system(s) in a multitude of ways should elicit a strong motivation to justify the system, resulting in the downplaying or denial of the existence of flaws within these systems, such as racial discrimination. The current COVID-19 pandemic serves as one such circumstance.

### **The Potential Link Between COVID-19 and System Justification**



Although initially believed to be no more of a threat than the flu when it first started in late 2019, the current COVID-19 pandemic has resulted in a number of repercussions, including economic, health and psychological repercussions (Arora et al., 2020; International Labour Organization; 2021; Kocak et al., 2021; Lateef et al., 2021; worldometer.info; 2021). For instance, the studies cited above indicate that the pandemic has resulted in the loss of hundreds of millions of individual jobs, caused over three million cases of deaths, and left many living in a constant state of anxiety and fear.

More importantly, some of the repercussions seem to directly mirror the aforementioned threats that elicit system justifying behaviour. For instance, the pandemic has resulted in restrictions on travel (both within and outside of the country), which can result in perceptions of system inescapability. Additionally, the pandemic has resulted in criticism of the government and its effectiveness in helping eliminate the pandemic, which can result in perceptions of system criticism. Finally, losing one's job due to the pandemic may result in perceptions of system dependency given the need to rely on government financial support until the individual can find alternative employment.

Given the tendency for people to justify their social systems when threatened, thereby reducing the extent to which they perceive flaws within these social systems (Bonnot & Krauth-Gruber, 2016; Friesen et al., 2019), it is predicted that there should also be a direct association between the extent to which an individual perceives a threat to their social system(s), and the extent to which they perceive flaws within these systems. Within the context of the current study specifically, given that COVID threat taps into the various forms of threat typically suggested to elicit system justification (e.g., system dependence and inescapability), a negative association is

expected between feelings of COVID threat and perceptions of racial discrimination. More specifically, it is hypothesized that:

*Hypothesis 1:* Heightened feelings of threat associated with the repercussions of the COVID-19 pandemic are negatively associated with perceptions of racial discrimination towards Black Americans.

Next, as mentioned above, certain threatening experiences or “triggers” tend to elicit system justifying attitudes. These triggers are often events or conditions that result in the individual perceiving themselves as unable to escape their social systems or perceiving that they depend on these systems (Friesen et al., 2018; Proudfoot & Kay, 2014). The repercussions of the COVID-19 pandemic mirror these threats in several ways. For instance, the loss of employment experienced by millions of Americans has resulted in a form of system dependence as many individuals’ livelihoods now depend on government aided unemployment insurance or benefits. Additionally, the imposed restrictions on overseas and domestic travel in an attempt to reduce the spread of the pandemic has resulted in a form of system inescapability as Americans are unable to leave the United States, their immediate communities, or even their own homes (whether for work, vacation or relocation purposes). Given that the repercussions of the COVID pandemic include various threats that elicit system justification, it is hypothesized that:

*Hypothesis 2:* Heightened feelings of threat associated with the various repercussions of the COVID-19 pandemic (COVID threat) are positively associated with system justifying attitudes.

Additionally, as indicated above, system justification can include the legitimization, downplaying, or even the denial of flaws within one's social system (Proudfoot & Kay, 2014). Although the means of doing so differ, ultimately individuals that justify their social systems reduce their awareness of the faults or issues present within these system(s) to reduce feelings of psychological distress associated with living within these systems. For instance, individuals often justify their social systems and perceive them as more fair than they are when they perceive themselves as unable to escape from these systems (Proudfoot & Kay, 2014; Laurin, Shepherd & Kay, 2010), as believing that one is unable to escape an unfair or oppressive social system can be distressing. Given that the presence of racial discrimination would suggest that an individual is living in an oppressive social system in which individuals are treated unfairly based on skin colour, the following hypothesis was formulated:

*Hypothesis 3:* System justifying attitudes are negatively associated with perceptions of racial discrimination.

Finally, given that feelings of COVID related threat are expected to be positively associated with system justifying attitudes, and that system justifying attitudes are hypothesized to be negatively associated with perceptions of racial discrimination, the following mediated relationship was hypothesized between the variables:

*Hypothesis 4:* Heightened feelings of threat associated with the pandemic are indirectly associated with perceptions of racial discrimination through system justifying attitudes, such that heightened feelings of threat are associated

positively with system justifying attitudes which, in turn, are negatively associated with perceptions of racial discrimination.

### **Possible Moderating Role of Political Orientation**

As mentioned above, although system justification is often exacerbated by threats to one's social system, it is also linked to certain personality traits and attitudes (i.e., political orientation). More specifically, political orientation is associated with both system justification and perceptions of racial discrimination, such that political conservatives exhibit stronger system justification, and perceive less racial discrimination, than liberals (Jost & Hunyady, 2005; Jost, 2017). Furthermore, this disparity is heightened when social systems undergo various forms of social/political changes. That is, political conservatives have been found to be more averse to changes to their social system than liberals and, as a result, often react by attempting to justify the current social systems when experiencing such changes to a greater extent than liberals (see Jost & Hunyady, 2005; Jost, 2017). Given that the current COVID-19 pandemic has resulted in several changes within the United States (including mandatory face-covering by-laws, emergency stay at home orders/lockdowns, etc.) political conservatives are expected to be motivated to justify the system to a greater extent than are liberals.

Given the evidence provided above on the association between political orientation, system justification and racial discrimination, a moderating effect of political orientation (political conservatism vs liberalism) is expected. More specifically, given that conservatives perceive less racial discrimination, and justify their social systems to a greater extent than do liberals (Butz et. Al., 2017; Jost & Hunyady, 2005; Jost, 2017), the association between system justification, perceived racial discrimination, and COVID threat should be more pronounced for

conservatives than for liberals, as conservatives should be more motivated to justify their social systems than are liberals when their social systems are highly threatened by the pandemic.

Therefore, the following hypotheses were formulated:

*Hypothesis 5a:* The negative association between heightened COVID threat and perceptions of racial discrimination is more pronounced in conservatives than in liberals.

*Hypothesis 5b:* The positive association between heightened COVID threat and system justification is more pronounced in conservatives than in liberals.

*Hypothesis 5c:* The mediated relationship between COVID threat, system justification and perceptions of racial discrimination is moderated by an individual's political orientation, such that the indirect association between COVID threat and perceived racial discrimination is more pronounced in conservatives than in liberals.

A conceptual model depicting the hypothesized association between the primary variables is presented in Figure 1.

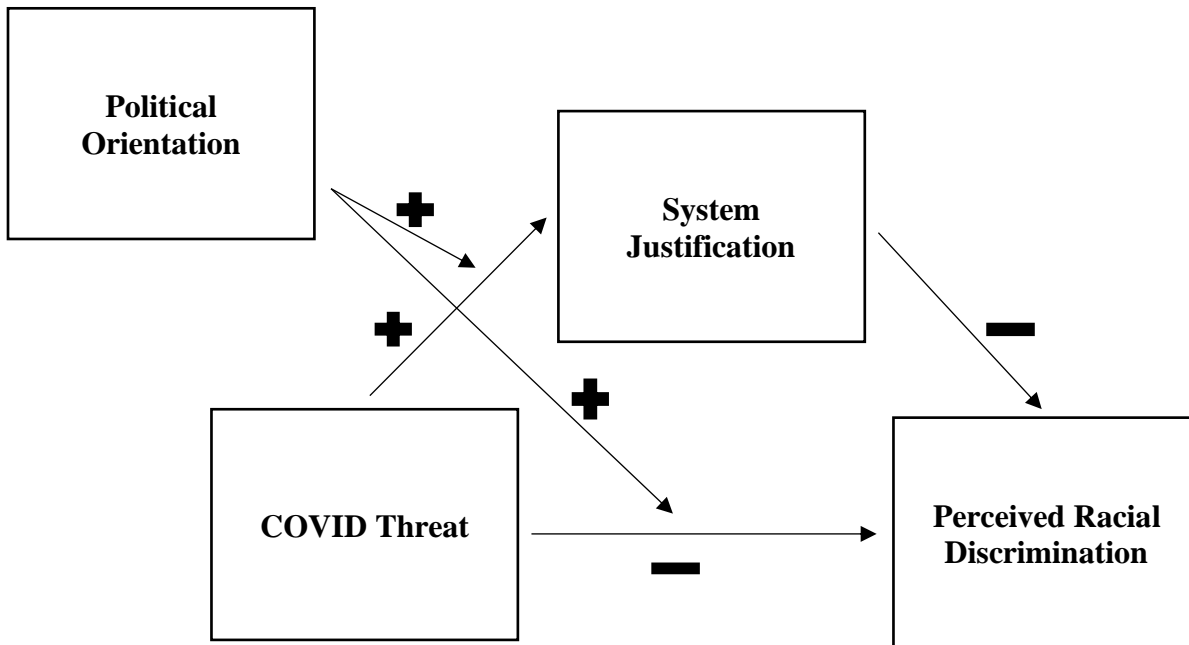


Figure 1. Model of the hypothesized indirect association between COVID threat and perceived racial discrimination, through system justification, with political orientation as the moderator.

## Method

### Participants

Five hundred and twenty-eight US citizens were recruited over Crowdfunder, an online data acquisition platform (Litman et al., 2017). 54.0% were male (285), 44.5% were female (235), .4% (2) identified themselves as “other,” and .4% (2) preferred not to disclose their sex. The majority of the participants, 75.6% (399), identified themselves as White, 10.4% (55) identified themselves as Black/African American, 5.5% (29) identified as Asian, 4.8% (25) identified as Hispanic, 1% (5) identified as Native American, while nine identified themselves as

“other,” and four preferred not to disclose their race. The average age was 38.95 years ( $SD=11.78$ ). Finally average income was \$40,000-\$49,000 and the median highest level of education attained was a bachelor’s degree.

After excluding 60 cases for failing attention checks, providing duplicate IP addresses, and taking an extremely long time to complete the study, 468 participants were left with usable data. Furthermore, included within the 60 cases that were excluded were participants that indicated that they would prefer not to disclose their sex or race, or that identified as “other” for these demographic questions. Doing so allowed for dichotomizing participants into majority or (visible) minority status so that it would be possible to examine how minority vs. majority race and sex (men vs. women) status influence the mediator and outcome variables.<sup>2</sup> Finally, included within the 60 cases that were excluded were participants that did not provide their highest education attained or income as information on these demographics was required to compute the socioeconomic status variable and use it as a covariate. Analyses were later also conducted including participants that were originally excluded for identifying as “other” or preferring not to disclose their sex/race, or for preferring not to disclose their education/income. The results were identical. Of the final sample 55.6% identified as male, 77.4% identified as white, the average age was 39.11 ( $SD=11.72$ ), the average income was \$40,000-\$49,000, and the median highest education attained was a Bachelor’s degree.

## **Procedures and Measures**

Participants were invited to complete the survey study online and were told that the research examines various experiences, perceptions, and beliefs that they may have held over the

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<sup>2</sup> “Minorities”, as per the dictionary definition of the term, can refer to individuals that a) comprise a numerical minority of a population, or b) are seen as different from, or as though they have less status/power than, that of dominant social groups (i.e., Whites/males). In the context of the current study, “minorities” refer to individuals that are seen as different from, or less than in power/status to, dominant social groups in the US.

course of the COVID-19 pandemic.<sup>3</sup> More specifically, participants were told that the research would be assessing any feelings of threat they may have experience associated with the pandemic and its repercussions, the extent to which they perceived racial discrimination, and what they thought about their country:

### ***Feelings of COVID related threat***

Feelings of threat associated with the COVID-19 pandemic were examined using an author-developed 5-item measure. Briefly, feelings of COVID related threat refer to the extent to which participants believe that the COVID-19 pandemic threatens various aspects of their lives, including their employment status, freedom to travel, and their ability to spend time with friends and family. For example, participants answered items such as *“Indicate the extent to which you feel that the pandemic threatens to restrict your freedom to travel”* on a 5-point Likert scale (1 = *Not threatened at all* to 5 = *Very threatened*). Each item was selected with the intention of tapping into a different threat argued to elicit system justifying behaviour. For instance, the item concerning unemployment status taps into system dependency as many unemployed Americans rely on government funded unemployment insurance. Similarly, the item concerning freedom to travel taps into system inescapability as not only short-term work or vacation travel was restricted, but so was emigration. The measure is coded such that higher scores indicate heightened feelings of threat associated with the pandemic. The measure had moderate reliability ( $\alpha = .76$ ).

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<sup>3</sup> The current research is part of a larger 2-part study examining both perceptions and memories of racial discrimination. Complications with Part 2 of the study resulted in my focusing solely on Part 1 in the thesis. Further information on Part 2 of the study, including how it was conducted, will be provided in a supplementary file at the end of the thesis document.



### ***Perceptions of racial discrimination***

Perceptions of racial discrimination were measured using three separate measures. The reason for using three separate measures was to assess both general perceptions of racial discrimination, as well as perceptions of specific types of racial discrimination. More specifically, one measure examined how frequently participants believed Black Americans had experienced any form of racial discrimination at all over the five months prior to the study, while the other two examined how frequently participants believed Black Americans had experienced, for instance, rude behaviour or unfair treatment due to their skin colour. The two measures assessing perceptions of specific types of racial discrimination (perceived general racism and perceived everyday discrimination) are self-report scales asking Black Americans to report on their own experiences. The referents were changed for the purpose of the study however, such that both Black and non-Black Americans were asked to report about the experiences of Black Americans. Finally, all three measures are coded such that higher scores indicate higher perceptions of racial discrimination.

**Perceived general racism.** The first measure used is a 5-item shortened version of the *General Racism* subscale developed by Smith (2012) ( $\alpha = .95$ ). This measure examines how often participants believed Black Americans had experienced various forms of racial discrimination over the five months prior to the study (e.g., *How often do you believe people have been treated rudely or unfairly because they're Black?*) on a 7-point Likert scale (1 = *Never* to 7 = *Every single day*).

**Perceived everyday discrimination.** The second measure adapted is the 9-item *Everyday Discrimination* scale developed by Williams, Yu, Jackson and Anderson (1997) ( $\alpha = .96$ ). This measure, much like the one above, examines how often participants believed Black

Americans had experienced various specific forms of racial discrimination over the five months prior to the study (e.g., *How often have Black individuals received poorer service than other people at restaurants or stores?*) on a 5-point scale (1 = *Always* to 5 = *Never*).

**Perceptions of discrimination thermometer.** Finally, the third measure used is an author-developed single-item *General Perceptions of Discrimination* thermometer, an 11-point thermometer scale measuring how often participants believed Black Americans had experienced discrimination in general over the five months prior to the study (1 = *Never* to 11 = *Always*). More specifically, participants were asked “Think back on the past 5 months, how often do you believe that Black Americans had experienced discrimination?”

### ***System justification***

System justification was examined using a measure adapted from previous research on system justifying attitudes. As described earlier, system justification refers to a set of attitudes and beliefs that people hold regarding the fairness of their social system(s). That is, in measuring system justification, I am examining the extent to which participants perceive the United States (including its various laws and regulations) to be fair and to treat all Americans equally. The scale used to examine system justification is the *General System Justification* scale developed by Kay and Jost (2003). The *General System Justification* scale is an 8-item measure examining the extent to which participants agree with statements about the American social system such as “*In general, you find society to be fair*” and “*Everyone has a fair shot at wealth and happiness*” (1 = *Completely disagree* to 7 = *Completely agree*). The measure is coded such that higher scores indicate stronger system justifying attitudes. The measure had high reliability ( $\alpha = .91$ ).

### ***Perceptions of mobility***

As further means of assessing perceived threat, a 5-item author-developed measure of perceived immobility was incorporated, assessing the extent to which participants agreed with statements such as “*Due to current social conditions, I expect it to be difficult to leave the United States.*” Participants recorded their answers on a 7-point Likert scale (1 = *Strongly disagree* to 7 = *Strongly agree*). This measure allowed for examining whether participants felt unable to leave their social system (the US) for work, vacation, or emigration. Furthermore, this measure allowed me to examine whether this perceived inescapability was associated positively with system justifying attitudes. The items were reverse coded such that higher scores indicate heightened perceptions of immobility. The measure had moderately high reliability ( $\alpha = .82$ ).

### ***Political orientation***

Political orientation was measured using a 3-item composite measure adapted from Carney et al. (2008). Participants indicated both their general political leanings (liberal vs conservative), as well as their political beliefs on two separate issues (cultural/social and economic) on a 7-point Likert scale (1 = *Extremely liberal* to 7 = *Extremely conservative*). The measure is coded such that higher scores indicate that participants identify as political conservatives. The measure had high reliability ( $\alpha = .95$ ).

### **Control variables**

#### ***Perceptions of Police Fairness***

Given that system justification involves a tendency to perceive a social system as less flawed, or as fairer than it is, one way that system justification may be exhibited is by the insistence that certain aspects of the system (such as authority figures that represent the social system) are fair—even when evidence suggests otherwise. For instance, motivation to justify the system should be positively correlated with perceptions of the police (authorities that serve as

representatives of the US social system) as fair and unbiased, despite evidence suggesting disproportionate unfair treatment and police brutality towards minorities (Holmes, 2000). Furthermore, this suggests that perceiving the police as fair should be negatively associated with perceptions of racial discrimination. Therefore, perceptions of police fairness were included, assessed using a shortened 3-item version of Nadal and Davidoff's 12-item *Perceptions of Police Scale (POPS)*; Nadal & Davidoff, 2015), as a control variable to show that COVID threat is associated with both system justification and perceptions of racial discrimination above and beyond its association with perceptions of police fairness. Participants were asked to indicate the extent to which they agree (1 = *Strongly agree* to 5 = *Strongly disagree*), with items such as “*Police officers do not treat all people fairly*” and “*Police officers are unbiased.*” The measure was coded such that higher scores indicate perceptions of the police as fair and unbiased. The measure had a high reliability ( $\alpha = .89$ ). As an important note, data on the POP scale for the current study was not normally distributed, indicating a moderate negative skew. For this reason, the variable was transformed using a square root transformation (statistics.laerd.com, 2013).

### ***Socioeconomic Status***

SES was included as a control variable given prior research findings suggesting that there is a link between SES and system justification (Brandt, 2013; Li et al., 2020). Although the findings are mixed, prior research suggests that socioeconomic status does influence whether people perceive their social systems as fair or not. For instance, research by Brown-Iannuzzi et al. (2015) and Vargas-Salfate et al. (2018) suggests that low SES individuals justify their social systems to a larger extent than do higher SES individuals. Higher SES individuals, in turn, are found to be more critical of these same social systems than their lower SES counterparts. Other

research suggests the opposite, that higher SES individuals are motivated to perceive their social systems as fair as doing so affords them to keep their higher social status (Carciata, 2017).

An index of socioeconomic status was created by standardizing and then averaging highest achieved education and income with higher education and income reflecting higher SES (American Psychological Association, 2017).

### ***Social Desirability***

Social desirability was assessed using the 9-item shortened version of the *Marlowe-Crown Social Desirability* scale ( $\alpha = .81$ ) (Strahan & Gerbasi, 1972). Participants had indicated the extent to which they agreed with such statements as “*I’m always willing to admit when I make a mistake*” and “*I have never deliberately said something that hurt someone’s feelings,*” on a 7-point Likert scale (1 = *Strongly disagree* to 7 = *Strongly agree*). A measure of social desirability motivation was included as the study assesses various perceptions, attitudes, and traits on which participants may seek to appear socially acceptable. For instance, participants may report that they perceive more racial discrimination than they do, to appear more “progressive.” The measure was coded such that higher scores indicate stronger motivation to appear socially desirable.

### ***Race and Sex***

Finally, race (White vs. non-White) and sex (men vs. women) are included as covariates, given the link identified between minority status and system justification (Jost et al., 2004). Again, as mentioned earlier, minority status in the context of the current study refers to individuals that are seen as different from, or as though they have less status/power than, dominant social groups. Given that non-White Americans and women were historically treated as less than equal to White Americans and men in terms of both power and status, and that they

were subsequently given less opportunities than were White Americans and men in various political, organizational, and social institutions, they are identified as “minorities” in the current study.

Although one may expect minorities to be more critical of their social systems than majority citizens—given their experiences with unfair, and at times discriminatory, treatment—research suggests that this is not entirely true. Research instead suggests that minorities may justify their social systems just as much as (if not more than) majority citizens (Jost et al., 2004), perhaps given the palliative functions of system justification. That is, Jost et al. (2004) found in their meta-analysis, reviewing over 10 years of research on system justification, that minorities who are oppressed often exhibit the strongest forms of system justification, and often hold more favourable views of out-group members than that of in-group members. This is reminiscent of the findings discussed above regarding the relationship between socioeconomic status and system justification, in that lower SES individuals seem to justify their social systems more than do higher SES individuals.<sup>4</sup> Given this link between minority status and system justification, race and sex were included as covariates.

## **Results**

### **Overview of Analytic Procedures**

Three sets of analyses were conducted to test the above hypotheses. First multiple regression analyses were conducted to assess Hypotheses 1 through 3, controlling for the covariates mentioned in the methods section (race, sex, perceptions of police fairness, social

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<sup>4</sup> Factsheets presented online by the American Psychological Association (American Psychological Association, 2010; American Psychological Association, 2017) indicate that women and racial minorities experience lower socioeconomic status than do White Americans and men, further suggesting a link between minority status and system justification.

desirability, and socio-economic status). Next, a mediation analysis was conducted using Hayes' Process Macro Model 4 to examine Hypothesis 4, the indirect effect between COVID threat and perceived racial discrimination through system justification. Finally, a moderated-mediation analysis was conducted using Hayes' Process Macro Model 8 to examine Hypotheses 5a to 5c. Finally, it is important to note that, given that the three measures of racial discrimination (the General Racism scale, Everyday Discrimination scale, and Perceptions of Discrimination thermometer) were examined separately, each analysis was run three separate times, once for each measure.

### **Descriptive Statistics**

Zero-order correlations were examined between all of the variables included in the study (see Table 1). Overall, the results suggest significant correlations between all four of the primary variables (COVID threat, system justification, perceived racial discrimination, and political orientation), although the direction of some of the associations are contrary to the hypotheses. More specifically, COVID threat is positively associated with perceived general racism ( $r = .33$ ,  $p < .001$ ), perceived everyday discrimination ( $r = .18$ ,  $p < .001$ ), and perceptions of discrimination thermometer ( $r = .30$ ,  $p < .001$ ), and negatively correlated with system justification ( $r = -.23$ ,  $p < .001$ ), opposite to the hypotheses. Finally, it is important to note that although the strength of the correlation between general perceptions of racial discrimination and perceived general racism ( $r = .76$ ,  $p < .001$ ) (two of the three discrimination measures) could suggest combining the items into a single composite score, one measures general perceptions of racial discrimination while the other measures perceptions of various specific forms of racial discrimination. For this reason, the two scales were kept separate.

Table 1

*Descriptive Statistics and Intercorrelations*

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. COVID Threat	3.34	.90	<b>(.76)</b>											
2. System Justification	3.64	1.36	-.23**	<b>(.91)</b>										
3. General Racism	3.83	1.61	.33**	-.49**	<b>(.95)</b>									
4. Everyday Discrimination	3.17	.91	.18**	-.46**	.40**	<b>(.96)</b>								
5. PDT	5.91	2.88	.30**	-.47**	.76**	.48**								
6. Perceptions of Mobility	4.62	1.33	.21**	-.35**	.19**	.21**	.15**	<b>(.82)</b>						
7. Political Orientation	3.49	1.77	-.22**	.58**	-.50**	-.38**	-.54**	-.22**	<b>(.95)</b>					
8. Social Desirability	4.17	1.07	-.10*	.13**	-.06	-.02	-.004	-.18**	.07	<b>(.81)</b>				
9. PoP	1.5	.34	-.26**	.66**	-.56**	-.48**	-.57**	-.29**	.57**	.12*	<b>(.89)</b>			
10. SES	.006	.84	-.03	.15**	.05	.06	.07	-.09	.10*	.01	.07			
11. Race			.09	-.05	.04	.02	.07	-.08	.03	.04	-.05	.06		
12. Sex			.09	-.08	.09	.11*	.08	.07	-.01	-.03	-.06	-.03	-.09	

Note.  $N = 468$ . Cronbach's alphas are provided on the diagonal and bolded. PDT = Perceived Discrimination Thermometer. POPS = Perceptions of Police. The data on PoP was not normally distributed and so a square root transformation was run on the variable. \* $p < .05$ , \*\* $p < .001$ . SES = Average of standardized income and highest education achieved.

## Main Analyses

### Testing Hypotheses 1 Through 3

**Hypothesis 1.** Hypothesis 1 predicted that COVID threat was negatively associated with perceptions of racial discrimination. To examine this hypothesis, a hierarchical multiple regression analysis was conducted with the control variables (sex, race, police perceptions, socioeconomic status, and social desirability) added in step 1 of the model while COVID threat was added in step 2.

Results indicate that the first step of the model predicted each of the three measures of perceive racial discrimination significantly. More specifically, two of the control variables were significantly associated with each measure of perceived racial discrimination. Perceptions of the police as fair were significantly, negatively associated with each measure, while higher socioeconomic status was significantly, positively associated with each of the measures.



Additionally, sex was positively associated with perceived everyday discrimination, such that women perceived more discrimination than men.

More importantly, COVID threat significantly added to the variance explained for two of the three measures. However, opposite to the hypothesis, COVID threat was positively associated with perceived racial discrimination. More specifically, COVID threat added significantly to the variance explained in perceived general racism ( $\beta = .20, p < .001$ ) and the perceptions of discrimination thermometer ( $\beta = .17, p < .001$ ), but not perceived everyday discrimination ( $\beta = .06, p = .16$ ), (see Table 2 for the results of the regression analyses on perceived general racism). For the results of the regression analyses on perceived everyday discrimination and general perceptions of racial discrimination, please see Table A1 and Table A2 respectively in Appendix A. Therefore, the results do not support Hypothesis 1.

Table 2  
Regression Analysis Examining the Association Between COVID Threat and Perceived General Racism.

Predictor	Perceived General Racism							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% CI
Step 1								
(Constant)				7.43**	.45		16.68	[6.56, 8.30]
PoP				-2.67**	.18	-.57	-14.63	[-3.03, -2.31]
Social Desirability				.01	.06	.01	.19	[-.10, .13]
SES				.19*	.07	.09	2.54	[.04, .33]
Sex				.19	.13	.06	1.59	[-.05, .44]
Race				.06	.14	.02	.42	[-.21, .33]
	.33	.33	45.14**					
Step 2								
(Constant)				5.94**	.52		11.43	[4.92, 6.96]
PoP				-2.44**	.18	-.52	-13.36	[-2.81, -2.09]
Social Desirability				.04	.06	.02	.62	[-.08, .15]
SES				.19	.07	.09	2.64	[.05, .33]
Sex				.14	.12	.04	1.15	[-.09, .38]
Race				-.01	.14	-.001	-.03	[-.27, .26]
COVID Threat				.36**	.07	.20	5.20	[.23, .49]
	.36	.04	44.26**					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES= Average of standardized income and highest education achieved.

**Hypothesis 2.** Hypothesis 2 predicted that a positive association between COVID threat and system justifying attitudes. To test the hypothesis, a hierarchical multiple regression analysis was conducted using system justification as the outcome variable. The control variables (sex, race, police perceptions, socioeconomic status, and social desirability) were all added in step 1 while COVID threat was added in step 2.

Results indicate that the first step of the model significantly predicted system justifying attitudes. More specifically, perceptions of the police as fair were significantly, positively associated with system justifying attitudes, as was socioeconomic status. That is, higher socioeconomic status was associated with stronger system justification. More importantly, contrary to the hypothesis, COVID threat was non-significantly associated with system justifying attitudes ( $\beta = -.06, p = .12$ ) (see Table 3). Given that the results suggest a non-significant association between COVID threat and system justification, Hypothesis 2 was not supported.

Table 3

Regression Analysis Examining the Association Between COVID Threat and System Justification.

Predictor	System Justification							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% CI
Step 1								
(Constant)				-.15	.34		-.45	[-.82, .52]
PoP				2.54**	.14	.64	18.14	[2.26, 2.81]
Social Desirability				.07	.04	.06	1.57	[-.02, .15]
SES				.17*	.06	.10	2.92	[.05, .28]
Sex				-.12	.09	-.04	-1.22	[-.31, .07]
Race				-.11	.11	-.04	-1.02	[-.32, .10]
	.44	.44	73.91**					
Step 2								
(Constant)				.19	.41		.48	[-.61, .99]
PoP				2.49**	.14	.62	17.27	[2.20, 2.77]
Social Desirability				.06	.04	.05	1.44	[-.02, .15]
SES				.17*	.06	.10	2.92	[.05, .28]
Sex				-.10	.09	-.04	-1.08	[-.29, .09]
Race				-.09	.11	-.03	-.88	[-.30, .12]
COVID Threat				-.09	.06	-.06	-1.55	[-.19, .02]
	.45	.003	62.18					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES= Average of standardized income and highest education achieved.

**Hypothesis 3.** Hypothesis 3 predicted that a negative association exists between system justification and perceptions of racial discrimination. To test this hypothesis, a hierarchical multiple regression analysis was conducted using the three separate measures of perceived racial discrimination as the outcome variable(s). The control variables (sex, race, police perceptions, socioeconomic status, and social desirability) were all added in step 1 while system justification was added in step 2.

Results indicate that the first step of the model significantly predicted each of the three measures. More specifically, two of the control variables were significantly associated with each measure of perceived racial discrimination. Perceptions of the police as fair were significantly, negatively associated with each measure, while higher socioeconomic status was significantly, positively associated with each of the three measures. Additionally, sex was positively associated

with perceived everyday discrimination, such that women perceived more discrimination than men.

More importantly, system justification added significantly to the variance explained in each model. That is, system justification significantly added to the variance explained in perceived general racism ( $\beta = -.25, p < .001$ ), perceived everyday discrimination ( $\beta = -.28, p < .001$ ), and to general perceptions of racial discrimination ( $\beta = -.18, p < .001$ ) (see Table 4 for the results of the regression analyses on perceived general racism). For the results of the regression analyses on perceived everyday discrimination and general perceptions of racial discrimination, please see Table B1 and Table B2 respectively in Appendix B. Given that system justification was negatively associated with the three measures of perceived discrimination, Hypothesis 3 was supported.

Table 4  
Regression Analysis Examining the Association Between System Justification and Perceived General Racism.

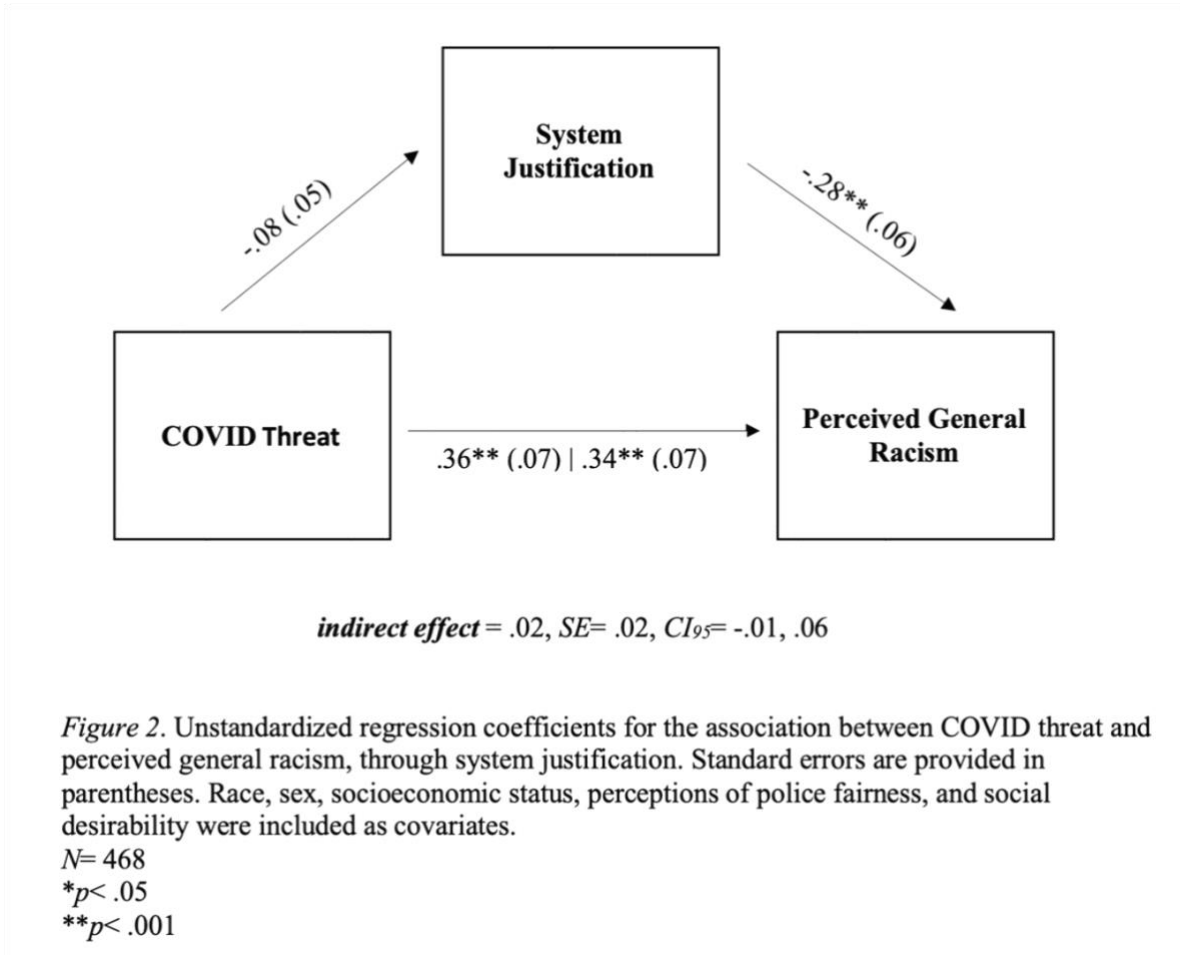
Predictor	Perceived General Racism							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% CI
Step 1								
(Constant)				7.43**	.45		16.68	[6.56, 8.30]
PoP				-2.67**	.18	-.57	-14.63	[-3.03, -2.31]
Social Desirability				.01	.06	.01	.19	[-.10, .13]
SES				.19*	.07	.09	2.54	[.04, .33]
Sex				0.19	.13	.06	1.59	[-.05, .44]
Race				0.06	.14	.02	.42	[-.21, .33]
	.33	.33	45.14**					
Step 2								
(Constant)				7.39**	.44		16.99	[6.53, 8.24]
PoP				-1.92**	.23	-.41	-8.24	[-2.38, -1.46]
Social Desirability				.03	.06	.02	.56	[-.08, .14]
SES				.24*	.07	.12	3.25	[.09, .38]
Sex				.16	.12	.05	1.34	[-.08, .40]
Race				.03	.14	.01	.19	[-.24, .29]
<b>System Justification</b>				<b>-.29**</b>	<b>.06</b>	<b>-.25</b>	<b>-4.99</b>	<b>[-.41, -.18]</b>
	.36	.04	43.73**					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES = Average of standardized income and highest education achieved.

### *Testing Hypothesis 4*

**Hypothesis 4.** Hypothesis 4 stated that a mediated relationship exists between COVID threat, system justification and perceived racial discrimination. That is, it was hypothesized that heightened COVID threat is associated with heightened system justification which, in turn, is associated with the belief that Black Americans have experienced little to no racial discrimination over the five months prior to the study. To test this hypothesis, three separate analyses were conducted using Hayes' Process Macro Model 4 with COVID threat as the predictor variable, system justification as the mediator, and each of the perceived racial discrimination measures as the outcome variable(s).

The results indicate that, contrary to the hypothesis, COVID threat had a non-significant indirect association with perceived racial discrimination (see Figure 2 for the model depicting the indirect association between COVID threat and perceived general racism). Please refer to Appendix C for Figure C1 and Figure C2 depicting the indirect associations between COVID threat and perceived everyday discrimination, and COVID threat and general perceptions of racial discrimination, respectively. Given that the results suggest a non-significant indirect association between COVID threat, system justification and perceived racial discrimination, Hypothesis 4 was not supported.



**Testing Hypotheses 5a to 5c**

Hypotheses 5a through 5c were all assessed using Hayes Process Macro Model 8 for testing moderated mediation.

**Hypothesis 5a.** Hypothesis 5a predicted that participants’ political orientation (political conservatism vs liberalism) moderates the relationship between COVID threat and perceived racial discrimination such that the negative association is more pronounced in conservatives than in liberals. As hypothesized, political orientation significantly moderated the association between COVID threat and perceived general racism: *B* = .09, *p* = .01; perceived everyday discrimination: *B* = .04, *p* = .05; and perceived discrimination thermometer: *B* = .17, *p* = .006 (see Figure 3 for a

plot of the interaction effect on perceived general racism). Please refer to Appendix D for Figure D1 and Figure D2 depicting the interaction plots for perceived everyday discrimination and general perceptions of racial discrimination, respectively. Although political orientation significantly moderated the effect that COVID threat had on perceived racial discrimination, the findings were opposite to the hypotheses. That is, although political conservatives initially perceived less racial discrimination than liberals, and although the association was stronger for conservatives than for liberals, heightened COVID threat was positively associated (as opposed to negatively) with perceived racial discrimination. However, this positive association was only significant for political conservatives. Thus, conservatives start to perceive racial discrimination to a similar extent as liberals the more they feel threatened by the pandemic. Therefore, Hypothesis 5a was not supported.

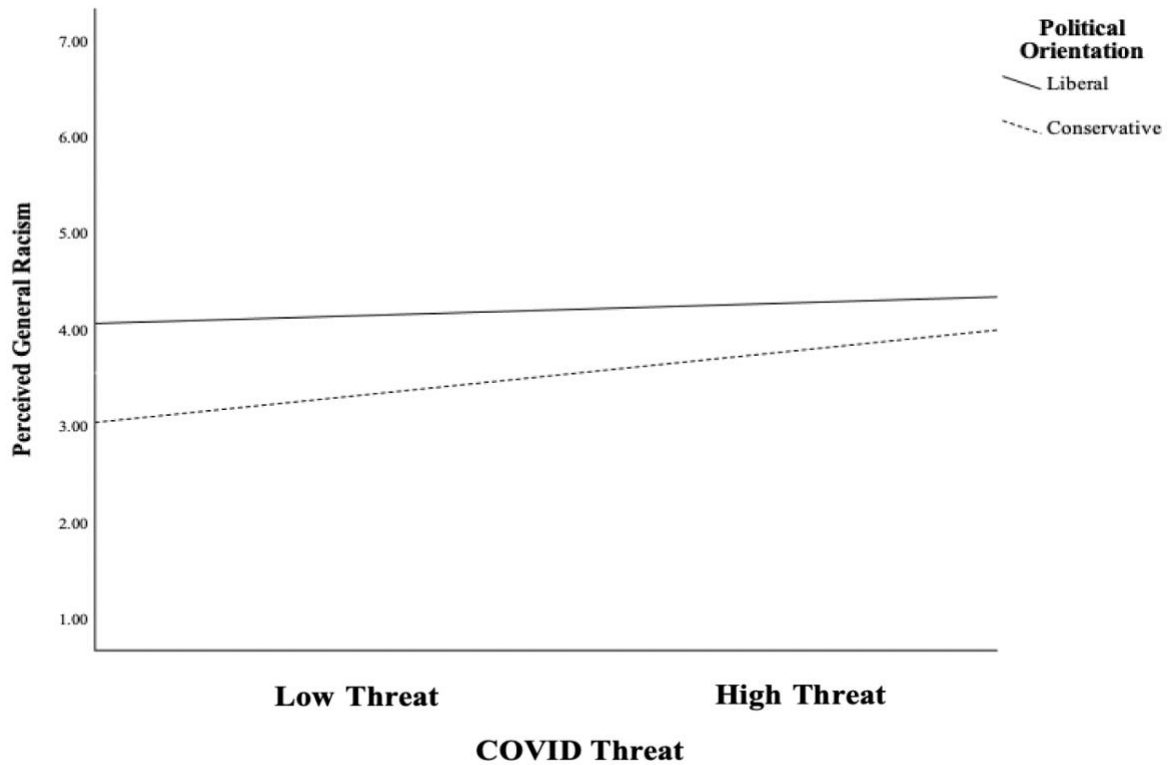


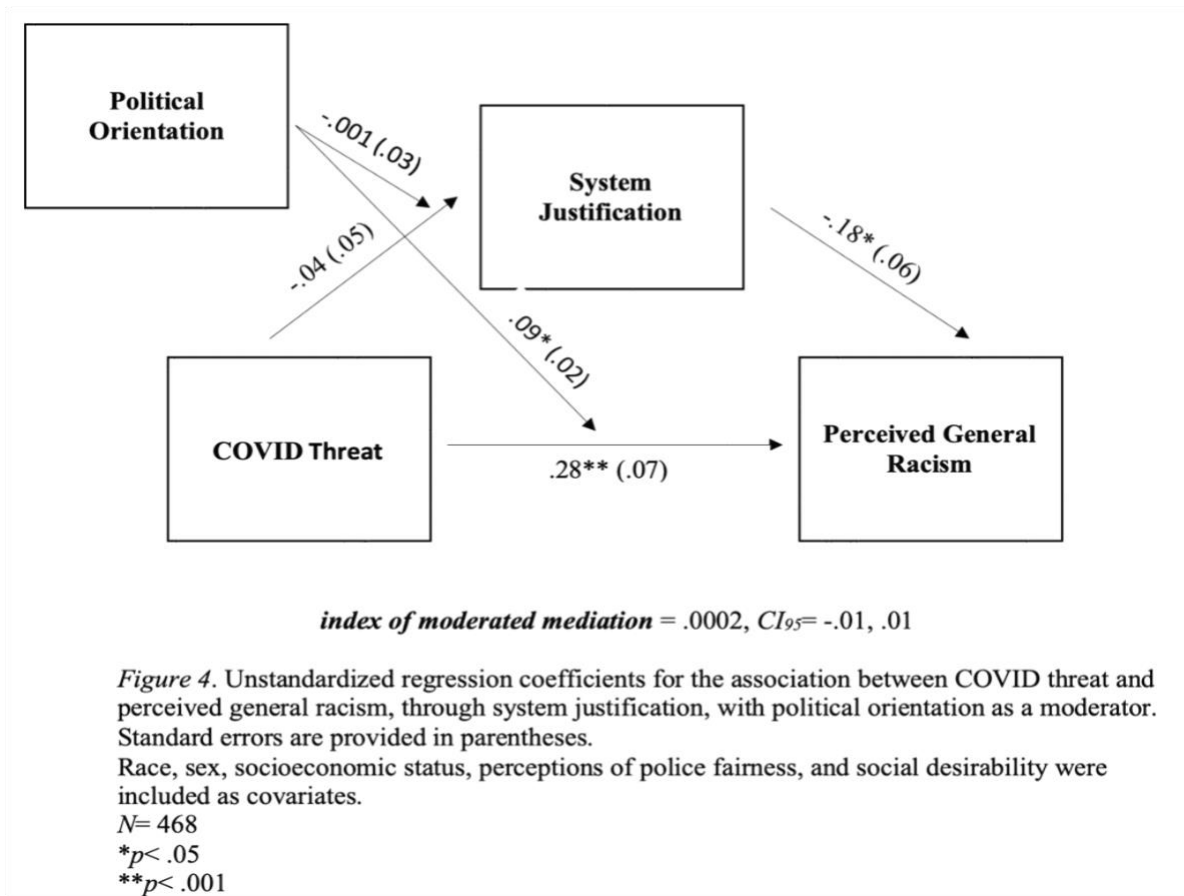
Figure 3 . Plot of COVID threat x political orientation interaction effect on perceived general racism.

**Hypothesis 5b.** Hypothesis 5b predicted that participants’ political orientation (political conservatism vs liberalism) moderates the relationship between COVID threat and system justification such that the positive association is more pronounced in conservatives than in liberals. Contrary to the hypothesis, political orientation did not significantly moderate the association between COVID threat and system justification ( $B=-.001$ ,  $SE= .03$ , 95% CI [-.06, .05],  $p= .97$ ). Therefore, Hypothesis 5b was not supported.

**Hypothesis 5c.** Hypothesis 5c predicted that the mediated relationship between COVID threat and perceived racial discrimination, through system justification, is moderated by political orientation, such that the indirect association between COVID threat and perceived racial discrimination is more pronounced in political conservatives than in liberals. Given that the



indirect effect (Hypothesis 4) was not significant, moderated mediation is not possible. Indeed, political orientation showed no moderating effect on the indirect association between COVID threat and perceived racial discrimination (see Figure 4 for a model depicting the moderated mediation between COVID threat and perceived general racism). Please refer to Appendix E for Figure E1 and Figure E2 depicting the moderated mediation models of perceived everyday discrimination and general perceptions of racial discrimination, respectively. Given the non-significant indirect associations, Hypothesis 5c was not supported.



### Additional Analyses

Further analysis of the data yielded several results that are worth mentioning. First, analyses indicated a positive correlation between perceptions of police fairness and system justification ( $r = .66, p < .001$ ), such that perceiving the police as fair was associated with heightened belief that the American social system is fair. Furthermore, a negative correlation was found between perceptions of police fairness and perceived general racism ( $r = -.56, p < .001$ ), perceived everyday discrimination ( $r = -.48, p < .001$ ), and perceptions of discrimination thermometer ( $r = -.57, p < .001$ ), such that perceiving the police as fair was associated with a lack of perceived racial discrimination against Black Americans. These results support the expected associations between police perceptions, system justification, and perceived racial discrimination described in the methods section above.

Second, analysis of the associations between race, sex, and the remaining variables yielded unexpected results. Race was not significantly correlated with any of the other variables,  $p$ 's  $> .05$ . SES, on the other hand, was only significantly correlated with system justification ( $r = .15, p < .001$ ), and political orientation ( $r = .10, p < .05$ ), indicating that higher socioeconomic status is associated with heightened system justifying attitudes and political conservatism, albeit weakly.

Finally, although prior research indicates that political conservatives are more averse to, and threatened by, changes to their social system than are liberals, there was a negative correlation between political orientation and COVID threat ( $r = -.22, p < .001$ ), such that conservatives were less threatened by the pandemic than were liberals. This negative correlation was found despite the social changes that the pandemic incited both in North America specifically, and globally (i.e., mask bylaws, social distancing and stay-at-home orders/lockdowns).

## Discussion

Integrating prior research on system justification, political orientation, and racial discrimination, I examined whether the current COVID-19 pandemic is indirectly associated with perceptions of racial discrimination. More specifically, I examined whether feelings of threat associated with the various repercussions of the pandemic (e.g., travel restrictions) were negatively associated with perceptions of racial discrimination against Black Americans, through a positive association with system justifying attitudes. A correlational survey study only partially supported the above hypotheses. Although COVID threat was significantly associated with perceptions of racial discrimination, the positive direction of this association was opposite to what was hypothesized. Additionally, contrary to the hypotheses, COVID threat was only significantly associated with system justifying attitudes when not accounting for the control variables, albeit the association was negative as opposed to positive. However, system justifying attitudes were significantly, negatively associated with perceived racial discrimination, as predicted.

Additionally, the hypothesized mediating effect of system justification on the association between COVID threat and perceived discrimination was not significant, nor was the moderating effect of political orientation on the mediated relationship between COVID threat, system justification, and perceived discrimination. However, political orientation significantly moderated the direct association between COVID threat and perceived discrimination—such that the association between the variables was stronger for conservatives than for liberals. Therefore, although conservatives' perceptions of discrimination were more strongly associated with COVID threat than were liberals', as expected, conservatives' perceptions of discrimination

increased (rather than decreased) more steeply than did liberals' the more that they felt threatened, thereby not entirely supporting the hypotheses.

Overall, the results suggest that heightened feelings of COVID threat are associated with perceptions of more frequent racial discrimination against Black Americans, and that being politically conservative enhances the strength of this association. These results can be interpreted in several ways and provide a number of theoretical implications. The interpretations and implications of the study are discussed next.

## **Theoretical Implications**

### ***A Lack of Support for System Justification Theory***

**An Increase in System Vigilance and Criticism?** The current study was designed to contribute to research on system justification by examining the construct as both a predictor, and a mediating, variable. In doing so, the research provides novel information on the outcomes of system justifying attitudes, as well as the determinants of system justifying attitudes. However, the research instead provided a lack of support for System Justification Theory.

As argued within the system justification literature, system justifying attitudes act as psychological defence mechanisms intended to reduce any discomfort or anxiety resulting from threat(s) to one's social system(s). However, some researchers suggest the opposite, arguing instead that people are motivated to become more aware of flaws within their social systems when experiencing psychological distress (Miedema et al., 2006; Van den Bos et al., 2008). Indeed, these researchers suggest the existence of a human alarm system wherein alarming, or threatening, experiences can result in increased system vigilance and criticism, especially towards unfairness within one's social system(s).

The results of the current study seem to support the Human Alarm System Theory (HAS) as opposed to System Justification Theory, given a) the lack of a significant association between COVID threat and system justification, and b) that heightened COVID threat was associated positively with perceptions of racial discrimination against Black Americans. That is, the results suggest that the feelings of threat associated with the COVID-19 pandemic may elicit an alarm within the individual, motivating them to become more critical of the systemic inequality and racial discrimination occurring around them.

**Does COVID Threat Actually Assess Uncertainty?** An alternative interpretation of the results is that what was initially believed to be an examination of feelings of threat is in fact an examination of feelings of uncertainty. Research on Uncertainty Management Theory (Lind & Van den Bos, 2002) suggests that individuals desire to feel certain about themselves and their social environments, as feelings of uncertainty can result in psychological distress (Van den Bos & Lind, 2002). One way that the researchers argue that people protect themselves from the distress/threat of uncertainty is by becoming highly vigilant and critical of the aspects of themselves or their social environments that they can feel more certain about, such as the enactment of fairness and justice (Van den Bos, 2001; Van den Bos & Lind, 2002).

It may very well be that feelings of threat regarding system inescapability, employment status, and the ability to spend time with one's friends and family, associated with the COVID-19 pandemic, are in fact feelings of uncertainty. That is, heightened COVID threat may be associated with heightened perceptions of racial discrimination because heightened threat captures, for instance, stronger feelings of uncertainty regarding whether the individual will lose their job because of the pandemic. This may certainly be the case given, for example, the

increasing number of people either losing their jobs or experiencing difficulties in attaining employment since the beginning of the pandemic.

### ***Analyses of the Moderating Effect of Political Orientation***

As described above, results partially support prior research findings suggesting that political orientation moderates the relationship between perceived threats to one's social system(s) and perceptions of systemic flaws. Although COVID threat had a stronger association with perceived discrimination in conservatives than in liberals as predicted, the direction of the association was opposite to what was expected. That is, although heightened feelings of COVID threat were expected to be associated with a much steeper decline in perceived discrimination in political conservatives than in liberals, they were instead associated with a much steeper increase in perceived discrimination in conservatives. Therefore, political orientation does seem to moderate the association between feelings of COVID related threat and perceptions of racial discrimination against Black Americans, just not in the hypothesized direction.

These findings are interesting for several reasons. First, they suggest that political conservatives' perceptions of racial discrimination are more impacted by COVID threat than liberals, despite the results also suggesting a negative association between political orientation and COVID threat (i.e., conservatives reported feeling less threatened by the pandemic than liberals). That conservatives are less threatened by the pandemic than liberals does not support previous research suggesting that conservatives are more likely than liberals to justify their social systems when threatened, given that the pandemic has resulted in a number of changes to the American social system (e.g., social distancing and mask bylaws), repercussions that should elicit stronger feelings of threat in conservatives given their aversion to social change. However,

that political conservatives' perceptions of racial discrimination are more heavily impacted by the threat than are the liberals' may be considered as evidence in support of previous research.

Second, these findings indicate that conservatives perceive more racial discrimination the more that they feel threatened by the pandemic, to a greater extent than liberals. This finding may be taken to provide a lack of support for the Human Alarm System theory described above. As mentioned above, proponents of the Human Alarm System theory argue that feelings of threat result in system vigilance and criticism, whereby individuals pay more attention to flaws within their social systems, including flaws regarding fairness and justice enactment, the more that they feel threatened or alarmed. Given that conservatives reported experiencing less threat than liberals, HAS theory would suggest that COVID threat should be more strongly associated with perceived discrimination in liberals as opposed to conservatives, yet the results indicate the opposite. Therefore, analysis of the moderating effect of political orientation supports neither System Justification nor Human Alarm System theories.

### *Discussing Additional Findings*

**Correlations with Perceptions of Police Fairness.** As expected, perceptions of police fairness were significantly correlated with both system justification and perceptions of racial discrimination. Supporting the predictions outlined above, perceiving the police as fair was positively associated with system justifying attitudes and negatively associated with perceptions of racial discrimination. That is, perceiving the police as fair and unbiased was associated with a) a belief that the United States social system, along its various laws and regulations, is fair, and b) the belief that Black Americans had experienced relatively little racial discrimination over the five months prior to the study. This finding supports the argument made above that perceptions of police fairness, particularly during the Black Lives Matter movement, could act as indicators

of system justifying attitudes. Given the correlational nature of the study, however, additional research is necessary before causal inferencing is possible.

Police perceptions were also significantly associated with both COVID threat and political orientation. More precisely, perceptions of police fairness were positively associated with political orientation, such that conservatives perceived the police as fairer than did liberals, and were negatively associated with COVID threat. That political conservatives perceived the police as fairer than did liberals was to be expected. As mentioned above, conservatives typically perceive their social systems as fair and are averse to criticism of, or attempts to change, these systems. Given that the police serve as authorities that represent, in part, the US social system (or at least its policing and criminal justice systems), political conservatives should be motivated to perceive the police as fair, and to do so to a higher extent than do liberals. Additionally, political conservatism is suggested to be more positively associated with right wing authoritarianism and social dominance orientation, attitudes linked with strong respect for social authorities such as the police (Crowson, Thoma & Hestevold, 2005; Wilson & Sibley, 2013), than is liberalism.

That perceiving the police as fair was negatively associated with COVID threat is opposite to what was expected, but supported the primary results discussed above. Again, given the strong positive association between system justifying attitudes and police perceptions, the negative association between police perceptions and COVID threat suggests a lack of support for System Justification Theory and instead supports the Human Alarm System theory. Indeed, heightened threat associated with the pandemic was associated with stronger perceptions of the police as unfair and biased, suggesting increased criticism and vigilance of the police and their actions.



**Correlations with SES and Race.** Although race and SES are suggested to be significantly associated with each other, such that racial minorities predominantly report having lower SES (Noel, 2018), the results of the current research suggested no significant association between the variables. For this reason, given that both SES and race were suggested by prior research to be associated with each of the remaining variables, including system justification and perceived discrimination, I examined how race and SES were associated with each of the remaining variables separately. These additional analyses yielded some interesting results.

One interesting finding is the lack of significant association between any of the included variables, including system justification and perceptions of racial discrimination, and race. Indeed, although race was negatively associated with system justification and positively with perceptions of racial discrimination, these associations were not significant. This may have been the result of a predominantly white study sample, however. Given that only one quarter of the sample identified as non-White, and that only half of the non-White sample identified as Black, correlations between the variables may have been attenuated.

As mentioned above, prior research has identified that lower status individuals, ironically, often justify their social systems to a higher extent than do higher status individuals. Given the role that race plays in social and socioeconomic status (U.S. Census Bureau, 2009), one might expect race to have a more significant association with system justification, such that non-White Americans would justify the system more than White Americans. This was not the case, however, as race was neither positively nor significantly associated with system justification. Nor was race significantly associated with perceptions of police fairness, a measure positively associated with system justification, and negatively with perceived discrimination (as described above).

An association between race and perceived racial discrimination, although expected, is more complex to predict. On the one hand, one might expect non-White Americans to perceive more discrimination than White Americans, given that they are more likely to experience such discrimination. On the other hand, most racial minorities (those excluding Asian Americans) report earning a lower average income and achieving a lower level of education than white-Americans (Noel, 2018), two variables used to measure socioeconomic status. Given this link between racial minority status and lower SES, and given that prior research indicates a tendency for individuals with lower SES to justify their social systems and perceive them as fair to a higher extent than do individuals with higher SES, non-White Americans might instead be expected to perceive less discrimination than White Americans. However, neither of these associations are found.

Finally, regarding SES, the only significant associations were with system justification and political orientation. Higher socio-economic status was not only associated with increased conservatism, but it was also associated with increased system justification, opposite to what was suggested by earlier research (i.e., that lower SES is associated with increased system justification). These associations, however, were weak. It should be noted, however, that a small number of researchers have identified a positive association between SES and system justification (Brandt, 2013; Caricati, 2017). These researchers argue that individuals with higher socioeconomic status are motivated to justify their social systems, perceiving them as more fair than do lower SES individuals, as doing so can legitimize and allow them to maintain their status/power. Therefore, the results of the current study support previous arguments that higher SES is associated with heightened system justification, not reduced.

### **Practical Implications**

That political conservatives' perceptions of racial discrimination are not only heightened when threatened by the repercussions of the COVID-19 pandemic, but that they are even more heightened than those of liberals, suggests a possible malleability in the awareness that conservatives have of the social inequalities, and potentially other flaws, in their social systems. These results, much like prior research on HAS theory—which suggests that feelings of threat/uncertainty increase vigilance of systemic inequality and/or other flaws—suggest the existence of potential benefits of threatening/anxiety-provoking social conditions. More specifically, these results suggest that it may be possible to make use of naturally elicited feelings of threat or anxiety to instill or enhance vigilance and system criticism in individuals that are often more likely to justify their social systems and their flaws.

### **Limitations and Future Research**

The study conducted was correlational and cross-sectional in nature, resulting in the first limitation. More specifically, no causal inferences can be made (i.e., it is not possible to conclude that one variable caused the other). The results of the study can only be used to argue that the feelings of threat associated with the COVID-19 pandemic are correlated with perceptions of racial discrimination, not that they cause these perceptions. Future research can address this issue by experimentally varying COVID related threat. For instance, researchers can vary the extent to which people feel unable to leave their country because of the pandemic by providing participants news articles intended to elicit feelings of system inescapability, and then examine perceived discrimination against racial minorities afterwards. Alternatively, a longitudinal study design can address this issue as well. More specifically, assessing or manipulating COVID threat at one time, and perceived discrimination at a later, can allow the researcher to be confident that a) COVID threat influences perceptions of racial discrimination instead of being merely

correlated with them, and b) that COVID threat temporally precedes perceived racial discrimination (i.e., that feelings of COVID related threat influence perceptions of racial discrimination, and not the other way around).

Another potential limitation of the study could be the construct validity of the measure of COVID related threat. Although the repercussions of the pandemic on employment status and physical health can be perceived as threatening, the repercussions on freedom to travel and the ability to spend time with one's friends and family may be merely perceived as inconveniences. As a result, the measure may be examining an unintended construct, perceptions of inconvenience. Alternatively, as mentioned above, the measure may instead be assessing feelings of uncertainty. Although the repercussions of the pandemic may indeed elicit feelings of threat or inconvenience, these feelings may instead be of uncertainty as individuals may not feel threatened but instead uncertain regarding whether and how their social lives and/or employment status will be affected by the pandemic. Regardless, the measure was constructed to assess feelings of threat suggested to elicit system justifying behaviours and attitudes. Given that the threats assessed in the measure (e.g., travel restrictions) were previously found to elicit such behaviour, the measure was deemed appropriate for the study.

A final limitation of the study is the predominantly white sample. Given that the study examined perceptions of racial discrimination against Black Americans, the lack of racial minority participants, particularly Black Americans, could have biased the results. Indeed, despite threat increasing perceptions of racial discrimination, average perceptions of racial discrimination against Black Americans were relatively low, despite the study being conducted during the Black Lives Matter movement. A replication of the current study with a more representative sample could address this issue.

## **Conclusion**

Do the repercussions of the current COVID-19 pandemic exert an influence on perceptions of fairness and discrimination within a North American social context? Drawing on System Justification theory, the current study was conducted with the purpose of examining whether feelings of threat associated with the repercussions of the COVID-19 pandemic decrease perceptions of racial discrimination against Black Americans. Although correlational, the current research provides evidence that COVID threat is indeed associated with perceptions of racial discrimination, with political orientation moderating this relationship. Opposite to the hypothesized relationship however, the results suggest that heightened feelings of COVID threat are associated with heightened perceptions of racial discrimination. The current research—by identifying a factor that is associated with, and potentially influences, perceptions of racial discrimination—can act as a foundation for future studies intended to a) identify means of eliminating racial discrimination, and b) identify the social repercussions of the COVID-19 pandemic.

## References

- American Psychological Association. (2010). *Fact sheet: Women and socioeconomic status*. <https://www.apa.org/pi/ses/resources/publications/women>
- American Psychological Association. (2017). *Ethnic and racial minorities & socioeconomic status*. <https://www.apa.org/pi/ses/resources/publications/minorities>
- American Psychological Association. (2017). *Education and socioeconomic status*. <https://www.apa.org/pi/ses/resources/publications/education>
- Arora, T., Grey, I., Östlundh, L., Lam, K. B. H., Omar, O. M., & Arnone, D. (2020). The prevalence of psychological consequences of COVID-19: A systematic review and meta-analysis of observational studies. *Journal of Health Psychology, 0*(0), 1-20. <https://doi.org/10.1177/1359105320966639>
- Bahamondes, J., Sibley, C. G., & Osborne, D. (2021). System justification and perceptions of group-based discrimination: Investigating the temporal order of the ideologically motivated minimization (or exaggeration) of discrimination across low- and high-status groups. *Social Psychological and Personality Science, 12*(4), 431–441. <https://doi.org/10.1177/1948550620929452>
- Balçetis, E. & Dunning, D. (2006). See what you want to see: Motivational influences on visual perception. *Journal of Personality and Social Psychology, 91*(4), 612-623.
- Barclay, L. J., Bashshur, M. R., & Fortin, M. (2017). Motivated cognition and fairness: Insights, integration, and creating a path forward. In *Journal of Applied Psychology, 102*(6), 867-889. <https://doi.org/10.1037/apl0000204>
- Berger, M., & Sarnyai, Z. (2015). “More than skin deep”: Stress neurobiology and mental health consequences of racial discrimination. *Stress, 18*(1), 1–10. <https://doi.org/10.3109/10253890.2014.989204>
- Bonnot, V. & Krauth-Grubber, S. (2016). System justifying behaviours: When feeling dependent on a system triggers gender stereotype-consistent academic performance. *European Journal of Social Psychology, 46*(6), 776-782.
- Bowins, B. (2021). Psychological defense mechanisms. *States and Processes for Mental Health, 64*(1), 23–40. <https://doi.org/10.1016/b978-0-323-85049-0.00003-9>
- Brandt, M. J. (2013). Do the disadvantaged legitimize the social system? A large-scale test of the status-legitimacy hypothesis. *Journal of Personality and Social Psychology, 104*(5), 765–785. <https://doi.org/10.1037/a0031751>
- Brown-Iannuzzi, J. L., Lundberg, K. B., Kay, A. C., & Payne, B. K. (2015). Subjective status shapes political preferences. *Psychological Science, 26*(1), 15–26.

<https://doi.org/10.1177/0956797614553947>

- Brown, T. N., Williams, D. R., Jackson, J. S., Neighbors, H. W., Torres, M., Sellers, S. L., & Brown, K. T. (2000). "Being black and feeling blue": The mental health consequences of racial discrimination. *Race and Society*, 2(2), 117–131. [https://doi.org/10.1016/S1090-9524\(00\)00010-3](https://doi.org/10.1016/S1090-9524(00)00010-3)
- Butz, S., Kieslich, P. J., & Bless, H. (2017). Why are conservatives happier than liberals? Comparing different explanations based on system justification, multiple group membership, and positive adjustment. *European Journal of Social Psychology*, 47(3), 362-372.
- Caricati, L. (2017). Testing the status-legitimacy hypothesis: A multilevel modeling approach to the perception of legitimacy in income distribution in 36 nations. *The Journal of Social Psychology*, 157, 532–540.
- Crowson, H. M., Thoma, S. J., & Hestevold, N. (2005). Is political conservatism synonymous with authoritarianism? *Journal of Social Psychology*, 145(5), 571–592. <https://doi.org/10.3200/SOCP.145.5.571-592>
- Echterhoff, G. H., Higgins, T. E., Kopietz, R., & Groll, S. (2008). How communication goals determine when audience tuning biases memory. *Journal of Experimental Psychology: General*, 137(1), 3-21.
- Feygina, I., Jost, J. T., & Goldsmith, R. E. (2010). System justification, the denial of global warming, and the possibility of "system-sanctioned change." *Personality and Social Psychology Bulletin*, 36(3), 326–338. <https://doi.org/10.1177/0146167209351435>
- Friesen, J. P., Laurin, K., Shepherd, S., Gaucher, D., & Kay, A. C. (2019). System justification: Experimental evidence, its contextual nature, and implications for social change. *British Journal of Social Psychology*, 58(2), 315–339. <https://doi.org/10.1111/bjso.12278>
- Hideg, I., & Wilson, A. E. (2020). History backfires: Reminders of past injustices against women undermine support for workplace policies promoting women. *Organizational Behavior and Human Decision Processes*, 156, 176-189. <https://doi.org/10.1016/j.obhdp.2019.10.001>
- Holmes, M.D. (2000). Minority threat and police brutality: Determinants of civil rights criminal complaints in U.S. municipalities. *Criminology*, 38(2), 342-368.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339-375.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25(6), 881-919.

- Jost, J. T. (2017). Working class conservatism: A system justification perspective. *Current Opinion in Psychology, 18*, 73–78. <https://doi.org/10.1016/j.copsyc.2017.08.020>
- Jost, J. T., Badaan, V., Goudarzi, S., Hoffarth, M., & Mogami, M. (2019). The future of system justification theory. In *British Journal of Social Psychology, 58*(2), 382-392. <https://doi.org/10.1111/bjso.12309>
- Jylha, K. M., & Akrami, N. (2015). Social dominance orientation and climate change denial: The role of dominance and system justification. *Personality and Individual Differences, 86*(2015), 108-111.
- Kaiser, C. R., Major, B., Jurcevic, I., Dover, T. L., Brady, L. M., & Shapiro, J. R. (2013). Presumed fair: Ironic effects of organizational diversity structures. *Journal of Personality and Social Psychology, 104*(3), 504-519. <https://doi.org/10.1037/a0030838>
- Kaiser, C. R., & Miller, C. T. (2001). Stop complaining! The social costs of making attributions to discrimination. *Personality and Social Psychology Bulletin, 27*(2), 254-263. <https://doi.org/10.1177/0146167201272010>
- Kay, A. C., Gaucher, D., Peach, J. M., Laurin, K., Friesen, J., Zanna, M. P., & Spencer, S. J. (2009). Inequality, discrimination, and the power of the status quo: Direct evidence for a motivation to see the way things are as the way they should be. *Journal of Personality and Social Psychology, 97*(3), 421-434. <https://doi.org/10.1037/a0015997>
- Koçak, O., Koçak, Ö. E., & Younis, M. Z. (2021). The psychological consequences of COVID-19 fear and the moderator effects of individuals' underlying illness and witnessing infected friends and family. *International Journal of Environmental Research and Public Health, 18*(4), 1–15. <https://doi.org/10.3390/ijerph18041836>
- Lateef, R., Alaggia, R., & Collin-Vézina, D. (2021). A scoping review on psychosocial consequences of pandemics on parents and children: Planning for today and the future. *Children and Youth Services Review, 125*(March), 1-11. <https://doi.org/10.1016/j.chilyouth.2021.106002>
- Laurent, A., Aubert, L., Chahraoui, K., Bioy, A., Mariage, A., Quenot, J. P., & Capellier, G. (2014). Error in intensive care: Psychological repercussions and defense mechanisms among health professionals. *Critical Care Medicine, 42*(11), 2370–2378. <https://doi.org/10.1097/CCM.0000000000000508>
- Li, W., Yang, Y., Wu, J., & Kou, Y. (2020). Testing the status-legitimacy hypothesis in China: Objective and subjective socioeconomic status divergently predict system justification. *Personality and Social Psychology Bulletin, 46*(7), 1044–1058. <https://doi.org/10.1177/0146167219893997>
- Lind, A. E. & Van den Bos, K. (2002). When fairness works: Toward a general theory of



- uncertainty management. *Research in Organizational Behaviour*, 24, 181-223.
- Liviatan, I. & Jost, J. T. (2011). Special issue: System justification theory motivated social cognition in the service of the status quo. *Social Cognition*, 29(3), 231-237.
- Lowery, B. S., Knowles, E. D., & Unzueta, M. M. (2007). Framing inequity safely: Whites' motivated perceptions of racial privilege. *Personality and Social Psychology Bulletin*, 33(9), 1237–1250. <https://doi.org/10.1177/0146167207303016>
- Maner, J. K., Kenrick, D. T., Backer, D. V., Robertson, T. E., Hofer, B., Neuberg, S. L., Delton, A. W., Butner, J., & Schaller, M. (2005). Functional projection: How fundamental social motives can bias interpersonal perception. *Journal of Personality and Social Psychology*, 88(1), 63-78. <https://doi.org/10.1037/0022-3514.88.1.63>
- Meneses, E., McKenney, M., & Elkbuli, A. (2020). Diversity and inclusion among US general surgery residency programs: Translating initiatives into action. *The American Surgeon*, 87(1), 166-167.
- Meyer, J. D. (2014). Race-based job discrimination, disparities in job control, and their joint effects on health. *American Journal of Industrial Medicine*, 57(5), 587–595. <https://doi.org/10.1002/ajim.22255>
- Miedemam, J., Van Den Bos, K., & Vermunt, R. (2006). The influence of self-threats on fairness judgments and affective measures. *Social Justice Research*, 19(2), 228–253. <https://doi.org/10.1007/s11211-006-0007-7>
- Noel, R., A. (2018). *Race, economics, and social status*. U.S. Bureau of Labour Statistics. <https://www.bls.gov/spotlight/2018/race-economics-and-social-status/pdf/race-economics-and-social-status.pdf>
- Pager, D., & Shepherd, H. (2008). The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annual Review of Sociology*, 34, 181–209. <https://doi.org/10.1146/annurev.soc.33.040406.131740>
- Proudford, D., & Kay, A. C. (2014). System justification in organizational contexts: How a Motivated preference for the status quo can affect organizational attitudes and behaviors. In *Research in Organizational Behavior*, 34, 173-187. <https://doi.org/10.1016/j.riob.2014.03.001>
- Proudford, D., Kay, A. C., & Mann, H. (2015). Motivated employee blindness: The impact of labor market instability on judgment of organizational inefficiencies. *Organizational Behavior and Human Decision Processes*, 130, 108-122. <https://doi.org/10.1016/j.obhdp.2015.06.008>
- Van Den Bos, K. (2001). Uncertainty management: The influence of uncertainty salience on reactions to perceived procedural fairness. *Journal of Personality and Social Psychology*,

80(6), 931–941. <https://doi.org/10.1037/0022-3514.80.6.931>

- van den Bos, K., Ham, J., Lind, E. A., Simonis, M., van Essen, W. J., & Rijpkema, M. (2008). Justice and the human alarm system: The impact of exclamation points and flashing lights on the justice judgment process. *Journal of Experimental Social Psychology, 44*(2), 201–219. <https://doi.org/10.1016/j.jesp.2007.03.001>
- van den Bos, K., & Lind, E. A. (2002). Uncertainty management by means of fairness judgments. *Advances in Experimental Social Psychology, 34*, 1-60. [https://doi.org/10.1016/s0065-2601\(02\)80003-x](https://doi.org/10.1016/s0065-2601(02)80003-x)
- Van der Toorn, J. & Jost, J. T. (2014). 20 years of system justification theory: Introduction to the special issue on "ideology and system justification processes". *Group Processes & Intergroup Relations, 17*(4), 413-419.
- Vargas-Salfate, S., Paez, D., Liu, J. H., Pratto, F., & Gil de Zúñiga, H. (2018). A comparison of social dominance theory and system justification: The role of social status in 19 nations. *Personality and Social Psychology Bulletin, 44*(7), 1060–1076. <https://doi.org/10.1177/0146167218757455>
- Walker, G., & McCabe, T. (2021). Psychological defence mechanisms during the COVID-19 pandemic: A case series. *European Journal of Psychiatry, 35*(1), 41–45. <https://doi.org/10.1016/j.ejpsy.2020.10.005>
- Wilson, M. S., & Sibley, C. G. (2013). Social dominance orientation and right-wing authoritarianism: Additive and interactive effects on political conservatism. *Political Psychology, 34*(2), 277–284. <https://doi.org/10.1111/j.1467-9221.2012.00929.x>
- Wray, M. (2020, April 2). Stabbing attack on Asian family deemed coronavirus hate crime, FBI says. *Global News*. <https://globalnews.ca/news/6769462/asian-family-attacked-coronavirus-hate-crime/>

## Appendix A

Table A1

*Regression Analysis Examining the Association Between COVID Threat and Perceived Everyday Discrimination.*

Predictor	Perceived Everyday Discrimination							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% $CI$
Step 1								
(Constant)				4.76**	.27		17.86	[4.23, 5.28]
PoP				-1.30**	.11	-.49	-11.95	[-1.52, -1.09]
Social Desirability				.04	.04	.04	1.08	[-.03, .11]
SES				.12*	.04	.12	2.61	[.03, .20]
Sex				.16*	.08	.09	2.17	[.02, .30]
Race				-.02	.08	-.01	-1.18	[-.18, .15]
	.25	.25	30.81**					
Step 2								
(Constant)				4.51**	.32		14.15	[3.89, 5.14]
PoP				-1.27**	.11	-.47	-11.28	[-1.49, -1.05]
Social Desirability				.04	.04	.05	1.19	[-.03, .11]
SES				.12*	.04	.11	2.63	[.03, .20]
Sex				.15*	.08	.08	2.03	[.01, .29]
Race				-.03	.08	-.01	-.30	[-.19, .14]
<b>COVID Threat</b>				<b>.06</b>	<b>.04</b>	<b>.06</b>	<b>1.39</b>	<b>[-.02, .14]</b>
	.25	.003	26.05					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES= Average of standardized income and highest education achieved.

Table A2

*Regression Analysis Examining the Association Between COVID Threat and Perceived Discrimination Thermometer.*

Predictor	Perceived Discrimination Thermometer							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% $CI$
Step 1								
(Constant)				11.82**	.78		15.1	[0.28, 13.36]
PoP				-4.92**	.32	-.58	-15.35	[-5.55, -4.29]
Social Desirability				.17	.10	.06	1.68	[-.03, .37]
SES				.40*	.13	.12	3.09	[.15, .66]
Sex				.33	.22	.06	1.51	[-.09, .76]
Race				.22	.24	.04	.92	[-.26, .70]
	.35	.35	49.64**					
Step 2								
(Constant)				9.64**	.92		10.47	[7.83, 11.45]
PoP				-4.59**	.32	-.54	-14.16	[-5.22, -3.95]
Social Desirability				.21	.10	.08	2.05	[.01, .40]
SES				.40*	.13	.12	3.17	[.15, .65]
Sex				.25	.22	.04	1.15	[-.18, .67]
Race				.13	.24	.02	.55	[-.34, .60]
<b>COVID Threat</b>				<b>.53**</b>	<b>.12</b>	<b>.16</b>	<b>4.30</b>	<b>[.29, .77]</b>
	.38	.03	46.02**					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES= Average of standardized income and highest education achieved

## Appendix B

Table B1

*Regression Analysis Examining the Association Between System Justification and Perceived Everyday Discrimination.*

Predictor	Perceived Everyday Discrimination							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% CI
Step 1								
(Constant)				4.76**	.27		17.86	[4.23, 5.28]
PoP				-1.30**	.11	-.49	-11.95	[-1.52, -1.09]
Social Desirability				.04	.04	.04	1.08	[-.03, .11]
SES				.12*	.04	.12	2.61	[.03, .20]
Sex				.16*	.08	.09	2.17	[.02, .30]
Race				-.02	.08	-.01	-1.18	[-.18, .15]
	.25	.25	30.81**					
Step 2								
(Constant)				4.73**	.26		18.28	[4.22, 5.24]
PoP				-.82**	.14	-.31	-5.91	[-1.09, -.55]
Social Desirability				.05	.03	.06	1.51	[-.02, .12]
SES				.15**	.04	.14	3.40	[.06, .23]
Sex				.14	.07	.08	1.92	[-.003, .28]
Race				-.04	.08	-.02	-1.18	[-.19, .12]
<b>System Justification</b>				<b>-.19**</b>	<b>.04</b>	<b>-.28</b>	<b>-5.41</b>	<b>[-.26, -.12]</b>
	.29	.05	32.12**					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES= Average of standardized income and highest education achieved.

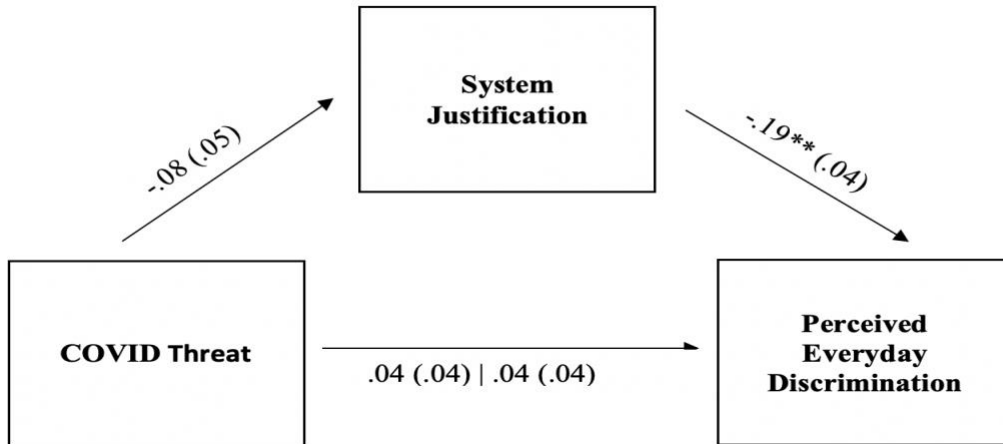
Table B2

*Regression Analysis Examining the Association Between System Justification and Perceived Discrimination Thermometer.*

Predictor	Perceived Discrimination Thermometer							
	$R^2$	$\Delta R^2$	$F$	$B$	$SE$	$\beta$	$t$	95% CI
Step 1								
(Constant)				11.82**	.78		15.1	10.28, 13.36]
PoP				-4.92**	.32	-.58	-15.35	[-5.55, -4.29]
Social Desirability				.17	.10	.06	1.68	[-.03, .37]
SES				.40*	.13	.12	3.09	[.15, .66]
Sex				.33	.22	.06	1.51	[-.09, .76]
Race				.22	.24	.04	.92	[-.26, .70]
	.35	.35	49.64**					
Step 2								
(Constant)				11.77**	.77		15.23	10.25, 13.29]
PoP				-3.94**	.41	-.47	-9.53	[-4.75, -3.13]
Social Desirability				.19*	.10	.07	1.97	[.000, .39]
SES				.46**	.13	.14	3.59	[.21, .72]
Sex				.29	.22	.05	1.32	[-.14, .71]
Race				.18	.24	.03	.74	[-.29, .65]
<b>System Justification</b>				<b>-.39</b>	<b>.11</b>	<b>-.18</b>	<b>-3.66</b>	<b>[-.59, -.18]</b>
	.37	.02	44.72**					

Note.  $N = 468$ . PoP = Perceptions of Police. \* $p < .05$ , \*\* $p < .001$ . SES= Average of standardized income and highest education achieved.

### Appendix C



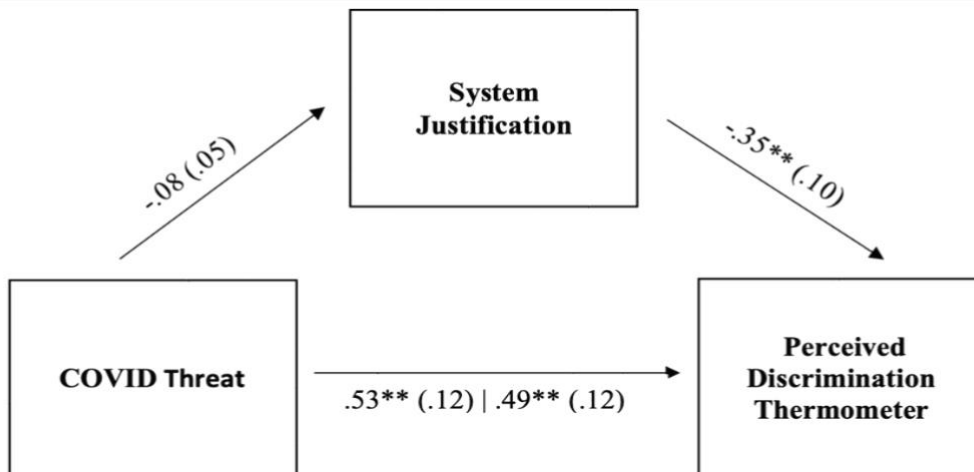
*indirect effect* = .02, *SE* = .01, *CI*<sub>95</sub> =  $-.004, .04$

*Figure C1.* Unstandardized regression coefficients for the association between COVID threat and perceived everyday discrimination, through system justification. Standard errors are provided in parentheses. Race, sex, socioeconomic status, perceptions of police fairness, and social desirability were included as covariates.

*N* = 468

\**p* < .05

\*\**p* < .001



*indirect effect* = .03, *SE* = .02, *CI*<sub>95</sub> =  $-.01, .09$

*Figure C2.* Unstandardized regression coefficients for the association between COVID threat and perceived discrimination thermometer, through system justification. Standard errors are provided in parentheses. Race, sex, socioeconomic status, perceptions of police fairness, and social desirability were included as covariates.

*N* = 468

\**p* < .05

\*\**p* < .001

## Appendix D

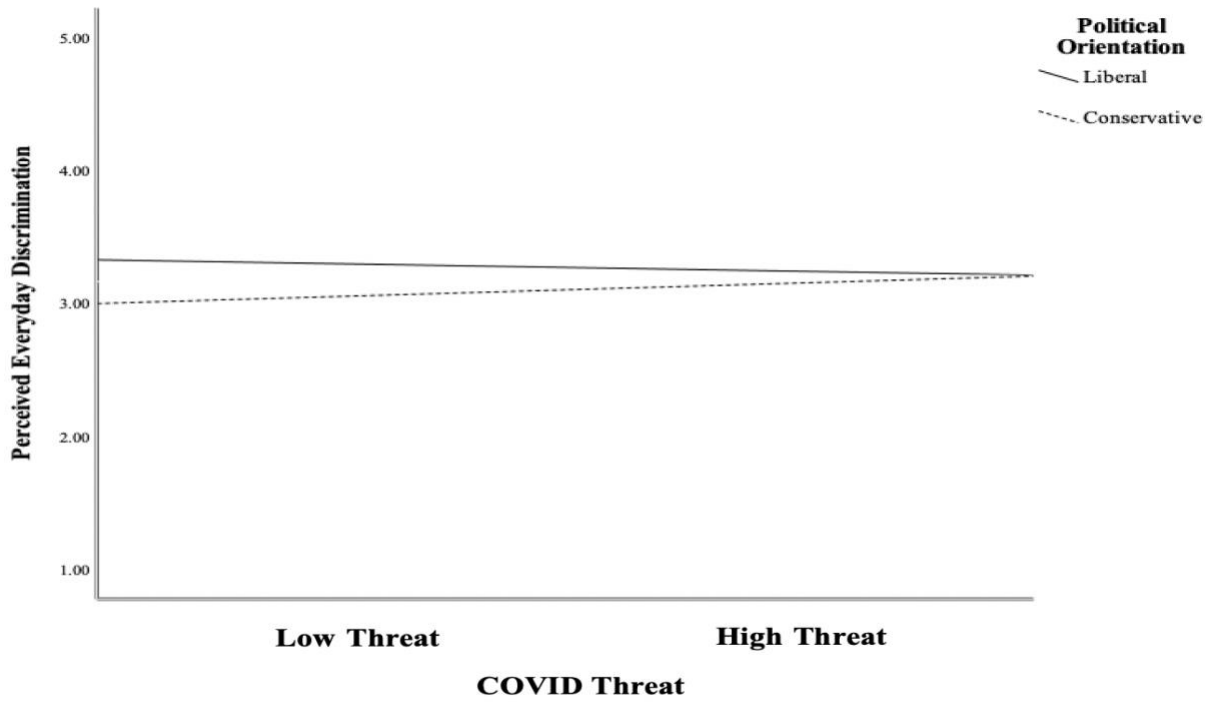


Figure D1 . Plot of COVID threat x political orientation interaction effect on perceived everyday discrimination.

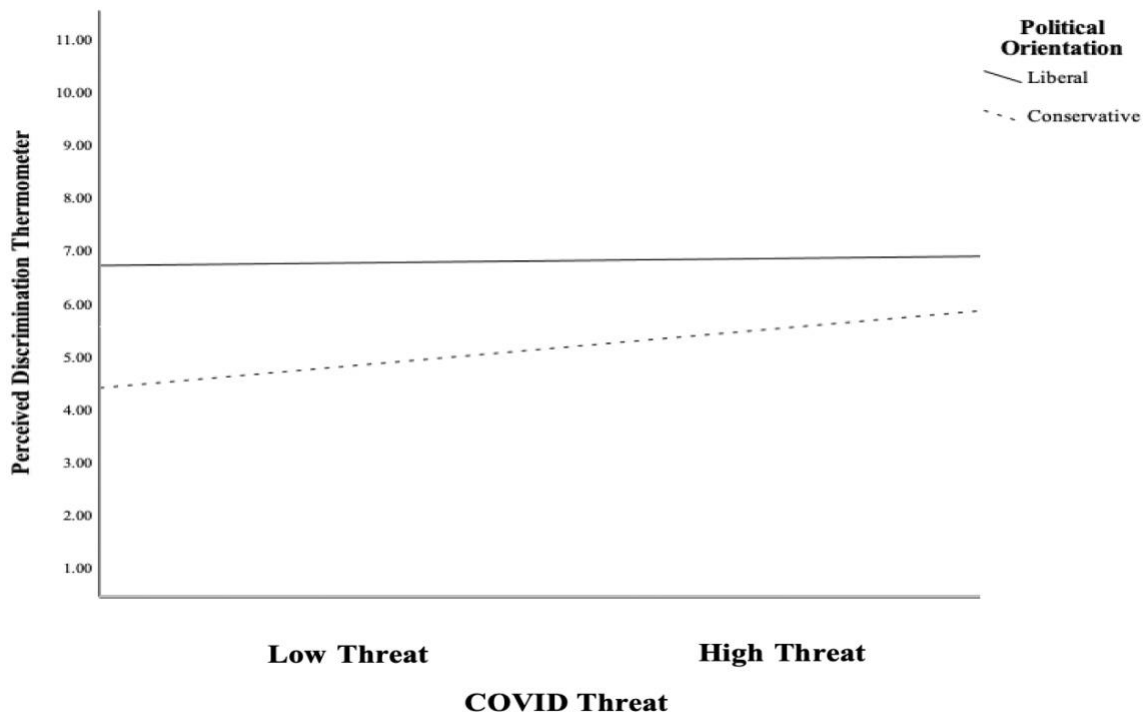
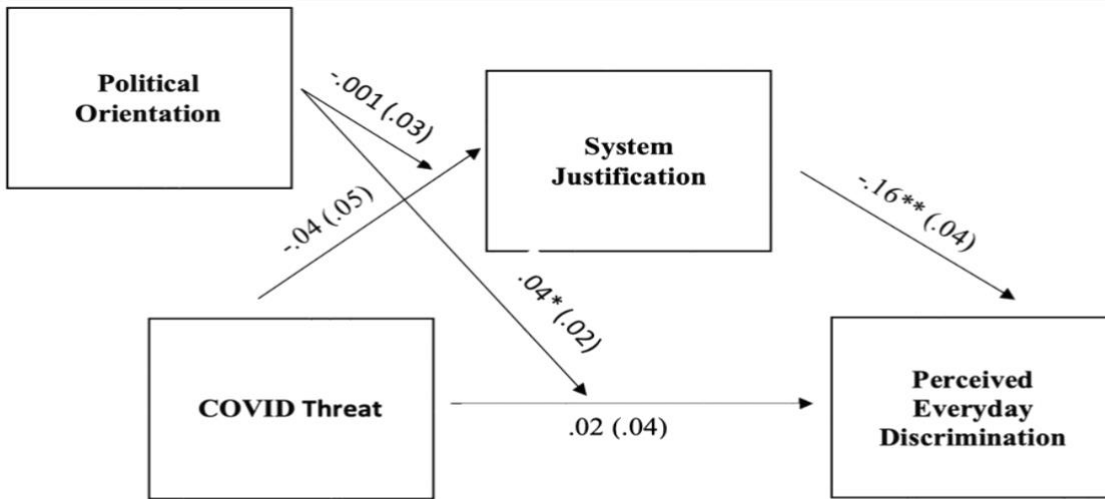


Figure D2 . Plot of COVID threat x political orientation interaction effect on perceived discrimination thermometer.

## Appendix E



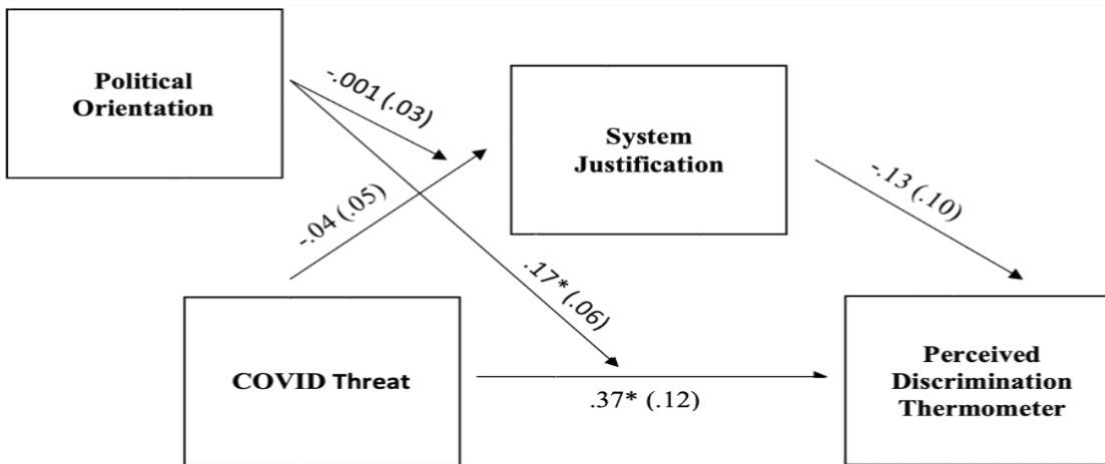
*index of moderated mediation* = .0002,  $CI_{95}$  = -.01, .01

*Figure E1.* Unstandardized regression coefficients for the association between COVID threat and perceived everyday discrimination, through system justification, with political orientation as a moderator. Standard errors are provided in parentheses. Race, sex, socioeconomic status, perceptions of police fairness, and social desirability were included as covariates.

$N = 468$

\* $p < .05$

\*\* $p < .001$



*index of moderated mediation* = .0001,  $CI_{95}$  = -.01, .01

*Figure E2.* Unstandardized regression coefficients for the association between COVID threat and perceived discrimination thermometer, through system justification, with political orientation as a moderator. Standard errors are provided in parentheses. Race, sex, socioeconomic status, perceptions of police fairness, and social desirability were included as covariates.

$N = 468$

\* $p < .05$

\*\* $p < .001$

## Supplement

The current research was conducted initially as Part 1 of a 2-part study. Part 2 of the research was conducted as an experimental study to a) allow for causal inferencing of the association between COVID threat and perceptions of racial discrimination as studied in Part 1 and, more importantly, b) examine the influence that system justification has on *memories* of racial discrimination. More specifically, based on prior research suggesting a link between motivated attitudes/behaviours and memory bias (see for instance Echterhoff et al., 2008), Part 2 of the study was designed primarily to examine the influence that system justifying attitudes, and the conditions that elicit such attitudes, have on memories of racial discrimination. Given that system justifying attitudes are motivated by a desire to perceive one's social system as fair, it was hypothesized that experimentally inducing feelings of system inescapability (a threat suggested to elicit system justification) would bias memory and motivate individuals to remember perceiving less racial discrimination in their country than they had initially reported perceiving at an earlier time (i.e., in Part 1 of the study).

To test the above hypothesis, participants from Part 1 of the study were invited to complete the same study survey one month later, after first reading a news article experimentally varied to induce perceptions of system inescapability. Half of the participants read that because of the COVID-19 pandemic, travel outside of the US would be more difficult over the next few years (the system threat condition). The other participants read that despite the pandemic, travel outside of the US would be no more difficult than it was prior to the pandemic (the no system threat condition). Participants then answered the same set of measures as in Part 1, including revised versions of the three discrimination measures to assess recall of discrimination as



perceived in Part 1 of the study. More specifically, participants were asked to recall how they answered each of the items from the three measure back in Part 1 of the study.

As mentioned above, participants were randomly assigned into either the system threat (experimental) condition, or the no system threat (control) condition, in Part 2 of the study. A repeated between-subjects ANOVA was then conducted, comparing perceptions of racial discrimination in Part 1 to memories of racial discrimination in Part 2, between participants in the control and experimental conditions. It was hypothesized that participants in the experimental condition (but not in the control condition) would remember perceiving less racial discrimination than they had initially reported perceiving in Part 1 of the study. On the other hand, participants in the control condition were hypothesized to have more accurate memory. Therefore, memories of racial discrimination were hypothesized to differ significantly between participants in the control and experimental conditions, with participants in the experimental condition remembering perceiving less racial discrimination than participants in the control condition. The analyses instead indicated a significant condition effect in both parts of the study, even though the manipulation was introduced in Part 2 of the study, and was absent from Part 1, suggesting a failure in random assignment. Due to the error in random assignment, only Part 1 of the study is discussed in this thesis.