Article

A Superhumanization Bias in Whites' Perceptions of Blacks

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Abstract

The present research provides the first systematic empirical investigation into superhumanization, the attribution of supernatural, extrasensory, and magical mental and physical qualities to humans. Five studies test and support the hypothesis that White Americans superhumanize Black people relative to White people. Studies 1–2b demonstrate this phenomenon at an implicit level, showing that Whites preferentially associate Blacks versus Whites with superhuman versus human words on an implicit association test and on a categorization task. Studies 3–4 demonstrate this phenomenon at an explicit level, showing that Whites preferentially attribute superhuman capacities to Blacks versus Whites, and Study 4 specifically shows that superhumanization of Blacks predicts denial of pain to Black versus White targets. Together, these studies demonstrate a novel and potentially detrimental process through which Whites perceive Blacks.

Keywords

stereotyping, prejudice, intergroup relations, superhumanization, dehumanization

Historically, Black Americans have been dehumanized, from constitutional denial of full legal personhood to enslavement as chattel. Today, a subtler form of dehumanization of Blacks persists, with powerful consequences; it increases endorsement of police brutality against Blacks (Goff, Eberhardt, Williams, & Jackson, 2008) and reduces altruism toward Blacks (Mathur, Harada, Lipke, & Chiao, 2010). Dehumanization's consequential nature has spurred much research on how this process contributes to bias, discrimination, and prejudice. The present research extends work on dehumanization by illuminating superhumanization, a related, but largely unexamined phenomenon that contributes to prejudice toward Blacks despite appearing positive, and perhaps even complimentary.

Dehumanization broadly refers to "perceiving a person or group as lacking humanness" (Haslam & Loughnan, 2014, p. 401). Psychological research on dehumanization has focused on representing others as *infrahuman* or *subhuman*, either as mechanistic objects or as animals (Haslam, 2006; Leyens et al., 2000). Superhumanization similarly involves depriving others of human character and attributes, but represents a distinct, independent process from infrahumanization. The few studies that have examined superhumanization operationalize this concept only in terms of preferential attribution of distinctively human capacities (Demoulin, Saroglou, & Van Pachterbeke, 2008; Haslam, Kashima, Loughnan, Shi, & Suitner, 2008) rather than qualities beyond those of normal humans. Therefore, we offer a novel conceptualization of superhumanization that specifically focuses on nonhuman qualities. Drawing on sociology, anthropology, and mass media studies (e.g.,

Harris-Lacewell, 2001; Hicks, 2003; Scott, 2006), we define superhumanization as the representation of others as possessing mental and physical qualities that are supernatural (transcending the laws of nature), extrasensory (transcending the bounds of normal human perception), and magical (influencing or manipulating the natural world through symbolic or ritualistic means). Thus, superhumanization involves representing others as nonhuman, but not as subhuman animals or objects—superhumanization implies characterization of others as *beyond* human.

Based on this conceptualization of superhumanization, the present research tests the hypothesis that Whites implicitly and explicitly superhumanize Blacks to a greater degree than Whites. Furthermore, we test the hypothesis that superhumanization has negative consequences despite appearing positive and even complimentary. Work on moral typecasting (Gray & Wegner, 2009, 2011) shows that perceiving humans (e.g., Gandhi and Mother Theresa) and nonhuman entities (e.g., God) to have advanced capacities for agency (e.g., thinking, planning, and doing) reduces perceptions of these figures (compared to entities perceived to lack agency) as capable

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of experiencing pain. In these studies, people "typecast" particular entities as either moral agents (capable of helping or harming others) or moral patients (capable of receiving help or harm), and once they typecast an entity as a moral agent, they become incapable of viewing the entity as a moral patient. Thus, if people see Blacks as superhuman, they may perceive them as moral agents, also leading them to perceive Blacks as less capable than Whites of feeling pain. This is important because failure to recognize someone else's pain likely reduces empathy and justifies withholding aid when aid is needed.

Suggestive Evidence for Superhumanization of Blacks

Popular media often depict Black people as supernatural and magical, capable of extrasensory feats. Director Spike Lee famously criticized the portrayal of Black characters in many 21st-century films (e.g., *The Green Mile* and *The Legend of Bagger Vance*), stating, "These films all have these magical, mystical Negroes who show up as some sort of spirit or angel, but only to benefit the white characters" (Crowdus & Georgakas, 2001, p. 5). This supernatural archetype emerges in earlier films also (Hughey, 2009), with such characters often possessing particular supernatural abilities to foresee the future, heal illness, transform others, and frequently appearing outright as supernatural entities such as Gods or ghosts. These magical representations also emerge in media portrayals of Black athletes as possessing superhuman abilities (Carrington, 2010; Entine, 2000).

Beyond anecdotal, qualitative, and historical evidence of superhumanized Black imagery, quantitative research also suggests that people attribute superhuman qualities to Blacks. One line of research demonstrates that people attribute higher-than-average physical capabilities (e.g., toughness and strength) to African Americans (Cottrell & Neuberg, 2005; Harris-Lacewell, 2001; Payne, 2001). This attribution is suggestive of superhumanization (to the extent that higher-than-average might reflect more-than-human attributions) and may contribute to the perception that Blacks are less sensitive to pain than Whites (Trawalter, Hoffman, & Waytz, 2012). This existing work, however, assesses attributions of qualities (strength, toughness, and pain tolerance) that are squarely in the human realm (i.e., attributions of superior human qualities) whereas the present work assesses attributions of qualities of which humans are largely incapable (i.e., superhuman attributions). Given suggestive evidence that depictions of Blacks tend to involve superhuman mental qualities (e.g., clairvoyance), superhuman physical qualities (e.g., strength), and general superhuman characteristics (e.g., the ability to be ghostlike or Godlike), the present research tests explicitly whether a superhumanization bias toward Blacks exists.

The Present Research

As the first empirical foray into the superhumanization of Blacks, the present research focuses on establishing the phenomenon at an implicit and explicit level. Specifically, Study 1 uses an Implicit Association Test (IAT) to test whether Whites more strongly associate Blacks versus Whites with words related to superhumanness and Whites versus Blacks with words related to humanness. Study 2 uses a categorization task to test whether after seeing Black faces, Whites identify words related to superhumanness more quickly than words related to humanness, and also to examine associations with subhumanness. Studies 3 and 4 attempt to demonstrate superhumanization explicitly, asking participants to indicate whether various White or Black targets are more likely to possess particular superhuman capacities. In addition, Study 4 distinguishes superhuman attribution from attribution of basic human characteristics and tests a potential consequence of superhumanization—the denial of pain to Blacks versus Whites (Trawalter et al., 2012). Following work on moral typecasting (Gray & Wegner, 2009), if people consider Blacks to be superhuman, and thus highly agentic, they may also consider Blacks to be less susceptible than Whites to experiencing pain.

Study 1

Study 1 provides the first test of whether Whites preferentially associate superhuman versus human qualities to Blacks versus Whites.

Method

Thirty White, U.S.-born undergraduate students (80% women; $M_{age} = 18.40$) participated in this study in exchange for partial course credit. Participants were greeted by a White experimenter and taken to a private lab room. The experimenter explained that all tasks and instructions would appear on the computer screen and left the room. Participants completed an IAT (Greenwald, McGhee, & Schwartz, 1998) measuring the strength of associations between two target concepts (Black Americans and White Americans) and two attributes (superhuman and human). Participants were instructed to categorize stimuli representing the four categories (pictures of Black and White, male and female faces; superhuman and human words), one at a time using two keys. Seven superhuman words (*ghost*, *paranormal*, *spirit*, *wizard*, *supernatural*, *magic*, and *mystical*) were selected based on our operationalization of superhumanization as the representation of others as possessing supernatural, extrasensory, and magical qualities. These words either constituted descriptors of these superhuman qualities or figures that possess these qualities, and all superhuman words constituted concepts explicitly assessed in canonical measures of magical ideation (Eckblad & Chapman, 1993), paranormal belief (Tobacyk, 1988), and expressions of spirituality (MacDonald, 2000), and in theorizing on sanctification (Brandt & Reyna, 2011; Haidt, 2003; Haidt & Algoe, 2004). Seven human words (*person*, *individual*, *humanity*, *people*, *civilian*, *mankind*, and *citizen*) were adapted from a set of stimulus words developed and validated in previous work assessing associations with the category, humanness (Viki et al., 2006). Participants

received the full list of seven superhuman and seven human words prior to beginning the task. There were two critical blocks randomized between participants: In one, participants categorized Black faces and superhuman words with one key, and White faces and human words with the other key; in the other critical block, participants categorized Black faces and human words with one key, and White faces and superhuman words with the other key. Faster average latencies in the first compared to the second critical block indicate stronger implicit association between Blacks and superhumanness relative to Whites and humanness. Upon finishing the IAT, participants provided demographic information, and in this and subsequent studies, were thanked and debriefed.

Results

We scored the IAT following Greenwald, Nosek, and Banaji's (2003) recommendations. On average, participants showed a moderate association between Whites/humanness relative to Black/superhumanness, IAT $D = .48$, $t(29) = 8.81$, $p < .0001$, $d = 1.61$. That is, participants associated superhuman relative to human words more quickly with Black targets relative to White targets. These results suggest that people associate superhuman qualities such as magic and mysticism (vs. basic human qualities) with Blacks to a greater degree than with Whites and suggest that Whites appear to superhumanize Blacks implicitly.

Study 2a

Study 1 suggests an implicit superhumanness bias, but the IAT cannot distinguish between White-human and Black-superhuman associations. It is thus possible that the documented bias emerged in part because of White-human associations rather than Black-superhuman associations. Study 2 thus disentangles these associations to strengthen evidence for a superhumanization bias. In this study, we also examine whether Whites also preferentially associate subhuman versus human qualities with Blacks.

Method

Twenty-seven White, U.S.-born undergraduate students (48% women; $M_{age} = 19$) participated in this study in exchange for partial course credit. Participants were greeted by a White experimenter and taken to a private lab room. Participants completed both a superhuman/human and a subhuman/human implicit categorization task (task order counterbalanced across participants). Participants were informed that we were interested in "Whether faces (i.e., social stimuli) disrupt your ability to process words, especially when the words are relevant to people." They were then instructed to sort words as belonging to the category "superhuman" or "human" in one task, and "infrahuman" (indicative of subhumanness) and human in the other task as quickly as possible by pressing a designated computer key. Prior to beginning the superhuman task, they were

provided with the definition of superhuman (i.e., "more than human"), as well as the full lists of the same seven superhuman and seven human words used in Study 1. Prior to the subhuman task, participants were provided with the definition of infrahuman (i.e., "less than human"), as well as seven subhuman words (*wild*, *monster*, *devil*, *brute*, *demon*, *creature*, and *beast*). The seven subhuman words included words adapted from research measuring associations with the concept infrahuman (Viki et al., 2006) and also included words that reflect the subhuman dimension of the vertical hierarchy from Gods/saints to demons/animals (Brandt & Reyna, 2011; Haidt, 2003; Haidt & Algoe, 2004). The face primes consisted of 60 standardized color photographs of Black and White men and women from the Productive Aging Lab Face Database (Minear & Park, 2004).

At the beginning of each trial for the superhuman task, participants viewed a white screen with a small black fixation cross in the center, and the words superhuman and human in either the left or right upper corner of the screen (category location and computer key location randomized across participants). After 1,000 ms, a randomly selected prime flashed for 35 ms and then was replaced by a white cover for 40 ms, followed by a randomly selected superhuman or human word that remained on the screen until participants pressed either the "F" or "J" key to indicate their response. Participants completed four practice trials, one of each trial type (Black prime/human, Black prime/superhuman, White prime/human, and White prime/superhuman) with error feedback for incorrect responses (provided only for practice trials to help participants understand the task). After the practice trials, participants completed two critical blocks of 48 trials each. The subhuman task was identical to this study's superhuman task, except that the superhuman category was replaced with infrahuman (indicative of subhumanness). Upon finishing these tasks, participants provided demographic information.

Results

We removed incorrect trials and outliers (reaction times ± 2.5 *SD* each participant's mean) from the data set, resulting in removal of approximately 6% of the data. We log transformed the data to reduce positive skew and created a mean reaction time for each trial type (Black/human, Black/superhuman, Black/subhuman, White/human, White/superhuman, and White/subhuman) for each participant. We then modeled these means as a function of race of the prime (Black or White), target word (human, not-human; i.e., superhuman *or* subhuman), task (human/superhuman and human/subhuman), and their interactions (all within participants). Results revealed the predicted Race of Prime × Target Word interaction, $F(1, 26) = 15.49$, $p = .0006$, $\eta_p^2 = .37$.

Most central to our hypotheses, for the superhuman/human categorization task, participants' reaction times were significantly faster for superhuman than human words following Black primes, suggesting superhumanization, $F(1, 26) = 5.31$, $p = .03$, $\eta_p^2 = .17$ (see Figure 1). Participants' reaction
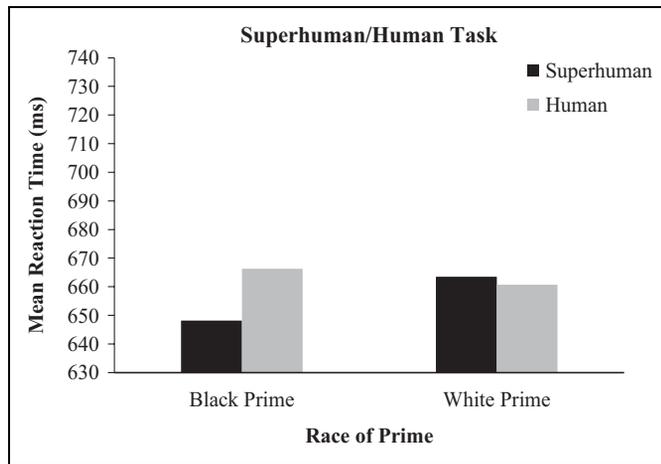
Figure 1. Raw mean reaction times to target words for the super-human/human task by prime race (Study 2a).

Figure 2. Raw mean reaction times to target words for the super-human/human task by prime race (Study 2b).

times did not differ following White primes, $F < 1$. For the sub-human/human categorization task, participants' reaction times were significantly faster for subhuman than human words following Black primes, suggesting subhumanization, $F(1, 26) = 10.63$, $p = .003$, $\eta_p^2 = .29$. And again, participants' reaction times did not differ following White primes, $F < 1$. Thus, this study extends the findings of Study 1 and provides evidence for the simultaneous subhumanization and superhumanization of Blacks.
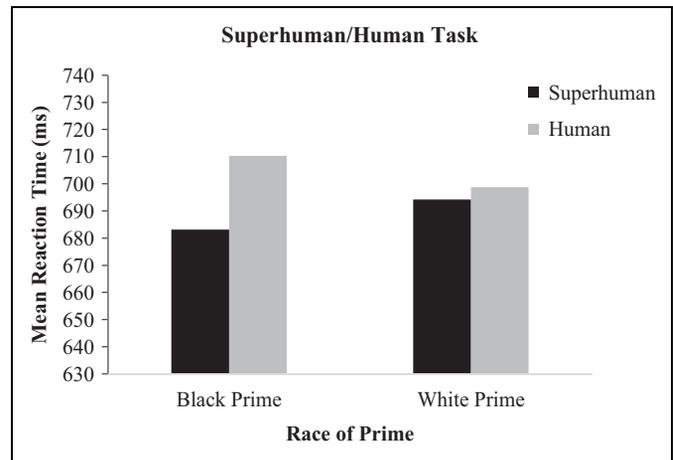
Study 2b

Because this research is the first to test systematically superhumanization beyond simply preferential attribution of distinctively human capacities, it was important in Study 2a to rely on the little theorizing on this concept that exists. Thus, we operationalized subhuman in line with previous work on infrahumanization (i.e., Viki et al., 2006) and on the subhuman dimension of the sanctification–degradation hierarchy that spans from Gods/saints down to demons/animals (Brandt & Reyna, 2011; Haidt, 2003; Haidt & Algoe, 2004). However, concepts such as devil and demon are unique in that they simultaneously occupy status as subhumans (Brandt & Reyna, 2011; Haidt, 2003; Haidt & Algoe, 2004), but also may appear to possess supernatural qualities. This feature of Study 2a does not alter the finding that participants showed a superhumanization bias in terms of associations between Blacks and words within a "purely" superhuman category. Nonetheless, we conducted Study 2b, to expand on Study 2a by including a subhuman category absent of words with any ostensible supernatural connotations.

Method

Thirty-four White, U.S.-born undergraduate students and community members (76% women; $M_{age} = 22.26$) participated in this study in exchange for partial course credit.

Participants were approached by a White experimenter around the university campus and asked if they wanted to take

part in a brief study in exchange for candy. Participants who consented were then seated at a table with a laptop to complete the study. Participants completed the same tasks as in Study 2a, but the categories included slightly different words to ensure that each word reflected the category, and only the category, to which it was assigned. The superhuman and human words were identical to those used in Study 2a; the seven subhuman words were adapted from the animal-related words used by Viki and colleagues' (2006) infrahumanization tasks (*breed*, *creature*, *mongrel*, *critter*, *feral*, *wildlife*, and *pet*).

Results

One participant had nearly 50% errors and was removed from the analysis. As in Study 2a, we removed incorrect trials and outliers (reaction times ± 2.5 SD each participant's mean) from the data set, resulting in the removal of approximately 7% of the data. We log transformed the data and created a mean reaction time for each trial type, and modeled these means all exactly as in Study 2a. As in Study 2a, results revealed the predicted Race of Prime × Target Word interaction, $F(1, 32) = 9.17$, $p = .005$, $\eta_p^2 = .22$.

Most central to our hypotheses, for the superhuman/human categorization task, participants' reaction times were significantly faster for superhuman than human words following Black primes. $F(1, 32) = 4.67$, $p = .04$, $\eta_p^2 = .13$, suggesting superhumanization of Blacks (see Figure 2). Reaction times did not differ following White primes, $F < 1$. This finding nicely replicates Study 2a. Unlike Study 2a, for the subhuman/human categorization task, participants' reaction times were marginally faster for human than subhuman words following Black primes, $F(1, 32) = 3.22$, $p = .08$, $\eta_p^2 = .09$, and significantly faster for human than subhuman words following White primes, $F(1, 32) = 16.12$, $p = .0003$, $\eta_p^2 = .34$. Thus, taken together, Studies 2a and 2b provide mixed evidence for the subhumanization of Blacks, but more importantly show very consistent evidence for the superhumanization of Blacks and

suggest superhumanization is a distinct process from subhumanization.

Study 3

Studies 1, 2a, and 2b provide initial evidence for a superhumanization bias and employ tasks that are not susceptible to demand, given their implicit nature. However, it is also important to know whether Whites explicitly superhumanize Blacks. Thus, we extend these findings in Study 3 by testing whether Whites superhumanize Blacks on more overt measures that we developed to examine this bias.

Method

Ninety-four individuals (26% women, $M_{\text{age}} = 27.88$) participated via Amazon.com Mechanical Turk for a payment under US$1.00 and constituted our final sample analyzed below. Analyses included only participants who indicated that they were White/Caucasian and born in the United States, including three who indicated ethnicity as "American" and three who did not indicate ethnicity. Excluding these participants did not meaningfully alter results below, and these specifications also apply to the following study.

Participants responded to six forced-choice items asking them to indicate whether a Black person or a White person depicted (two female trials and four male trials; images again taken from the Minear & Park, 2004, database and matched on expression) was more capable of possessing a given superhuman quality (e.g., using supernatural powers to suppress hunger and thirst; see supplementary online information [SOI] for details). After these items, participants completed demographic questions.

We coded responses to each question as 1 = *Black* and 0 = *White* and summed responses to compute a superhumanization score for each participant. Thus, scores could range from 0 to 6, with a score of 6 indicating that participants attributed all six superhuman capacities to Blacks and a score of 0 indicating that participants attributed all six capacities to Whites. We intentionally designed this task as a forced-choice procedure, as this method has been used to mitigate social desirability biases (Nederhof, 1985), particularly in the context of stereotyping and prejudice (Pitner, Astor, Benbenishty, Haj-Yahia, & Zeira, 2003; Signorella, Bigler, & Liden, 1993). Using this method, we predicted that, as in Studies 1 and 2, participants would show relatively greater superhumanization of Blacks than of Whites.

Results

Given the 0 to 6 range for superhumanization scores, the point that would indicate equivalent superhumanization of Whites and Blacks (i.e., no racial bias in superhumanization) would be 3. Therefore, we conducted a one-sample *t*-test comparing superhumanization scores to "3" and revealed that people significantly superhumanized Blacks compared to Whites ($M = 3.81$, $SD = 1.11$), $t(93) = 7.06$, $p < .0001$, $d = .73$ (see SOI for

analyses of individual items). On average, participant scores were significantly higher than the equivalence point, demonstrating relative superhumanization of Blacks.

Study 4

In Study 4, we attempted to replicate and extend Study 3, testing for evidence of explicit superhumanization and an additional, negative consequence: racial bias in pain perception (Trawalter et al., 2012). Based on work showing that people perceive supernatural beings (e.g., God) to lack the capacity for pain (Gray, Gray, & Wegner, 2007) and that attributions of extreme agency inversely correspond to attributions of emotional experience (Gray & Wegner, 2009, 2011), we predicted that superhumanization of Blacks will be associated with reduced perceptions of Blacks' experience of pain.

Method

One hundred and ninety individuals (46% women, $M_{\text{age}} = 33.15$) participated online as in Study 3 and constituted our final sample analyzed below. Analyses included only participants who indicated that they were White/Caucasian and born in the United States, including two participants who indicated their ethnicity as "American" and one who did not indicate ethnicity. Excluding these participants did not meaningfully alter results below.

Participants were randomly assigned to one of two versions of the study that were identical except for the photographs of the two targets used (one pair taken from the Minear & Park, 2004, database and one taken from the IAT in Study 1; both were matched on expression). We used two versions to ensure any results could generalize beyond the specific stimuli we chose; patterns of primary results were identical, so we collapse over version in analyses below. In both versions, participants viewed an image of John, a Black male, and Jeff, a White male, and were asked to write about what it would be like to meet each one. Then, participants were asked to indicate, as in Study 3, which target would be more capable of three superhuman qualities (one involving mental control and two involving more physical capacities; see SOI for details). As in Study 3, we coded responses to each question as 1 = *Black* and 0 = *White* (range: 0 to 3) and summed responses to compute a superhumanization score for each participant (higher scores reflect more superhumanization of Blacks). Next, to distinguish any superhumanization bias from simply higher attributions of ability more generally, we asked participants to evaluate John and Jeff on three "everyday" capabilities (e.g., walking a dog; see SOI for details). We summed these to compute an "everyday capabilities" score (range: 0–3; higher scores reflect more attribution of everyday capabilities to Blacks). We predicted that, consistent with Studies 1–3, participants would demonstrate relatively greater superhumanization of Blacks, but this would not emerge for the "everyday capabilities" measure.

Finally, to assess pain attribution, participants completed 7 items that described both John and Jeff experiencing some

injury and then asking, "Which of these people do you think requires more pain medication to reduce the pain they have experienced?" (see SOI for details). We summed these items to compute a pain score (range: 0–7; higher scores reflect more pain attribution to Blacks). Again, we used forced-choice procedures on all tasks to mitigate social desirability biases, and we predicted that, consistent with prior literature, people would attribute less pain to Blacks than Whites and that increased superhumanization of Blacks would predict decreased pain attribution to Blacks compared to Whites.

Results

We conducted an equivalent one-sample t-test to Study 3, comparing superhumanization scores to "1.5"—the point reflecting no racial bias in superhumanization (a 0 or 1 score would indicate greater attribution of superhuman qualities to Whites and a 2 or 3 score would indicate greater attribution of these qualities to Blacks). People again significantly superhumanized Blacks compared to Whites ($M = 1.94$, $SD = 0.84$), $t(189) = 7.3$, $p < .0001$, $d = .52$, replicating Study 3 (see SOI for analyses of individual items).

Interestingly, an identical one-sample t-test for everyday capabilities suggested a bias in the opposite direction. People attributed everyday capabilities to Whites to a marginally greater degree compared to Blacks ($M = 1.37$, $SD = 0.96$), $t(189) = 1.89$, $p = .06$, $d = .14$. Although not necessarily expected, this finding is largely consistent with previous findings demonstrating dehumanization of Blacks; here people see Blacks as marginally less capable than Whites of everyday human activities. In addition, superhumanization and attribution of everyday capabilities were negatively correlated, $r(188) = -.20$, $p = .005$, such that superhumanization of Blacks was associated with decreased attribution of everyday capabilities toward Blacks.

A one-sample t-test comparing pain scores to "3.5"—the point reflecting equivalent pain attribution to Whites and Blacks—revealed that people attributed significantly less pain to Blacks versus Whites ($M = 2.14$, $SD = 2.07$), $t(189) = 9.01$, $p < .0001$, $d = .66$. This finding is broadly consistent with previous work on diminished pain attribution to Blacks (Trawalter et al., 2012) and dehumanization of Blacks (Goff et al., 2008). Moreover, correlations revealed that superhumanization was negatively related with pain attribution, $r(188) = -.27$, $p < .0001$, such that increased superhumanization of Blacks was associated with decreased pain attribution toward Blacks. Attribution of everyday capabilities, on the other hand, did not predict pain attribution, $r(188) = -.09$, $p = .20$). Thus, superhumanization appears distinctively associated with the tendency to overlook pain in Blacks relative to Whites.

General Discussion

The phenomenon of superhumanization has received virtually no empirical attention in psychology. Five studies here fill this theoretical gap, demonstrating that Whites implicitly and explicitly superhumanize Blacks versus Whites. Notably, these studies employ Black targets of both genders and superhuman qualities that are mental (e.g., mental control), physical (e.g., running at the speed of light), specific (in terms of particular abilities), and general (e.g., being mystical or supernatural), demonstrating the robustness of this effect.

These studies provide at least three theoretical advances for research on person perception, intergroup relations, and prejudice. First, they provide evidence for a wholly untested phenomenon in demonstrating a superhumanization bias. Second, they provide evidence for a novel contributor to prejudice in showing that superhumanization is associated with diminished recognition of Blacks' pain. Third, they provide evidence for a novel form of dehumanization, one that treats humans—in this case, Blacks—as nonhuman, not through animalization or mechanization, but through depicting them as *superhuman*. This aspect of the present research is striking because, a priori, superhumanization seems like a phenomenon reserved for admired and/or well-liked targets (Demoulin et al., 2008; Haslam et al., 2008; Viki & Calitri, 2008).

The present research also rules out at least two potential alternative explanations for this superhumanization bias. First, this bias does not merely reflect the association of Blacks with religion. Although some words used in Studies 1 and 2 have a religious quality, the capabilities assessed in Studies 3 and 4 (e.g., superhuman strength and speed) bear little on religion, and furthermore, the Blacks-religion association itself has diminished greatly in recent years (Czopp & Monteith, 2006; Devine & Elliot, 1995). Second, this superhuman bias does not appear to reflect mere positivity. Study 4 demonstrates superhumanization of Blacks in concert with uncharitable perceptions of Blacks: correlations between superhumanization and denial of pain and between superhumanization and denial of everyday capabilities. Both results suggest that superhumanization does not reflect a wholly positive perception of Blacks and are more consistent with studies showing ironic effects of positive stereotyping (Kay, Day, Zanna, & Nussbaum, 2013). Thus, the present findings reflect a bias distinct from findings in prior literature.

Despite the robustness and distinctiveness of this superhumanization bias, our studies leave open at least three questions for future research. The first is whether this superhumanization bias occurs at an absolute level as well as a relative one. Because we consider superhumanization, like other forms of dehumanization, to be an inherently comparative phenomenon linked to beliefs that some groups supersede others (Hodson & Costello, 2007; Leyens et al., 2000), our research only examines superhumanization of Blacks *in comparison* to Whites. It is possible that this bias is attenuated in cases that involve evaluating Whites and Blacks separately. Critical to the present research was to demonstrate that such a bias exists at all and that it exists in the direction of *out-group* superhumanization rather than *in-group* superhumanization that might be predicted by research demonstrating people's belief in in-group superiority (Brewer, 1979; Tajfel & Turner, 1986).

A second question is how specific this superhumanization bias is to White perceivers and Black targets. We focused on

Whites' superhumanization of Blacks because of suggestive historical, anecdotal, and quantitative empirical evidence that such a bias exists, but it is possible that this bias is not specific to White perceivers or Black targets. For example, whereas superhumanization of Blacks might focus on physical attributes (as in Study 4; see SOI) related to the stereotype of African American athleticism (Devine & Elliot, 1995), superhumanization of Asians might center on enhanced intelligence consistent with stereotypes of Chinese and Japanese (Madon et al., 2001). We welcome future research on this topic.

A third and final question concerns how superhumanization in this context relates to existing conceptualizations and operationalizations of humanness. As we note in the introduction, the present research differs from previous research on humanization and dehumanization because it operationalizes our key construct, superhumanization, outside of qualities squarely in the human realm. Nonetheless, it is possible that superhumanization is associated with extreme attributions of capacities perceived to be distinctively human. For example, we base our predictions for Study 4 on mind perception and moral typecasting research, suggesting that extreme attributions of agency imply reduced attributions of experience. It is possible, particularly given our measures of superhumanization in Studies 3 and 4, that superhumanization constitutes an expanded agency attribution beyond mere human capacities for intentionality, planning, and purposeful action. Related to this process is mechanistic dehumanization (Haslam, 2006), whereby others "are seen as lacking warmth, emotion, and individuality, and likened to inanimate objects . . . [or] are perceived as inert or instrumental" (Haslam & Loughnan, 2014, p. 403). Although superhumanization bears some similarity to mechanistic dehumanization, our conceptualization does not suggest that others are perceived as inert or object-like. Furthermore, existing operationalizations of mechanistic dehumanization involve exclusively attribution of human qualities rather than of qualities that only a superhuman could perform. Future research can determine the differences and commonalities between superhumanization and other conceptualizations of humanness.

The present findings also suggest numerous implications of this bias for future research to explore. For example, Study 4 suggests that superhumanization of Blacks might contribute to medical decisions that involve undertreatment of pain for Black patients (Bonham, 2001; Drwecki, Moore, Ward, & Prkachin, 2011). Superhumanization of Blacks might also explain why people consider Black juveniles to be more "adult" than White juveniles when judging culpability (Rattan, Levine, Dweck, & Eberhardt, 2012); perhaps people attribute enhanced agency to Blacks thereby judging them more culpable than Whites for their actions (Gray et al., 2007). Relatedly, superhumanization of Blacks may contribute to Whites' tolerance for police brutality against Blacks (Goff et al., 2008); perhaps people assume that Blacks possess extra (i.e., superhuman) strength enables them to endure violence more easily than other humans. For now, the present research provides evidence of a superhumanization bias that, despite its ostensible distinction from other forms of prejudice, may be just as dehumanizing and consequential.

Supplemental Material

The online supplemental material is available at http://spps.sagepub.com/supplemental.

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