

Beyond bias: Response bias and interpersonal (in)sensitivity as contributors to race disparities

E. Paige Lloyd

University of Denver

&

Kurt Hugenberg

Indiana University

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Corresponding Author: E. Paige Lloyd

Abstract

In the present work, we review a growing program of research identifying deficits in race-based interpersonal sensitivity, specifically emotion detection, as a route to creating pitfalls in interracial interactions and generating race-based disparities. Most existing research examining race disparities takes a *bias* perspective – focusing on how stereotypes and prejudice can make judgments more positive or negative as a mechanism underlying race-based inequality. We review this literature, while also providing evidence that differential *sensitivity* – more acutely reading cues and signals of ingroup and majority group members than outgroup and minority group members – can also serve as a mechanism underlying race-based discrimination. We propose that an integrated perspective encompassing sensitivity and response bias as routes to intergroup inequality may offer researchers a novel approach to existing intergroup questions as well as a generative perspective on intergroup research programs.

Beyond bias: Response bias and interpersonal (in)sensitivity as contributors to race disparities

Research in recent decades is replete with examples of race-based disparities. Educators are more likely to suspend students (Department of Education, 2018; National Center for Education Statistics, 2010), juries and judges are more likely to punish defendants (Blair et al., 2004; Eberhardt et al., 2006), and doctors are less likely to effectively treat patients (Bonham, 2001; Green et al., 2003; Smedley & Nelson, 2003) who are Black as compared to White. The causes of such varied disparities are certainly multiply determined. However, the traditional perspective in social psychological intergroup research is a *perceiver bias* account. In essence, models of such real-world disparities focus on how perceivers hold negative stereotypes about or prejudices toward people of color, relative to Whites, a perspective that dates at least to Allport's (1954) foundational work on stereotyping and prejudice. As we outline below, evidence for this *bias perspective* is robust, with experiments reliably showing that, perceivers often judge people of color more harshly, all other things being equal (Dovidio & Gaertner, 2000).

However, we argue that such intergroup disparities can also be understood from a *sensitivity* perspective as well. In the present work, sensitivity refers to the ability to correctly decipher a target individuals' inner states (e.g., ability to accurately classify an individual's emotional state). For example, the ability to distinguish between students' disinterest and confusion, between defendants' honesty and deceit, or between patients' mild discomfort and intense distress are examples of sensitivity. Indeed, the literature on interpersonal sensitivity, focusing perceivers' accuracy in judging others' from non-verbal cues (Hall et al., 2005), is also longstanding and well-established. Interpersonal sensitivity appears correlated with a number of positive traits (e.g., conscientiousness, mental adjustment) and predicts successful interpersonal interactions across numerous domains (e.g., education, medicine, sales; Schmid Mast & Hall,

2018). Although this literature often focuses on individual differences in interpersonal sensitivity (Nowicki & Duke, 1994), or on perceiver accuracy with scarce information (Ambady & Rosenthal, 1993), interpersonal sensitivity is often acutely problematic across racial lines (Bailey et al., 1998; Friesen et al., 2019; Gray et al., 2008; Lloyd et al., under review; Lloyd, Hugenberg, et al., 2017; Weathers et al., 2002). From this perspective, intergroup disparities may also have their roots in such *sensitivity* deficits.

We argue that race-based decision biases *and* differential sensitivity to social cues across race can both contribute to race-based disparities. We believe that considering both bias and sensitivity as mechanisms for intergroup disparities can provide a generative perspective on the causes for such disparate outcomes. For example, consider why doctors commonly treat White patients' pain more aggressively than Black patients' pain (Green et al., 2003). From a *bias perspective*, this differential treatment could be due to doctors' biases surrounding toughness (Hoffman et al., 2016) or drug abuse (Moskowitz et al., 2012). These mechanisms share a decision bias to treat Black patients' pain less aggressively than White patients' pain.

Yet, a *sensitivity deficit* may also play a role here. Perhaps (primarily White) doctors are also worse at reading Black patients' pain expressions. If doctors have difficulty, for example, discriminating between expressions of mild and severe discomfort amongst Black patients, this could lead doctors to miscalibrate treatments to actual pain levels of Black patients, or provide ineffective treatments entirely. Thus, a sensitivity account may enable simultaneous explanations of both under- and *over*-treatment effects. To this point, Black patients are subjected to higher rates of unnecessary surgery (Lee & Ko, 2009) and are prescribed more butalbital drug treatments for migraines (an inappropriate treatment) than White patients (Schpero et al., 2017).

Many real-world racial disparities, ranging from differential student punishment to differential patient treatment, may have their roots in the simultaneous action of judgment biases and interpersonal (in)sensitivity. Based on this, we argue that our theories of intergroup relations would benefit from a fuller consideration of both bias and sensitivity. The goal of this article is to illustrate, using our own and others' research, the utility of considering both response bias and sensitivity in investigations of intergroup disparities.

Overview of the Article

We focus primarily on sensitivity and bias in interpreting non-verbal emotion displays in interpersonal contexts. This focus is both practical and theoretically meaningful. Emotions can provide information about others' intentions, characteristics, and likely behaviors (Anderson & Thompson, 2004), and when successfully decoded, can direct appropriate perceiver action (Feinberg et al., 2012; Marsh et al., 2007). Further, emotional sensitivity is important in interpersonal contexts that have shown reliable intergroup deficits, such as empathy and relationship interest and success (Carton et al., 1999; Marsh et al., 2007). Finally, both sensitivity and bias influence interpersonal decisions. Within the domain of sensitivity to emotion, we make a key distinction between the emotional intent (e.g., determining that expression is happy) and its authenticity (i.e., determining whether it is a real or a faked smile). A physician must both identify patients' expression as pain while also deciding whether the expression is authentic.

We also focus primarily on White-Black race relations in this work. This focus is again both practical and meaningful. Among the global research community, Black-White race relations have received the greatest attention. Our review follows this broader trend, but we also consider how a broader perspective on emotion perception may be valuable in future research at the conclusion of this article. Further, this focus on Black-White discrepancies is meaningful

given the ample evidence of systematic and pervasive anti-Black treatment, particularly in Europe (e.g., Stafford, 2017; Taylor, 2017) and North America (Quillian et al., 2017).

We organize our article into three sections. In Section 1, we argue for a *Signal Detection Perspective* in understanding intergroup relations; perceivers' bias and sensitivity are separable and meaningful in intergroup relations. In Section 2, we discuss advances in the intergroup literature supported by bias and sensitivity accounts. We review research that has considered both sensitivity and bias accounts of intergroup phenomena to illustrate their roles in extending theory. Finally, in Section 3, we discuss how incorporating sensitivity and bias may provide both a meaningful synthesis of intergroup findings and suggest novel intervention strategies for intergroup disparities. We end by discussing limitations of the current perspective.

Sensitivity and Bias as Separable Routes to Intergroup Disparities

In making decisions, sensitivity and bias are both conceptually and statistically separable. This distinction between perceptual sensitivity and decision biases is a classic perspective in psychophysics, and is captured statistically in Signal Detection Theory (Green & Swets, 1966; Lynn & Barrett, 2014; Macmillan & Creelman, 1991), which characterizes decision making under uncertainty. Signal detection analyses work to dissociate sensitivity, or the ability to discriminate between two classes of stimuli, from bias, which reflects proclivities to use a specific response. Signal detection analyses are commonly used when aiming to calculate sensitivity and response bias in dichotomous choice tasks. For example, in a pain detection paradigm where participants must determine whether a pain expression is real or fake, response bias (e.g., c ; greater use of the fake relative to the real response option) can be calculated by summing standardized false alarms (e.g., incorrect labeling of real pain as fake) and standardized hits (e.g., correct identifications of fake pain) and then dividing by -2. Sensitivity (e.g., d') can be

calculated by subtracting standardized false alarms from standardized hits. Thus, in these analyses, sensitivity is a metric of discrimination ability controlling for response bias.

Consider our previous example of how bias and sensitivity perspectives may help explain why doctors treat White patients' pain more aggressively than Black patients' pain. A bias perspective argues that, under uncertainty, doctors assume Black individuals are not really in pain. However, a sensitivity perspective proposes that White doctors may easily see the difference between weak and strong pain expressions on White individuals' faces, but have difficulty making this distinction on Blacks individuals' faces. This may lead not only to less pain treatment for some Black patients, but inaccurate treatment (treating the wrong patients). Finally, sensitivity and bias effects can co-exist, with the doctor being both worse at reading Black patients' pain (a sensitivity effect) and under-treating Black patients (a bias effect).

Here, we build on extensive past work in psychology that focuses on these processes of bias and accuracy, recognizing that our perspective is not unique. For example, the Gibsonian ecological approach relies on perceivers' accurately detecting affordances in the environment, as well as perceiver tendencies to over or under-perceive certain affordances (Gibson, 1979). Brunswik's Lens Model (1955) examines questions of cue validity and cue utilization with clear implications for accuracy and response biases in judgment. Similarly, West and Kenny (2011) present the Truth and Bias (T&B) model of judgement which incorporates aspects of Gibsonian, Brunswikian, and signal detection approaches and can be used to consider a wide variety of questions surrounding the roles of accuracy and bias in human judgment. West and colleagues (West, Dovidio, & Pearson, 2014; West, Magee, Gordon, & Gullett, 2014) have applied this framework to understanding the roles of similarity and anxiety in interracial interactions and relationships. More recently, Axt and Lai (2019) have adopted a similar perspective,

investigating how reducing noise (increasing sensitivity) and reducing decision bias can influence discrimination. Whereas the current work does not provide a novel statistical framework for considering accuracy and bias (see West et al., 2014), we instead illustrate the utility of these existing techniques in extending our understanding of intergroup disparities.

Evidence for Decision Bias and Sensitivity Accounts of Group Disparities

Decision Bias as a Root of Race-Based Disparities

As noted above, there is a generous literature in social psychology demonstrating that target race *biases* person judgments, typically disadvantaging Black relative to White individuals. Perhaps the most prevalent explanation asserts that negative stereotypes about and attitudes toward Black individuals predict anti-Black biases across numerous domains (e.g., Blair et al., 2013; Correll et al., 2007; Graham & Lowery, 2004). Although, evidence that decision biases negatively impact Black individuals is robust, there is a smaller literature documenting pro-Black biases by non-Black perceivers (Harber, 1998; Lloyd, Hugenberg, et al., 2017; Mendes et al., 2002). These pro-Black decision biases typically result from prejudice correction, or deliberative attempts to correct for racial bias (Plant & Devine, 1998; Wegener et al., 2006). Below, we consider race-based decision biases in the realm of emotion perception.

Stereotypes and Prejudice as Sources of Response Bias

Work from our lab and others suggests racial stereotypes and prejudices can bias perceivers' interpretation of emotional facial expressions (Bijlstra et al., 2014; Hugenberg, 2005; Hugenberg & Bodenhausen, 2003; Kawakami et al., 2017). For example, Hugenberg (2005; Study 1) found that target race influences the speed with which perceivers recognize emotional expressions. In this study, 22 White perceivers viewed and categorized the emotional expressions of Black and White computer-generated targets displaying happy and angry expressions.

Perceivers were significantly faster at recognizing angry expressions on the faces of Black as compared to White targets, however happy expressions showed the opposite pattern. This reversal is important, because it indicates that perceivers are not simply better at discriminating happy from angry expressions for one target race (a sensitivity effect). Instead, it suggests that perceivers are biased toward responding more readily to one expression (e.g., anger) expressed by targets of a particular race (e.g., Black). Thus, this work indicates that responses in the emotion perception task are biased by racial stereotypes or prejudice in a way that affects their *response thresholds* and thereby task performance.

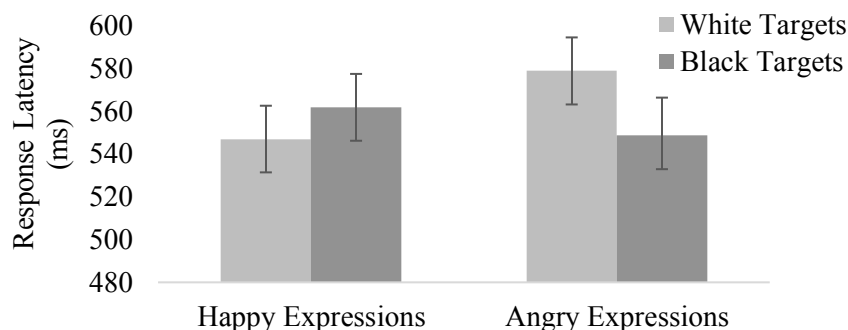


Figure 1. Hugenberg (2005) Study 1 (N=22) results depicting the interactive effect of target race and emotional expression on expression categorization latency. Error bars depict standard error.

Additional work from our labs examined how perceivers' explicit and implicit racial attitudes factor into decision biases in emotion perception (Hugenberg & Bodenhausen, 2003). In this research, 24 White perceivers watched videos in which Black and White faces morphed from angry to happy (anger offset; Study 1) or neutral to angry (anger onset; Study 2). Across the two studies emotional change differed in direction (i.e., offset vs. onset) as well as valence contrast (i.e., positive vs. neutral expression). The change in direction, allowed us to rule out an alternate explanation that slower response times could be due to greater indecision or weaker sensitivity for Black faces (relative to White faces), rather than a perceptual bias in perceivers

recognition threshold of anger. During the morph presentation, participants indicated the point at which they saw the angry expression leave the target's face (anger offset; Study 1) or appear on the target's face (anger onset; Study 2). Participants then completed measures of explicit (i.e., a feeling thermometer assessing warmth toward African Americans) and implicit racial prejudice (i.e., race implicit associations test; IAT). Results in both studies indicated that perceivers' implicit prejudice predicted their anger perception threshold for Black but not White targets. Here again, target race biases emotion perception in ways consistent with stereotypes and prejudices.

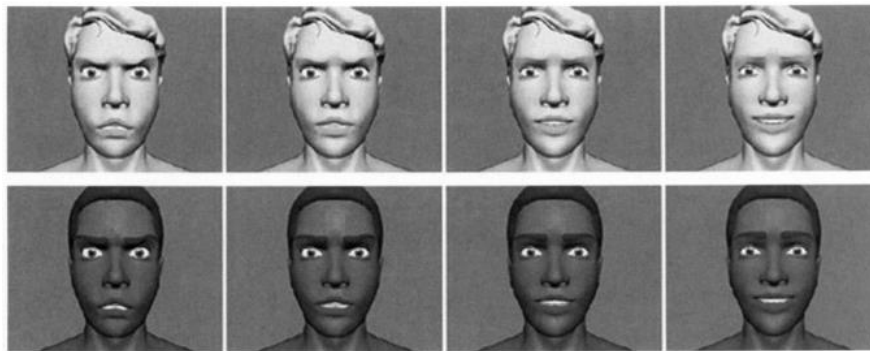


Figure 2. Example stimuli from Hugenberg and Bodenhausen (2003). Stimuli were viewed by White perceivers (N=24) in sequence and judged on anger offset (Study 1) and anger onset (Study 2). Reprinted from "Facing Prejudice: Implicit Prejudice and the Perception of Facial Threat," by K. Hugenberg and G.V. Bodenhausen, 2003, *Psychological Science*, 14, p. 641. Copyright 2003 by the American Psychological Association.

Recent evidence conceptually replicates these findings with teachers viewing the faces of children. Halberstadt and colleagues (2018) had pre-service teachers view brief videos of Black and White children's faces changing in expressions of emotion, including expressions of happiness and anger. When teachers made errors in judgments, they showed a stereotype consistent pattern: Black children (and especially Black boys) were more likely to be interpreted as angry, relative to White children. Further, this Black-anger link predicted the tendency for teachers to judge Black children's misbehavior as hostile in intent.

Although the work above focuses on Whites' perceptions, these effects are not unique to majority group members. Stereotypes and race-based motives also bias Black perceivers' decisions in emotion perception tasks (Kunstman et al., 2016; Lloyd, Kunstman, Tuschere, & Bernstein, 2017) in ways consistent with stereotypes of Whites as prejudiced (Vorauer et al., 2000). Indeed, Kunstman and colleagues (2016) demonstrated that Black perceivers evaluate Whites' smiles as more threatening and disingenuous to the extent that they distrust Whites' motives for behaving positively toward minority group members. In this study, 108 Black participants rated the extent to which images of Black and White smiling targets appeared threatening. Participants also completed the Suspicion of Whites' Motives Scale (Major et al., 2013) assessing the extent to which they believed that Whites conceal bias via effusive positivity. Black participants relatively more suspicious of Whites' motives evaluated White targets' (but not Black targets') smiles as more threatening. A recent extension of this work (Lloyd, Kunstman, et al., 2017) examined Black participants' mental representations of Whites (Study 1) and their smiles (Study 2) using reverse correlation methodology (see Dotsch & Todorov, 2012). In this research, Black participants (Study 1 N=35; Study 2 N=47) generated visual representations of a prototypical White man (Study 1) and a prototypical smiling White man (Study 2a). Black participants who were more suspicious of Whites' motives generated mental representations of Whites' smiles that seemed less authentic and less trustworthy to naïve raters (Study 1 N=113; Study 2 N=134).

There is debate in the literature as to whether such racial biases are due to stereotypes or prejudices. These accounts are not mutually exclusive, with both arguments receiving empirical support. Supporting the stereotype argument, Bijlstra and colleagues (2010, 2014) replicated a similar pattern of data with White Dutch participants, finding speeded responses for angry

Moroccan faces (a group in the Netherlands stereotyped similarly to Black individuals in the U.S.), and that the magnitude of this angry-Moroccan link was predicted by a specific stereotypic association between Moroccan and angry. However, supporting the valence argument, Hugenberg (2005) found that Whites' recognition of both angry and sad expressions was facilitated on Black faces. Similarly, Hugenberg and Bodenhausen (2003) found that omnibus implicit prejudice (a valence measure) predicted the magnitude of the Black-anger association. Further, even experimentally created outgroups (with no prior stereotypes) are interpreted as angrier than experimentally created ingroups (Dunham, 2011), supporting a prejudice account.

Understanding whether response biases are the result of prejudice or stereotypes may also aid in predicting whether such effects will differ across perceiver race. Stereotype effects are often culturally determined. Thus, when White and Black perceivers originate from the same culture, they often hold the same stereotypes. For example, recent research from our labs indicates both Black and White Americans ($N=276$; 126 Black, 150 White) believe Black people experience less social pain than White people, following the same painful events (e.g., death of a grandparent; Deska, Kunstman, Lloyd, Almarz, Bernstein, Gonzales, & Hugenberg 2020, Study 3). Here, perceivers viewed images of Black and White targets and estimated the emotional pain felt in response to various social painful events, with both Black and White participants showing similar effects – theorized to result from shared stereotype knowledge. However, when biases result from prejudice, perceiver race should moderate bias. Indeed, ingroup favoritism is well-established in social psychology (an effect particularly pronounced in explicit judgments; Tajfel & Turner, 1986). For example, Lazerus and colleagues (2016) document a positivity bias in judging ingroup members' emotional expressions. Thus, in emotion judgment biases driven by prejudice, we might expect Black and White individuals to show quite different, even opposite,

patterns of responding. However, it is also worth noting in-group favoritism effects tend to be stronger among majority or dominant as compared to minority or subordinate group members (Dasgupta, 2004). Whether caused by stereotypes or prejudices, what is clear is that these emotion effects outlined above are race-based *decision bias* phenomena.

Prejudice Correction as a Source of Response Bias

Societal norms to avoid prejudice can also affect decision biases, engendering *prejudice correction*. Many White people wish to be (Plant & Devine, 1998) or to appear non-prejudiced (Crandall & Eshleman, 2003; Plant & Devine, 1998; see Richeson & Shelton, 2007 for a review), which can result in overtly positive responses toward minority group members (Dovidio et al., 1997). For example, White evaluators often rate weak essays more positively when the author was a Black than a White student (Harber, 1998).

Our work indicates that prejudice correction can also generate decision biases in emotion perception. We investigated the role of prejudice correction in truth versus lie judgments (Lloyd, et al., 2017), focusing on biases in *authenticity*, rather than intent. In Study 1, 76 White perceivers watched videos of Black and White targets telling truths and lies about their close relationships (Lloyd et al., 2019). Participants were tasked with judging whether videos depicted truths or lies, indexing participants' decision biases across target race. We also assessed participants' prejudice control motives via the Internal and External Motivation to Respond Without Prejudice measure (Plant & Devine, 1998). We found that White perceivers, especially those motivated to respond without prejudice, strategically corrected their anticipated racial bias when responding to Black targets; White perceivers exhibited greater use of the truth response option relative to the lie response option (i.e., a greater *truth bias*) for Black as compared to White targets. Further, as White participants became more concerned with correcting for racial

bias, they became less likely to label Black targets as liars, further supporting a prejudice correction explanation. These findings were replicated across 4 additional studies (Study 1b N=65; Study 1c N=86; Study 2 N=118; Study 4 N=58) using similar methodology (Figure 3).

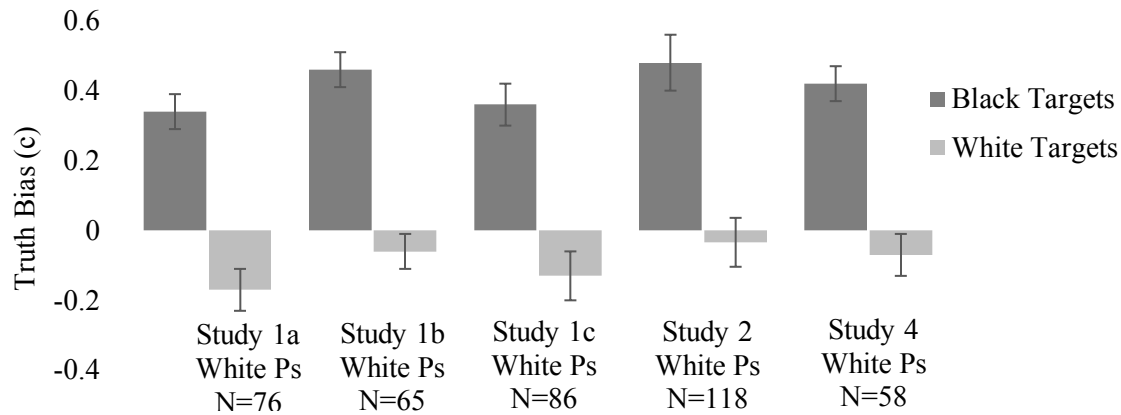


Figure 3. Studies from Lloyd and colleagues (2017) depicting White perceivers *truth bias* – greater use of truth responses (indexed by criterion) – for Black targets relative to White targets. Error bars indicate 95% confidence intervals.

In Study 3 (N=68) White participants reacted to the exact same audio differently when it was paired with either a White or a Black purported speaker. Here, the same statement was labeled as a “truth” more often when ostensibly spoken by a Black than a White speaker. In a final study (Study 4 N=118), eye tracking methodology demonstrated this bias was likely due to correction. Despite overtly showing a truth bias for Black relative to White targets, White perceivers looked more quickly at the “lie” response onscreen for Black speakers than for White speakers. Thus, although their initial impulse was to look at the stereotype congruent (lie) response, their ultimate decision was to correct for that bias.

Taken together, these data indicate that emotion authenticity judgments can be biased by attempts at prejudice correction. Although pro-Black decision biases can exist, these decision biases are constrained by participants’ motivation to control biases, and the controllability of the

behavior or judgment. There are many people who will not correct bias and many contexts in which even motivated perceivers cannot do so.

How Response Biases in Emotion Judgments Can Drive Race-Based Disparities

Decision biases in emotion judgments is a well-established cause of intergroup disparities. If White people tend to interpret Black individuals' non-verbal behavior as hostile rather than as friendly, and if Black people are (sometimes accurately) suspicious of Whites' motives and believe Whites' smiles are disingenuous, this combination could make cross-race interactions fragile. Indeed, intergroup interactions are vulnerable to even minor perturbations that intragroup interactions easily overcome. For example, Pearson and colleagues (2008) demonstrate that subtle disruptions (i.e., delays) in audiovisual feedback during a virtual conversation led to increased anxiety and decreased interest in interaction in interracial but not same-race dyads.

These biases in judging expressions can also generate disparities in treatment. As noted above, Halberstadt and colleagues (2018) find that teachers' biases to judge Black children as angry correspond with their tendency to perceive Black children's actions as hostile, a judgment that has real implications for disparities in school suspensions (National Center for Education Statistics, 2010) and educational achievement gaps (Morris & Perry, 2016). Similarly, anti-Black biases manifest in medical care inequities across race (Penner et al., 2013). For example, Mende-Siedlecki and colleagues (2019) document that White perceivers have a higher threshold for perceiving pain expressions on the faces of Black than White targets, which predicts disparate pain treatment recommendations. Race-based pain treatment inequity is a pernicious health concern (Bonham, 2001; Green et al., 2003; Pletcher et al., 2008).

Ironically response biases generated by prejudice correction may also contribute to inequalities across race. For example, Harber (1998) indicates that White evaluators are more

lenient toward Black as compared to White student essays. Although, this positivity toward Black students' work may seem innocuous, critical feedback is essential to learning and growth (Van den Bergh et al., 2014). Consistent with this, Black students have worse educational outcomes than White students (Higher Education Statistics Agency, 2019). Such effusive positivity is also attributionally ambiguous, making it unclear whether the positivity is genuine or dissembling. Because of this, positive feedback from White people can ironically reduce Black individuals' self-esteem (Crocker et al., 1991) and trigger threat responses (Mendes et al., 2008). This appears particularly true for minority group members who question Whites' motives (Major et al., 2013). In combination, even White people's "positive" biases clearly disadvantage Black individuals psychological, physical, and educational outcomes, while simultaneously creating barriers for successful interracial interactions.

Interpersonal Sensitivity as a Root of Race-Based Disparities

We also argue that *sensitivity deficits* can generate racial disparities. In essence, deficits in reading or interpreting non-verbal behavior across race can also create systematic problems. Although the literature on race-based sensitivity deficits is smaller than the decision bias literature, several programs of research provide evidence for either *own-race advantages* in emotion perception (Bailey et al., 1998; Friesen et al., 2019; Gray et al., 2008; Trifiletti et al., 2017; Weathers et al., 2002, 2004), or *majority group advantages* in emotion perception, whereby perceivers are more sensitive to the emotional cues of majority groups (Elfenbein & Ambady, 2002; Lloyd, Hugenberg et al., 2017; Lloyd et al., under review). Such differential sensitivity across groups can also play a role in racial disparities.

Numerous lines of work support the presence of an ingroup advantage in emotion perception (Bailey et al., 1998; Elfenbein & Ambady, 2002a, 2002b; Friesen et al., 2019; Gray et

al., 2008; Thibault et al., 2006; Weathers et al., 2002, 2004; Young & Hugenberg, 2010).

Generally speaking, individuals are better at identifying emotional displays or recognize the authenticity of emotional displays exhibited by ingroup members relative to outgroup members. As this article focuses on race, we focus primarily on own-race advantages. As one example, Gray, Mendes, and Brown (2008) recruited Black and White participants to view videos of own-race and cross-race targets who were recorded completing speech and arithmetic tasks in a stressful situation. Targets' saliva samples were collected enabling a measure of cortisol. Own-race observers more accurately recognized cues of both global anxiety and vocal tension relative to cross-race observers. Further supporting this own-race accuracy, observers' judgments of global anxiety positively corresponded with own-race targets' cortisol levels. However, cross-race judgments of target anxiety were *negatively* correlated with targets' cortisol levels, indicating that perceivers did not miss the cues, but instead entirely misinterpreted them.

In addition to own-race advantages, there is also evidence for a sensitivity advantage for majority race *targets* in emotion perception. Put simply, people tend to exhibit better sensitivity for majority group targets than minority group targets. In the case of race, these effects emerge as greater interpersonal sensitivity for White as compared to Black individuals, regardless of the perceiver's own racial identity. For example, Tuminello and Davidson (2011) examined White and Black children's (aged 3-7) emotion recognition accuracy for Black and White adults. Both White and Black children showed greater emotion accuracy for White targets, across multiple expressions. Consistent with this, Elfenbein and Ambady (2002) documented that when majority and minority groups originated from a single nation, 64% of minority groups showed an outgroup-advantage in favor of the cultural majority group instead of an ingroup-advantage in emotion recognition.

Thus, there is existing evidence that race can influence performance in emotion perception. However, there is debate as to whether an own-race advantage or majority race advantage is more common. This inconsistency in the data is in part attributable to design choices. Many research programs have failed to fully cross participant and target race, limiting the strength of conclusions. For example, Weathers and colleagues (2004) found White perceivers deciphered vocal expressions from White targets more quickly than did Black perceivers. Authors often describe such effects as due to an ingroup advantage. However, in actuality it is ambiguous whether they are own-race advantages, majority race advantages, or some combination because of the lack of a fully crossed design.

Our work adds to this literature providing evidence for race-based sensitivity effects in emotion judgements (Friesen et al., 2019; Kunstman et al., 2016; Lloyd et al., under review; Lloyd, Hugenberg et al., 2017). Moreover, our research programs discussed below employ Black and White perceivers as well as Black and White targets (in at least a subset of studies) enabling clarity as to whether effects should be interpreted as own-race or majority-race advantages.

One line of work examines race effects in smile authenticity (Friesen et al., 2019). In Study 1, 62 White perceivers viewed images of White and Black targets exhibiting Duchenne (“true”) and non-Duchenne (“false”) smiles. Perceivers then rated the apparent happiness of the face. Notably, White perceivers made greater happiness ratings of Duchenne versus non-Duchenne smiles for White as compared to Black targets, suggesting White perceivers were better able to discern smile authenticity from White as compared to Black targets. Study 2 (N=67 non-Black perceivers) replicated this finding with computer generated emotional expressions. Importantly, in Study 3, Black participants (N=68) were recruited to examine smile authenticity sensitivity among minority group perceivers. Critically, Black participants *did not* show race-

based sensitivity effects in smile authenticity. Instead they showed equivalent ability to discriminate between true and fake smiles for White and Black targets. This suggests an attenuation of the own-race advantage for Black relative to White participants, a point to which we return below.

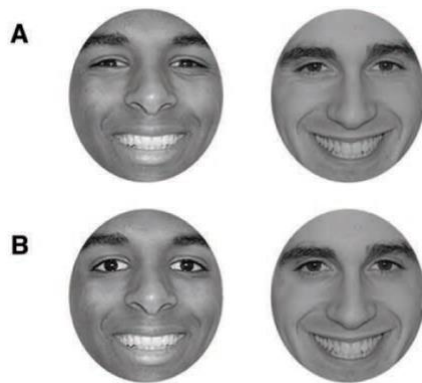


Figure 4. Examples of true (A) and false smiles (B) smiles on both Black and White faces. Adapted from " Perceiving happiness in an intergroup context: The role of race and attention to the eyes in differentiating between true and false smiles.," by J. P. Friesen and colleagues, 2019, *Journal of Personality and Social Psychology*, 116, p. 379. Copyright 2019 by the American Psychological Association.

We have also examined the effects of race on deception detection judgments (Lloyd, Hugenberg, et al., 2017). As above, perceivers viewed videos of Black and White targets telling truths and lies about their close relationships. In Studies 1a (N=76), 1b (N=65), 1c (N=86), and 4 (N=58) White participants exhibited better lie detection sensitivity for White than Black targets. In Study 2, we found both Black (N=123) and White perceivers (N=118) showed the same effects, indicating that this race-based sensitivity effect is best described as a majority race advantage. Mirroring these findings, our forthcoming research on pain authenticity detection (Lloyd et al., under review), finds nearly identical results. Online, college student, and medical provider participants viewed either videos or still images of Black and White targets who were genuinely experiencing pain or faking injury. Across these studies, a majority group advantage in

pain detection was observed whereby both Black (N=79) and White (N=976) perceivers struggled to discern real from fake expressions of pain for Black relative to White targets.

These race effects are theorized to result from the confluence of perceivers' greater perceptual expertise with ingroup and majority group members, as well as their greater motivation to attend closely to ingroup and majority group faces. Elfenbein and Ambady's (2002a, 2003) dialect theory bears directly on perceiver expertise. Indeed, data driven methodologies suggest noteworthy differences in mental representations of even basic emotions cross-culturally (Jack et al., 2012a; Jack et al., 2012b). These differences in emotion expression across cultures lead to an ingroup advantage in decoding emotion (Elfenbein & Ambady, 2002b). In their meta-analysis of 87 articles, Elfenbein and Ambady observed support for an ingroup advantage. Own-culture emotion recognition was on average 9.3% more accurate than cross-cultural emotion recognition. Furthermore, when controlling for cross-cultural exposure, there was no longer a difference between emotion recognition between cultural ingroups and outgroups. Supporting this, Bailey and colleagues (1998) showed that when Whites' contact with African Americans was controlled, White perceivers' ingroup advantage was eliminated.

This expertise explanation also aids in understanding why Black perceivers in our work (Friesen et al., 2019; Lloyd et al., under review; Lloyd, et al., 2017) showed equivalent performance for Black and White targets or even greater performance for White over Black targets. Many White individuals avoid interracial interactions (Plant & Devine, 2003). However, given the demography of North America and Europe, it is much more difficult for Black people to avoid interactions with White people. Elfenbein and Ambady (2002b) show that the ingroup advantage in emotion sensitivity was less pronounced among minorities groups within a culture;

numeric minority groups show outgroup advantages in emotion recognition in 64% of cases reported (evidence for a majority group advantage).

Other work suggests intergroup motives can also foster ingroup advantages in emotion recognition. For example, Young and Hugenberg (2010) demonstrated that even minimal group distinctions can be sufficient to generate ingroup advantages in expression perception. In one study, 23 White participants were given bogus feedback indicating they had either a “red” or “green” personality type. Participants then completed an emotion recognition task where White target faces were displayed on either a red or green background, ostensibly indicative of the targets’ personality type. An ingroup advantage in emotion recognition was found, despite the fact that target faces were of the same-race as participants, and were randomly assigned to group membership. This motivation to attend to ingroup targets is likely further amplified in interracial interactions. Indeed, interracial interactions inspire considerable anxiety (Plant & Devine, 2003); White individuals are frequently worried about being perceived as racist (Vorauer & Kumhyr, 2001) and Black interaction partners are concerned with discrimination (Shelton et al., 2005). Intergroup anxiety researchers have argued that intergroup anxiety can disrupt attention and deplete resources (Richeson et al., 2005; Wilder, 1993). This anxiety can thereby compromise interracial interaction success and sensitivity to others’ cues by focusing attention on one’s self rather than one’s interaction partner (Easterbrook, 1959).

Intergroup motives are also theorized to affect *how* perceivers attend to targets. Kawakami and colleagues (2014) find that perceivers attend more to the eyes of ingroup members. Insofar as the eyes are an information rich face area, this can improve expression perception. Supporting this, Study 5 (N=41) of the Friesen and colleagues (2019) work leverages eye tracking methodology during the smile authenticity task to demonstrate that Whites’ superior

sensitivity for White targets' smile authenticity (relative to Black targets) is mediated by visual attention to eye regions. When White participants were experimentally induced to attend to the eyes of Black targets (by removing all other facial cues) in Study 6 (N=121), the effect of target race on smile authenticity sensitivity was eliminated. Further, people attend more to information delivered by majority group members (Mackie, 1987) and attend to the faces of high-status targets more than low-status targets (Ratcliff et al., 2011). Thus, it is understandable that Black perceivers may not show own race advantages to the same extent as White perceivers.

Our other recent research has indicated that individual differences in perceivers' race-related motives moderate own-race advantages in emotion authenticity judgments. Specifically, Kunstman and colleagues (2016; Study 3) examined Black (N=27) and White (N=27) perceivers' ability to discern between White's Duchene and non-Duchene smiles, while also measuring these participants' Suspicion of Whites' Motives (Major et al., 2013). At low-levels of suspicion, Black perceivers were less sensitive to Whites' authenticity than were control White perceivers – suggestive of an own-race advantage. However, at relatively high-suspicion Black perceivers performed comparably to White perceivers – indicating no own-race advantage. Minority group members may be motivated to attend to majority group members as this attention may be useful in sussing out true egalitarians from biased individuals (LaCosse et al., 2015).

To summarize, race is implicated in sensitivity to others' expressions. Both own race advantages (Bailey et al., 1998; Gray et al., 2008; Weathers et al., 2004) and majority race advantages (Elfenbein & Ambady, 2002a; Lloyd, Hugenberg et al., under review; Lloyd, et al., 2017; Tuminello & Davidson, 2011) exist in the literature. Evidence for the own-race advantages is extremely robust for White perceivers, but mixed for Black perceivers (Friesen et al., 2019; Kunstman et al., 2016; Lloyd et al., under review; Lloyd, Hugenberg, et al., 2017). The most

likely cause for this is that minority group members are more likely to have contact with outgroup members and they have unique motives for attending to outgroup members (e.g., vigilance for bias; power differentials). The perspectives of minority group members have often been underrepresented in intergroup dynamics research, and we believe this contributes to the seemingly inconsistent nature of interpersonal sensitivity effects across race. We also believe this is a fruitful avenue for future research. Focusing only on White individuals' interpersonal sensitivity, or majority groups broadly, we neglect half of the dyad, and the complex motives that influence intergroup interactions (Bergsieker et al., 2010; Saguy & Kteily, 2014).

How Sensitivity in Emotion Judgments Can Drive Race-Based Discrepancies

Perhaps our most novel argument is that race-based deficits in interpersonal sensitivity are an important factor in intergroup inequality. Above, we provide evidence that race impacts interpersonal sensitivity. For example, Gray and colleagues (2008) provide evidence that same-race observers ratings of target anxiety positively correspond with targets' fluctuations in cortisol during a stressful task; however, for cross-race observers the effect reversed. This reversal is indicative of cross-race perceivers' misunderstanding of target experience.

Further, failures to be sensitive to the emotional tenor of others can undermine interactions. Consistent with this supposition, interracial interactions tend to be more tense or anxiety provoking (Shelton et al., 2010; Trawalter et al., 2009), less satisfying (Bergsieker et al., 2010), and more depleting (Richeson et al., 2005) than same-race interactions. In the case of anxiety, if a White perceiver fails to recognize their Black friend's stress and anxiety, they will fail to adequately support their friend. The ability to accurately recognize other emotions is critical to relational success (Carton et al., 1999). This insensitivity to emotional intent and authenticity can also undermine relationships in other important domains that require face-to-

face interpersonal contact, like the teacher-student bond in education or the client-therapist alliance in psychotherapy. For example, therapists with greater emotional sensitivity demonstrate better patient outcomes and lower patient drop-out rates (Kaplowitz et al., 2011). Insofar as race-based sensitivity deficits undermine this relationship, disparate psychological health outcomes are likely. In support of this argument, some evidence suggests that White therapists tend to be less effective for Black clients than for White clients (Owen et al., 2012).

Although the case that interpersonal insensitivity can generate disparities by undermining key caregiver relationships seems plausible, few studies investigate this hypothesis directly. Our forthcoming work on sensitivity to pain authenticity (Lloyd et al., under review) examines this question, and offers some insight into the role of sensitivity in race-based health care disparities. In one study, 154 participants of various racial identities viewed images of Black and White soccer players expressing genuine pain (an actual injury) or fake pain (“flopping” to gain on-field advantage). Following each image, perceivers evaluated how much they believed the expression and also how much pain treatment they would recommend. Replicating our other work, perceivers appeared *insensitive* to the difference between Black targets’ real and fake pain expressions. Further, these disparities in pain perception predicted differential treatment accuracy. Perceivers recommended more treatment for White targets who were actually injured than for White targets fabricating pain. However, for Black targets, perceivers recommended equivalent treatment for real and fake pain expressions (Figure 5). This study also replicated past work demonstrating a *bias* (Bonham, 2001; Green et al., 2003; Hoffman et al., 2016; Trawalter et al., 2012) in which Black people were recommended less pain care than White targets. However, the effect size of the sensitivity effect across race was **10 times larger** than the effect size of bias

across race, illustrating the potential impact of interpersonal sensitivity in racial inequality and treatment disparities.

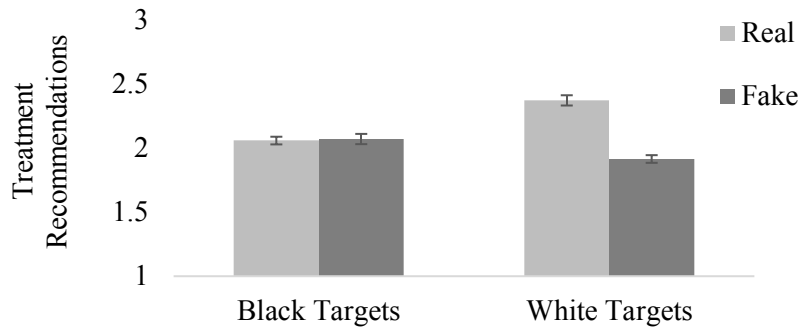


Figure 5. Graph depicting target race by expression veracity interaction on pain treatment recommendations (N=154) from Lloyd et al. (under review). Error bars indicate 95% CIs.

Finally, understanding sensitivity effects can also allow us to understand situations in which there are race disparities in the accuracy of care. When it comes to ineffective, inaccurate, cost-inefficient, or dangerous treatments, Black patients are often subjected to more not less treatment (Lee & Ko, 2009; Schpero et al., 2017). A sensitivity account predicts and explains just such erroneous treatment. Similarly, teachers' difficulty in accurately distinguishing the expressions of students in classrooms across race can make the task of discriminating between horseplay and actual fights a more difficult one, subjecting students to unnecessary suspensions or failing to protect them from predatory peers. Thus, we believe greater attention to sensitivity as a route to intergroup disparities offers a wealth of research opportunity and the possibility to extend our knowledge of racial inequality in numerous other domains, and we hope future research takes seriously the question of how sensitivity may drive intergroup discrepancies.

Integrating Bias and Sensitivity to Understand Intergroup Discrepancies

Considering sensitivity and bias as distinct mechanisms may provide a more thorough understanding of race disparities. First, this Signal Detection approach allows researchers to test

multiple putative mechanisms for the same apparent social concern. Again, take the example of pain care disparities in the United States (e.g., Pletcher et al., 2008). Researchers in social psychology have identified several bias oriented mechanisms. But these identified processes largely speak to discrepancies in amount of treatment administered by medical providers, with Black patients receiving less pain care than White patients. However, Black patients also receive less *accurate* treatment. By considering both sensitivity and response bias in pain judgments, we find both bias and sensitivity effects occurring across race lines (Lloyd et al., under review). This perspective sheds light on multiple, simultaneous paths to health disparities.

Second, this perspective may also highlight more nuanced interpretations of fundamental work in our field. For example, numerous programs of research have theorized or documented the prevalence of miscommunications and failures in cross-race interactions (Bergsieker et al., 2010; Demoulin et al., 2013; Oishi et al., 2010). These failures have often been explained by bias. However, considering perceiver (in)sensitivity could provide a more complete understanding of such failures. For example, Bergsieker and colleagues' (2010) work indicates that White people and minority group members enter interracial interactions with divergent goals: Whites with greater liking/morality goals and minority group members with greater respect/competence goals. These divergent goals impede interaction success. Interpersonal sensitivity deficits may also contribute to the observed effects. Given the same-race and majority group advantages in interpersonal sensitivity, White perceivers may struggle to discern their minority partner's goals in cross-race interactions. Thus, not only are there divergent goals, but insensitivity to partners' goals could compound across racial boundaries magnifying difficulties.

This perspective can also help identify points of intervention. For example, consistent with the literatures' current focus on bias, interventions for medical treatment disparities focus

on reducing physician prejudice (e.g., Burgess et al., 2007). However, it is unlikely these interventions can address deficits in treatment accuracy across race. Instead interventions that target sensitivity via improving expertise or attention are likely to be more effective (Busey & Parada, 2010). Training targeting increased practice and performance feedback can improve accuracy in interpersonal sensitivity tasks (Blanch-Hartigan et al., 2016). For example, providing performance feedback or training attention to diagnostic areas of the face (Galin & Thorn, 1993) can improve pain detection sensitivity. Adaptations of existing interpersonal sensitivity training programs (e.g., FACS coding; Ekman & Friesen, 1976) with consideration of diversity could provide fruitful avenues for intervention.

Extensions to Other Social Groups and Real-World Deficits

Although we have focused primarily on Black-White race relations, this Signal Detection perspective could be useful in understanding various intergroup contexts. Supporting the breadth of bias, there is extensive evidence documenting biases in emotion perception across a variety of groups. Broadly speaking, the trait-level stereotypes of groups (e.g., warm; weak) appear to engender biases in expression perception. For example, there is a robust bias to see happy expressions on the faces of women (Hess et al., 2004; Hugenberg, 2005; Lloyd et al., 2018; Zebrowitz et al., 2010) and gay men (Tskhay & Rule, 2015), two groups stereotyped as warm. Similarly, stereotypes of Asian and wealthy individuals as delicate or weak bias ratings of pain sensitivity, whereby Asian and rich people are perceived to experience greater pain than White and poor people, respectively (Lloyd et al., under review; Mende-Siedlecki et al., 2019).

Similarly, response bias resulting from prejudice correction likely varies dependent on focal group. Whereas concerns about appearing prejudiced appear acute for race (Plant & Devine, 1998), negative attitudes toward members of the Ku Klux Klan, prostitutes, or

alcoholics, are more freely expressed (Crandall et al., 2002). When considering the role of prejudice and prejudice correction in emotion perception, hypotheses should be adjusted based on prevalence of prejudice, as well as the normative acceptability of prejudice.

Turning to sensitivity, evidence of deficits in ability to discern emotions and emotional authenticity extends across multiple racial and ethnic groups (DeBusk & Austin, 2011; Reyes et al., 2018), cultures (Elfenbein & Ambady, 2002b), and even relatively minimal group identities (e.g., Beaupré & Hess, 2005; Thibault et al., 2006; Young & Hugenberg, 2010). However, the nature of these effects are inconsistent, with researchers providing evidence for ingroup advantages (Beaupré & Hess, 2005; DeBusk & Austin, 2011; Elfenbein & Ambady, 2002a; Young & Hugenberg, 2010) and majority group advantages (i.e., Lloyd et al., 2017, under review) described above. However, outside of race, additional patterns of effects have been observed including the subordination hypothesis (low status or minority group members are better detectors; Bjornsdottir & Rule, 2017; LaFrance & Henley, 1994; Murphy et al., 2010), and even effects whereby high-status or majority group perceivers are better detectors (Hall et al., 2005; Kang & Lau, 2013; Reyes et al., 2018). These variable effects create the impression of an inconsistent literature; however, consideration of the mechanisms theorized to impact cross-group sensitivity (expertise, intergroup motives) may offer continuity.

For example, groups with heightened contact likely gain skills or insight into discerning the emotions of outgroup members. Consistent with this argument people can be trained (via feedback) to better recognize outgroup emotions (Elfenbein, 2006), and groups with high contact tend to have greater similarity in emotional dialects (Elfenbein & Ambady, 2002a). Aside from expertise, groups with greater contact may experience greater motivation to attend to outgroup emotions. Thus, ingroup advantages would be expected in groups with relatively little contact,

but would be attenuated in high-contact environments. For example, Reyes and colleagues (2018) observe no ingroup advantage among South Asian and White Canadians residing in the greater Toronto area, a multicultural metropolis. Similarly, ingroup advantages are not typically observed across gender, another group distinction with high cross-group contact.

Considering both bias and sensitivity in expression perception could be useful in understanding various intergroup contexts and meaningful real-world deficits. However, not all groups are likely to show similar patterns of response bias or sensitivity as in Black-White race relations. Instead, hypotheses should be tailored to the social groups of interest and the broader cultural context (e.g., prejudice correction norms, stereotype content, cross-group contact). So long as researchers remain mindful of these nuances, an integrated model of sensitivity and response bias could offer value in the broader intergroup dynamic's literature.

But how might we be able to use such biases and sensitivity deficits across various ingroup/outgroup distinctions to understand real-world intergroup disparities? Here, we consider two medical treatment contexts involving pain care – the opioid epidemic and the under-treatment of women's pain. On the surface, these bear a clear resemblance, both involving doctors choosing who gets care. However, we find in our research that that sensitivity and bias may play *differing roles* in these two.

First, consider the unfolding opioid epidemic in the United States. A decade of chronic opioid over-prescription has led to widespread addiction, leading to 90 pre-mature deaths per day (Rudd et al., 2016). However, this problem is especially acute in impoverished communities (Ghertner & Groves, 2018). Obviously, limited access to more expensive care (e.g., surgery) that addresses long-term conditions rather than short-term pain matters. However, doctors' decisions play an important role here as well. One possibility is that impoverished individuals are seen as

highly sensitive to pain, and therefore are simply blanketed with opioid prescriptions. However, our recent evidence indicates that doctors hold cultural stereotypes of poor individuals as *tougher* than wealthy individuals (Summers et al., under review), suggesting that a bias explanation cannot explain such prescription errors. Instead, perhaps (relatively wealthy) medical doctors have difficulty accurately reading the pain authenticity of impoverished individuals, part of a broader difficulty of doctors to communicate effectively with poorer patients (see Willems et al., 2005), leading to unnecessary prescriptions. Our ongoing research is investigating how sensitivity may differ across socioeconomic status, but regardless of the outcomes, adopting a signal detection perspective can help researchers identify causes and plausible interventions.

Next, consider the often-reported experience of women who have their pain minimized by medical care providers and who otherwise fail to receive treatment for painful medical conditions (Dusenbury, 2018; Hoffmann & Tarzian, 2001). Here, both biases and sensitivity are important questions as well. Do doctors fail to perceive women's pain (a failure of sensitivity)? Do they see it but fail to take it seriously (a bias in judgment)? Although both mechanisms seem plausible, recent research from our laboratory suggests that a *bias* effect is the more likely culprit. We find that perceivers have no difficulty in accurately perceiving women's relative to men's pain (Lloyd et al., under review). However, both men and women are often more skeptical women's veracity (Lloyd et al., 2018; Lloyd, Paganini, & ten Brinke, 2020). Thus, it is likely that doctors notice the pain experiences of their female patients, but dismiss women's pain as overblown.

Limitations

In this article, we lean on Signal Detection Theory to provide terminology and illustrate the potential benefits of examining both perceiver bias and sensitivity as sources of race

disparities and intergroup tensions. However, it is important to note that there are limitations of this framework that do not make it an ideal methodological tool for all questions. First, signal detection approaches are best equipped for dichotomous judgements (e.g., real vs. fake; happy vs. sad), which is not well-suited for all questions in the intergroup literature.

Further, Signal Detection approaches have historically framed response bias and sensitivity as separable and even orthogonal in decision making. We have adopted this tradition in framing this article as well. However, Lynn and Barrett's (2014) utility-based approach to Signal Detection Theory enable consideration the potential relationships between sensitivity and bias (see also West and Kenny's Truth and Bias Model, 2011). For example, Lynn and Barrett (2014) argue that the relationship between sensitivity and bias is generated by weighting the utility of certain outcomes (e.g., making the consequences for false alarms or misses more salient) when considering the likelihood of errors. For example, we tend to slow down (a conservative bias) when walking in the darkness (a low sensitivity setting). Whereas the cost of an error remains constant (a stubbed toe always hurts), when the likelihood of errors increases, the bias changes. Consider the case of a doctor trying to decide whether a patient is feigning severe pain. If the provider is having difficulty "reading" the patient – perhaps due to intergroup deficits in sensitivity – the provider may select the "safe" option. In the context of an opioid epidemic, withholding controlled substances may be evaluated as the "safe" option, perhaps allowing us to understand race disparities in pain care that exist over and above other factors (e.g., prejudice, stereotypes). Thus, moving forward, it will be important to understand how perceivers' sensitivity may itself generate response biases across contexts (see Lynn et al., 2012).

In a similar vein, we argue that stereotypes, prejudice, and prejudice control influence response bias whereas expertise and motivation influence sensitivity. For ease of communication

we have framed these mechanisms as distinct. However, this is an over-simplification. These mechanisms also influence one another. Highly prejudiced individuals often avoid intergroup contexts. This prejudice and accompanying avoidance could thereby manifest in less expertise with outgroup members. Consistent with this, correlations exist between prejudice and interpersonal sensitivity (Andrzejewski et al., 2009; Rule et al., 2015). Similarly, a lack of expertise could promote prejudice. Failing to understand an outgroup members cues could yield interaction disfluency, which in-turn could yield negative attitudes. Consistent with this hypothesis, interruptions to processing fluency reduce ratings or perceptions of others' similarity, ingroup membership (Claypool et al., 2012), and trustworthiness (Alter & Oppenheimer, 2009).

Herein, we describe emotion perception as including both judgments of emotional intent and emotional authenticity. This framing allows for a broad inclusion of emotion perception paradigms (e.g., emotion recognition tasks, smile authenticity). We also argue that these emotion perception tasks are influenced by race in systematic ways. However, it is worth noting that the interpersonal sensitivity literature has identified meaningful differences in interpersonal accuracy across domains (e.g., personality, emotion, situational affect, deception, thoughts and feelings, social attributes; Schlegel et al., 2017). For example, performance in deception detection tasks is only weakly correlated with performance in emotion recognition tasks ($r=.14$; Schlegel et al., 2017), indicating that "interpersonal sensitivity" is not unidimensional. Because these domains may involve different skills, we might expect the effects of group membership may also be task specific. In support of this argument, gender effects in emotion recognition (Hall & Matsumoto, 2004) often do not replicate in lie detection paradigms (Lloyd et al., 2018). This raises an important question: Could group membership have different effects on sensitivity or response bias dependent on the paradigm or task of interest? This seems likely. Certainly, paradigms vary

in allowance of cognitive control and motivated processing, thereby altering the influence of group membership on sensitivity or response bias. Future work could benefit from comparing the effects of group membership on sensitivity and bias across domains of emotion perception.

As a final limitation the current work focuses on Black-White race relations. Although Black-White race-relations are among the most commonly examined in the intergroup relations literature, they are not necessarily the most prevalent or pressing in all contexts. For example, Indian individuals comprise the largest racial minority group in England and Wales (England and Wales 2011 Census, 2018). Thus, the purposeful examination of different social groups is needed to further clarify the mechanisms and nuances of intergroup disparities across multiple contexts.

Conclusion

We argue race-based decision biases *and* differential sensitivity to social cues are both important to understanding inequality. Whereas most work in intergroup relations supports the role of bias, we argue sensitivity also plays an important role in generating race-based disparities.

The consideration of sensitivity and bias allows researchers to revisit classic phenomena and consider new potential causes and consequences. Further, new research questions can also benefit from consideration of response biases alongside disparate sensitivity, particularly as this approach provides multiple points of intervention, including interventions targeting motivation and attention which are theorized to play a critically important role in the ability to accurately decipher others' emotional cues. The current work suggests Signal Detection perspectives may be useful in deciphering between the roles of sensitivity and response bias in intergroup relations. Finally, although the current work focuses on race-based disparities and interracial interaction success, the broad themes of this article may be applicable to numerous other intergroup dynamics and group-based inequities.

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