

BRIEF REPORT

The Invisible Man: Interpersonal Goals Moderate Inattentive Blindness to African Americans

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Research on inattentive blindness demonstrates that when attending to 1 set of stimuli, people often fail to consciously perceive a task-irrelevant object. In this experiment, we tested for selective inattentive blindness to racial outgroup members. We reasoned that some racial groups would be perceived as more relevant than others, depending on the interpersonal goal that was active. White participants were primed with interpersonal goals that ranged from psychologically distant (searching for a coworker) to psychologically close (searching for a romantic partner). In the control condition, no goal was explicitly activated. Then, participants watched a video of 2 teams passing a ball and were asked to count the ball passes of one of the teams. In the middle of the video, a Caucasian or an African American man walked through the scene. Participants were then asked to report whether they had seen the interloper. Results revealed that as interpersonal goals became closer to the self, participants were less likely to see the African American man. This research demonstrates a new form of social exclusion based on early attention processes that may perpetuate racial bias.

Keywords: prejudice, inattentive blindness, social goals, social distance, intergroup contact

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I am an invisible man. I am a man of substance, of flesh and bone, fiber and liquids—and I might even be said to possess a mind. I am invisible, understand, simply because people refuse to see me.

—Ralph Ellison

Discrimination is negative treatment of individuals on the basis of group membership. Discrimination can range from active hostility to passive neglect. The former involves special (negative) attention toward a target; the latter, a lack of attention, the kind described by Ralph Ellison in the epigraph. In this article, we first discuss the conundrum that African Americans

face of being either hypervisible or ignored. Then, we discuss how one's particular motivations can lead to varying degrees of visual attention to African Americans. Using an inattentive blindness paradigm, we investigate whether preattentive processes may lead to race-based exclusion. That is, in certain situations, people may fail to perceive outgroup members, suggesting that discrimination occurs not only as a result of conscious and nonconscious biases activated once a stigmatized target is perceived—as research has shown—but also as a result of attentional processes that keep stigmatized targets from even being perceived.

Can African Americans Be Both Hypervisible and Invisible?

Social cognition research has demonstrated that under some circumstances African Americans are “hypervisible”: they draw significantly more visual attention than do Caucasian Americans. Studies have shown that Caucasian Americans visually orient to African American (vs. Caucasian American) faces as if the African American faces were a threat (Bean et al., 2012; Donders, Correll, & Wittenbrink, 2008; Trawalter, Todd, Baird, & Richeson, 2008). This preferential attention allocation is heightened when race, racial prejudice, and/or racial stereo-

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types are salient. For example, participants primed with crime-related words visually oriented to African American faces more readily than they did to Caucasian American faces (Eberhardt, Goff, Purdie, & Davies, 2004). These studies suggest that when African Americans are perceived to pose a social or physical threat, Caucasian Americans are more vigilant, and they preferentially attend to African Americans.

Although some research suggests that there are circumstances under which African Americans draw attention, other research suggests that African Americans may be invisible or overlooked under other conditions. Studies on the cross-race effect have consistently shown that Caucasian Americans attend to and remember African American faces less well than they do Caucasian faces (Chance & Goldstein, 1996; see Meissner & Brigham, 2001, for a review). Other studies have shown that the cross-race effect is moderated by the perceived relevance of the minority person. For example, although Caucasian Americans display a cross-race effect for African American men and women, the effect is stronger for female faces (Sesko & Biernat, 2010), in part because perceivers assume African American women lack power and therefore are not relevant to the perceiver's goals or outcomes (Thomas & Dovidio, 2012; see also Purdie-Vaughns & Eibach, 2008). Studies of the cross-race effect provide only indirect evidence for invisibility because these memory studies generally have not separated the effect of attention at encoding from other variables that may affect storage and retrieval processes. Taken together, these studies are suggestive that, at least under some circumstances, Caucasian Americans may ignore African Americans. To understand the effect of race on attention, we turn to the inattention blindness literature.

Inattentional Blindness and the Invisibility of African Americans

To navigate the complex world, people only attend to a subset of stimuli. They often fail to consciously perceive items that are unrelated to the task at hand. This notion is perhaps best illustrated by work on inattention blindness. For instance, Simons and Chabris (1999) asked participants to watch a video of two teams playing a ball-tossing game. Participants were told to count the number of times the ball was passed among one of the teams. In the middle of a video, a person in a gorilla suit walked through the scene. In this study, fewer than half of the participants reported seeing the gorilla. Because participants were motivated to allocate their attention to counting the ball passes, they failed to perceive something right in front of them. This phenomenon is called *inattention blindness* (Mack & Rock, 1998; Neisser & Becklen, 1975).

Inattentional blindness does not always occur. Research has shown that priming categories (e.g., animals, furniture) can direct attention toward category-relevant stimuli. For example, in a study by Koivisto and Revonsuo (2007), participants were asked to only pay attention to items related to a given category (e.g., animals) while looking at complex visual scenes. Participants were told that there were only four items to attend to in each visual scene. In some trials, an additional irrelevant item was included. Participants were more likely to see the additional item when it was related to the category (e.g., a rabbit) than when the item was unrelated to the category (e.g., a chair).

Stereotype categories can also moderate the inattention blindness effect. Drawing on past research showing that Caucasian Americans often display implicit associations between African Americans and apes (Goff, Eberhardt, Williams, & Jackson, 2008), one study found that when people were primed with the concept of African Americans, they were more likely to see an ape in Simons and Chabris's (1999) inattention blindness paradigm (Rattan & Eberhardt, 2010). Together, these examples demonstrate that priming categories (including racial categories) can direct attention toward category-relevant stimuli. Salient categories shape who people see and who they do not see.

Like priming categories, priming goals may also influence who people see. When a goal is active, people are more likely to bring to mind and seek out individuals who can help them achieve the goal (Fitzsimons & Shah, 2009). And, not surprisingly, when a goal is active, people orient and attend to goal-relevant stimuli (Aarts, Dijksterhuis, & De Vries, 2001; Most, Scholl, Clifford, & Simons, 2005). For example, in a study by Maner, Gailliot, Rouby, and Miller (2007), participants primed with mating goals visually oriented to physically attractive faces faster than did participants primed with happiness goals. Furthermore, research has shown that people remember individuals who can help them achieve a goal better than they do individuals who cannot (Rodin, 1987). Taken together, these lines of research demonstrate that social goals can modulate attention, influencing who people notice, seek, and later remember.

Because goals bias attention to relevant persons in social environments, goals may lead to racially biased visual processing. Much classic research has shown that Caucasian Americans consider African Americans more suitable for distal social relationships (e.g., coworkers) than for close social relationships (e.g., friends or a romantic partner; e.g., Bogardus, 1933). As a result, we hypothesized that the perceiver's interpersonal goals influence whether Caucasian American participants perceive African American individuals in an otherwise complex visual scene.

Present Research

With the present work, we examined the conditions under which Caucasian Americans display inattention blindness toward African Americans. To investigate this, we randomly assigned Caucasian American women to adopt a variety of interpersonal goals that varied in social distance from the self (Bogardus, 1933). Then, participants viewed an inattention blindness video similar to the video used by Simons and Chabris (1999), but this video manipulated whether the man walking through the middle of the scene was African American or Caucasian American. We measured whether the African American versus the Caucasian American interloper was perceived as a function of interpersonal goals differing in social distance.

We hypothesized that in a control condition, in which no specific interpersonal goal was activated, Caucasian Americans would be more likely to consciously perceive an African American interloper than a Caucasian American interloper. This would be consistent with previous work showing that under baseline circumstances, Caucasian Americans visually orient to African Americans because African Americans are stereotypically associated with a potential threat (Donders et al., 2008;

Richeson & Trawalter, 2008; Trawalter et al., 2008). In contrast, when pursuing goals that are psychologically close to the self (e.g., finding a romantic partner or friend), we predicted that Caucasian Americans would consciously perceive a Caucasian American interloper more often than they would an African American interloper.

Method

Participants

Two hundred forty-four Caucasian American women were recruited from an online sample using Amazon Mechanical Turk.¹ Participants were limited to U.S. citizens. Thirty-five participants failed the manipulation checks (explained below). Our final sample thus consisted of 209 participants. Participants were compensated \$0.50 for their time.

Procedure

The design of the study was a 5 (psychological closeness of interpersonal goal) \times 2 (race of the interloper) between-subjects design. First, participants imagined the ideal person to fulfill one of several randomly assigned roles: romantic partner, friend, neighbor, or coworker. The roles ranged from psychologically close to the self to far from the self and were selected on the basis of classic research on social distance and racial discrimination (Bogardus, 1933). After participants had created a clear image of their ideal person, they were asked to vividly describe how this person looked, dressed, acted, and spoke. Participants in the control condition did not have a goal explicitly activated and did not complete a writing task. Next, all participants took the Visual Awareness Test. Participants were not forewarned about the Visual Awareness Test or any questions related to the test, to reduce potential demand effects. To keep the goal active during the visual task, we described this test as a way to ensure participants were paying attention before they would move on to more questions about their ideal other. In reality, this was a measure of inattention blindness. Participants watched a video of two teams of three women passing a basketball, similar to the video created by Simons and Chabris (1999). They were told to count the number of passes one of the two teams made. In the middle of the video, participants were randomly presented with an African American or Caucasian American man (i.e., the interloper) wearing a black or white t-shirt (counterbalanced) walking across the scene. Shirt color had no effect on our results.²

After watching the video, participants were asked to report the number of passes the players made. As a manipulation check, participants who were more than four ball tosses off from the actual number of ball tosses were excluded from analysis.³ Next, participants were asked if they noticed anything else that happened in the video unrelated to the ball passes (coded yes, no). Then, they were asked if they noticed a man walking across the scene (coded yes, no). Answers to the first and second questions were highly correlated ($r_\phi = .95$, $p < .001$), so their answers to the second, more specific question served as our dependent measure. We also asked participants whether they had previously seen an inattention blindness video before. Even though some participants (23%) reported having seen such a video, we did not exclude them

from the analysis to maintain power. Retaining or excluding these participants did not alter the main findings (similar to Simons & Mitroff, 2001). We also included individual difference measures of prejudice, none of which qualified the conclusions (see the supplemental materials for analyses).

Results

We conducted a logistic regression on whether participants noticed the target as a function of goal condition (from 1 = *closest to self* to 5 = *furthest from self*, which is the control condition) and target race (African American = 1, Caucasian American = -1) and their interaction.⁴ We controlled for age; older participants were less likely than younger adults to notice the target, $B = 0.08$, $Wald(1) = 15.38$, $p < .0001$ (see also Graham & Burke, 2011). Results also revealed a main effect of target race, $B = -1.28$, $Wald(1) = 8.85$, $p = .003$, such that participants were more likely to notice the Caucasian American (vs. African American) target (see Figure 1). As predicted, this main effect was qualified by the Goal \times Target Race interaction, $B = 0.36$, $Wald(1) = 7.94$, $p = .005$.

To decompose this interaction, we first examined the effect of goal condition for the Caucasian American and African American targets separately. As interpersonal goals became more distant from the self (from the romantic partner to the control condition), participants were more likely to notice the African American target, $B = 0.36$, $Wald(1) = 3.61$, $p = .06$, and less likely to notice the Caucasian American target, $B = -0.35$, $Wald(1) = 3.75$, $p = .05$. We also decomposed the interaction by examining the effect of target race in each goal condition. In the romantic partner condition, participants were marginally more likely to notice the Caucasian American target relative to the African American target, $B = 1.03$, $Wald(1) = 3.01$, $p = .08$. In the friend condition, participants were also more likely to notice the Caucasian American target relative to the African American target, $B = 0.75$, $Wald(1) = 4.76$, $p = .03$. In the neighbor and coworker conditions, participants were no more likely to notice the Caucasian American or African American target, $B = 0.03$, $Wald(1) = 0.005$, $p = .95$, and $B = 0.13$, $Wald(1) = 0.08$, $p = .78$, respectively. Finally, in the control condition, participants were marginally more likely to notice the African American target relative to the Caucasian American target, $B = -.080$, $Wald(1) = 3.29$, $p = .07$.

Discussion

The present study sheds light on one reason why African Americans sometimes attract more attention than Caucasian Americans

¹ Because we used a video with a male interloper, we recruited female participants. We assume that the male interloper would be relevant across conditions—including the romantic partner condition—for most female participants.

² Shirt color did not affect rates of noticing the male target, $Wald(1) = 0.05$, $p = .82$. Moreover, shirt color did not interact with target race, $Wald(1) = 0.07$, $p = .79$.

³ Retaining or excluding these individuals does not alter the basic findings (the Psychological Distance \times Race of Interloper interaction is significant either way), but some of the simple effects become weaker if participants failing the manipulation check are included.

⁴ Treating condition as a categorical variable yields similar findings. Likewise, constructing a general linear model with condition (categorical or continuous) and target race and their interaction yields the same results.

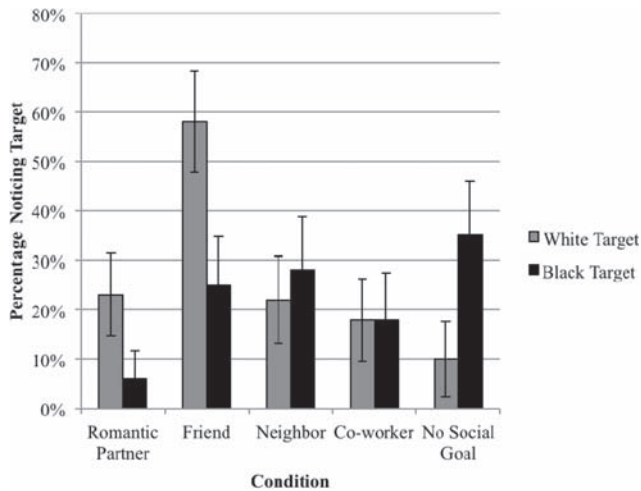


Figure 1. Percentage of participants noticing the Caucasian or African American target walking across the scene in each condition. Error bars represent standard errors.

do, whereas at other times they receive less attention. In the control condition, when interpersonal goals were not explicitly activated, participants were more likely to notice an African American man than a Caucasian American man walking across the scene. This finding is consistent with other studies in social cognition showing that African American male targets garner more attention than do Caucasian American male targets because of greater perceived threat associated with racial stereotypes (Donders et al., 2008; Trawalter et al., 2008). Yet, when interpersonal goals were activated (particularly the goal of finding a friend or a romantic partner), participants were more likely to see the Caucasian American man than the African American man. This work extends Rodin's (1987) finding that people do not remember individuals who do not fulfill their current social goal. Here, we show that when people are engaged in a task, they may not even see individuals who do not fulfill their current interpersonal goal.

The current research contributes to two literatures. First, our research has implications for stereotyping and prejudice. It suggests that interpersonal goals may create attentional biases toward or away from African Americans. Intergroup contact is a well-established mechanism for reducing prejudice (Pettigrew & Tropp, 2006), but the presence of outgroup members in the environment may have little impact if they are never seen. Our research suggests that when Caucasian Americans are under interpersonally close relationship goals, they may not attend to or even see African Americans in an otherwise complex social world. This failure to notice African Americans may lead to the maintenance of social distance between African Americans and Caucasian Americans. Moreover, because preattentive processes are outside of perceivers' awareness, they may be especially difficult to change.

In addition, our research adds to the inattention blindness literature in that social goals can moderate the inattention blindness effect. To our knowledge, few studies have been able to reduce the inattention blindness effect. For example, the effect is not moderated by familiarity with the task (Simons, 2010), nor is it moderated by individual differences in performance on an attention task (Simons & Jensen, 2009) or by expectancies for the

target item (Simons & Mitroff, 2001). Most of the potential moderators studied to date have concerned perceptual or memory variables. Our data are some of the first to suggest that social goals may influence what is consciously perceived. When the interloper can fulfill a social goal, attention may be allocated to him. However, when the interloper does not fulfill a social goal, he is less likely to be seen.

Some limitations are worth noting. First, we used only female participants. Although there is little theoretical reason to think that male participants would show a different pattern of results, future research can and should empirically test this. Second, the difference in rates of detecting the Caucasian American versus African American interloper in the romantic condition was only marginally significant. This may be because some participants were in committed relationships and previous research suggests that individuals in committed relationships are less likely to attend to potential alternative partners (Johnson & Rusbult, 1989). We did not ask participants about their relationship status, but in future studies, researchers could investigate whether relationship status influences the results in this condition. Additionally, the paradigm may not seem ecologically valid in that people are not often in a situation in which they have to count ball passes. Nonetheless, research has found inattention blindness effects in realistic situations, as when individuals fail to notice another car while driving (Simons, 2000). The paradigm here was meant to model increasingly common, real-life conditions in which people direct their attention to one subset of stimuli in the context of other stimuli that might compete for attention. Finally, although no goal was explicitly activated in the control condition, this condition may not be free of interpersonal goals. Indeed, the fact that participants were more likely to see the African American (vs. Caucasian American) target in the control condition suggests that some goal may have been activated (possibly the goal to protect oneself from physical or psychological threat). In future studies, researchers should investigate what goals may be active under default conditions and how these may contribute to racial biases like those observed.

Limitations notwithstanding, this research may have far-reaching practical applications. Back in 1952, in *The Invisible Man*, Ralph Ellison captured a Black man's struggle with invisibility in a White world. Since then, social psychologists and sociologists have noted that segregation, stereotypic media portrayals, and cultural stereotypes more generally render African American people invisible (Entman, 1994; Massey & Denton, 1993; Sipler, 2005). The present work suggests that this invisibility is more than a metaphor. When Caucasian Americans are concerned with their everyday (interpersonal) goals, they may not attend to or even perceive African American individuals in their midst.

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