

Perceiving the World Through Hierarchy-Shaped Glasses: On the Need to Embed Social Identity Effects on Perception Within the Broader Context of Intergroup Hierarchy

Nour S. Kteily^a and Jennifer A. Richeson^{b,c}

^aDepartment of Management and Organizations, Northwestern University, Evanston, Illinois; ^bDepartment of Psychology, Yale University, New Haven, Connecticut; ^cInstitute for Policy Research, Northwestern University, Evanston, Illinois

Our tendency to attach to, identify with, and favor social groups is one of the defining features of the human experience. As Y. Jenny Xiao, Géraldine Coppin, and Jay J. Van Bavel (this issue) note, humans flexibly identify with a broad range of social groups (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) that fulfill our need for belonging, provide us with a sense of distinctiveness, and model a set of cultural norms that fundamentally guide our behavior. As much research has highlighted, our groups can even shape critical intergroup behaviors such as decisions about whom we consider worthy of our help (Everett, Faber, & Crockett, 2015; Saucier, Miller, & Doucet, 2005) and whom we deem legitimate targets of our wrath (Brewer, 2007; De Dreu, 2010).

In their perceptual model of intergroup relations, Xiao et al. (this issue) propose that the effects of our membership in social groups extend further still to influence our very perception of the world around us. The authors make two central claims: First, integrating research on the fundamental effects of social identification on human behavior (e.g., Sherif & Sherif, 1953; Tajfel, Billig, Bundy, & Flament, 1971; Turner et al., 1987) with research on top-down influences on perception (Clark, 2013; Egner & Hirsch, 2005; Gilbert & Li, 2013; Summerfield & Egner, 2009), they propose that social identity “can alter perception across modalities (vision, audition, olfaction, tactile, and gustatory perception” (i.e., Path C in their model). Second, the authors propose that these changes in perception *mediate* the effects of social identification on intergroup relations (i.e., Path D in their model). Indeed, they argue, “intergroup relations are grounded in perception” (p. 319). This is an idea with significant implications: From this perspective, the very act of identifying with a group can, by shaping perceptual processes like attention to and memory for ingroup versus outgroup faces, influence behaviors such as the desire to interact with targets (e.g., Kawakami et al., 2014) that set the stage for intergroup tension.

Xiao et al.’s (this issue) model is ambitious, putting forward a provocative thesis and, in the process, theoretically integrating disparate research that highlights the ways in which our group memberships can influence our perceptual processes. We agree with the authors’ central premise that group

memberships can shape our perception, and we see their integration of research spanning a range of perceptual modalities as an important advance. We also think that several of the studies they present in support of their model—particularly those that rely on minimal groups—provide compelling evidence that categorization into, and social identification with, an ingroup can causally impact processes of perception (broadly defined). For example, in one study the authors cite (Ratner, Dotsch, Wigboldus, van Knippenberg, & Amodio, 2014), participants were randomly assigned to groups on the basis of a classic dot estimation task. The researchers subsequently used the reverse correlation technique (Dotsch & Todorov, 2012) to examine how participants tended to represent the faces of ingroup, compared with outgroup, members. Results revealed that, despite the fact that group membership was determined on a highly arbitrary basis, ingroup faces generated by participants were on average more likely to have facial characteristics communicating trustworthiness than the outgroup faces.

In another study using minimal groups, simply believing that a face belonged to an ingroup (vs. outgroup) member increased individuals’ ability to recognize it, providing strong evidence that ingroup membership, even based on arbitrary distinctions, can exert important outcomes (Bernstein, Young, & Hugenberg, 2007; Van Bavel, Swencionis, O’Connor, & Cunningham, 2012). Further, several of the studies involving real-world groups that are included in the review are similarly compelling in isolating the causal effects of social group membership on perception. In one study the authors cite, for instance, Swiss people primed with their Swiss identity experienced the smell of chocolate (a food item strongly tied to the national Swiss identity) as more intense than Swiss people who were primed with their individual identity or not primed (Coppin et al., 2016).

Despite its contributions, however, in our view, the perceptual model of intergroup relations does not sufficiently take into account the extent to which processes rooted in existing intergroup relations may be responsible for many of the intergroup effects they describe. Specifically, we highlight the role of the historical and social context within which most of our group identities are embedded. Although research with

minimal groups nicely isolates interesting effects of “mere” membership within relatively content-less ingroups, many of the most important groups we belong to (e.g., our racial, gender, religious, and national groups) exist within an entrenched hierarchical social structure that affords status and power to some groups at the expense of others (see Richeson & Sommers, 2016, for a larger discussion of this perspective). This existing structure of relationships between groups is associated with a set of stereotypes, beliefs, and intergroup attributions that themselves inform our social identities and, we argue, often come to critically shape our perception, allocation of attention, judgments, and behavior. From this perspective, although our membership in social groups *can* impact perception, intergroup relations are more often the cause than the effect.

Notably, although Xiou et al.’s (this issue) model does include pathways (e.g., Paths B and F) from intergroup relations back to perception and social identification, they put substantially less emphasis on this part of the model relative to the routes from social group membership to intergroup relations through perception. Outlining our reasoning next, we propose that several of the findings highlighted by Xiou et al. may be best understood through the lens of hierarchical intergroup relations, and we argue for a deeper and more explicit integration of this factor into the authors’ theorizing. Further, we suggest that emphasizing the causal role of perception rather than hierarchical intergroup relations could be potentially misleading and detrimental to the goal of dismantling unjust and oppressive systems.

A Structural Perspective on Intergroup Perception

Intergroup Hierarchy and Protection of the Status Quo

Social groups around the world are arranged in the form of dominance hierarchies, with groups at the top enjoying a disproportionate amount of status and resources relative to groups at the bottom. The consequences of this social organization extend widely: Beyond the prestige and status that high rank affords, members of advantaged groups tend to enjoy better financial outcomes, more access to jobs, superior health and educational outcomes, and even lower levels of incarceration (Sidanius & Pratto, 1999).

These advantages tend to produce a strong motivation to maintain the dominance hierarchy: Although there is meaningful individual variation, members of dominant groups (e.g., White Americans, men, and the rich) are consistently higher (on average) than members of subordinate groups (e.g., Black Americans, women, and the poor) in the belief that societies *ought* to be organized hierarchically (i.e., in their level of social dominance orientation [SDO]; Ho et al., 2015). Furthermore, those occupying dominant positions experience threat when faced with the prospect of losses to their standing (e.g., Craig & Richeson, 2014a; Kteily, Saguy, Sidanius, & Taylor, 2013; Scheepers & Ellemers, 2005) and engage in a broad array of strategies to protect their dominance. These strategies include shifting attention away from, reframing, or denying their advantage (Knowles, Lowery, Chow, & Unzueta, 2014; Kteily et al., 2013; Phillips & Lowery, 2015; Saguy & Kteily, 2014), as

well as adopting ideologies (e.g., meritocracy), social policies (e.g., support for minimum wage), and stereotypes (e.g., of outgroups as incompetent, lazy or aggressive) that rationalize their advantage (Knowles et al., 2014).

Of importance, dominant group members’ motivation to maintain the hierarchical status quo is paired with their greater *control* over the ideological discourse: By virtue of their superior access to positions atop influential institutions (e.g., governmental, legal, media, and business institutions), members of advantaged groups are better able to shape the ideologies that permeate society and come to characterize the social system (Sidanius & Pratto, 1999). It is no surprise, then, that historically the ideologies and stereotypes that have tended to prosper have been those that frame the system as fair (e.g., Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004; Kay & Jost, 2003) and that provide legitimacy and stability to relative group rankings (e.g., Fiske, Cuddy, Glick, & Xu, 2002). For example, ideologies—such as meritocracy and the “American dream”—which imply that anyone who works hard enough can rise to the top and that those at the bottom simply haven’t put in sufficient effort are widespread, and foundational to American society. Consistent with this, groups at the bottom of society (e.g., Hispanics, welfare recipients) are stereotyped as substantially lower in competence than those at the top (e.g., Whites, rich people; Fiske et al., 2002), providing a seemingly valid explanation for their respective positions in society. This general pattern is widespread, with research suggesting that the strong link between status and perceptions of competence extends across a wide range of countries (Fiske & Durante, 2016; Fiske, Dupree, Nicolas, & Swencionis, 2016).

Stereotyping in service of the system is not limited to attributions of competence. Indeed, competent groups perceived as a competitive threat (e.g., Asian Americans) are stereotyped as lacking warmth, promoting their denigration. Still other groups deemed to pose a physical threat (e.g., African Americans, Arabs) are stereotyped as aggressive, rationalizing the use of more heavy-handed tactics to control them, such as policing, surveillance, and (under certain conditions) even institutionalized violence. Sometimes, the use of stereotyping moves beyond “merely” protecting dominance to the overt exploitation of others. For example, in recent history, dehumanizing stereotypes of aboriginals as uncivilized and unsophisticated were used to justify their colonization (e.g., Jahoda, 1999), and depictions of Africans as unintelligent and beastly were used to legitimate slavery (see Kteily, Bruneau, Waytz, & Cotterill, 2015, for a discussion of how the blatant dehumanization of certain groups persists today). In sum, social hierarchy produces an overall motivation on the part of advantaged groups to maintain and expand intergroup dominance, which can manifest in the production and promulgation of stereotypical representations of groups that help bolster the legitimacy of the social system, promoting the denigration of groups at the bottom while threatening targets that could challenge the social structure.

The specific content of the stereotypes we adopt about social groups has critical implications for how we perceive them, consistent with research suggesting that stereotyping promotes the rapid and uncritical processing of stereotype-consistent behavior (Fiske, 2000; von Hippel, Sekaquaptewa, & Vargas, 1995). For example, when we categorize an individual as African

American, we also activate constructs such as *aggressive* and *athletic*, facilitating the categorization of handguns and sports-related objects (Correll, Park, Judd, & Wittenbrink, 2002; Eberhardt, Goff, Purdie, & Davies, 2004; Judd, Blair, & Chapleau, 2004; Payne, 2001). By the same token, Whites exposed to ambiguous targets behaving in a threatening way (e.g., moving toward the perceiver) are more likely to perceive that target as African American (Miller, Maner, & Becker, 2010), a pattern that—importantly—would likely differ were African Americans stereotyped differently (e.g., as physically meek, as in the stereotype of Asian Americans).

If the content of stereotypes can shape perception, and if the content of stereotypes is itself influenced by hierarchical intergroup relations, then it is important for any argument claiming that social identification affects intergroup relations via perceptual processes to disentangle whether the effects being described are driven by social identification per se (i.e., the mere fact of belonging to an ingroup, triggering a general ingroup/outgroup psychology) or instead by *specific* content associated with the group, based on the relevant context of hierarchical intergroup relations. For example, when a White individual perceives a Black target in a biased manner, we think it is important to know whether this is because of the “mere” fact that the target represents an *outgroup* target, or more specifically because that target is a member of a *low-status* outgroup (or even a *Black* target in particular), with all of the sociostructural “baggage” that membership in this specific racial outgroup is associated with. Whereas the minimal group findings (in particular) that Xiou et al. (this issue) highlight present compelling evidence suggesting that group membership alone can affect perception—especially in terms of the fundamental “friend or foe” dimension of evaluation—several of the findings they describe in support of their perceptual model of intergroup relations do not arbitrate between the unique role of ingroup membership and the role of stereotypes deriving from a hierarchical social system.¹ Providing a few illustrative examples, next we argue that many of the presented findings (and similar work in the literature) are readily interpretable through the lens of stereotyping. This matters because the extent to which findings are understood as reflecting effects of general ingroup/outgroup psychology or motivations and stereotypes rooted in the hierarchical social system at large has implications for our understanding of how intergroup relations come to be and how intergroup hostility may best be disrupted.

Social Identity or Intergroup Relations?

In one of the studies cited by the authors as evidence of the effects of social identity on intergroup relations through perception, the researchers observed that inmates with more Afrocentric features were handed down harsher criminal sentences by judges than those with less Afrocentric features (Blair, Judd, & Chapleau, 2004; but see also Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006). On the basis of this, and other similar studies, Xiou et al. conclude that “these findings offer

preliminary evidence that perceptual biases can lead to changes in intergroup attitudes, judgment, and behavior, offering a basic cognitive process through which we could understand and predict intergroup outcomes” (p. 258). In this example, however, it is unclear whether intergroup relations are the effect or the cause. One account consistent with the authors’ model is that the (likely White) judges’ ingroup identity was salient, leading them to punish Afrocentric targets more harshly because these targets are more prototypical of the outgroup (and thus less prototypical of the ingroup). Another account, however, rooted in historical and hierarchical intergroup relations, would propose that it is the *specific* stereotype associating African Americans with violence and criminality that causes Afrocentricism to be associated with harsher punishment. According to this view, an inmate who looked just as different from a prototypical White ingroup member but on a dimension that lacked the aggressive/criminal stereotype associated with Blacks in the United States—say, having very flat ears—would receive substantially less harsh punishment. Although it is plausible that the simple fact of looking different from the ingroup itself drives harsh punishment, one cannot be sure from this study. If in fact the Black stereotype is critical to this effect, it would suggest that social identification is not driving intergroup relations via perception; rather, the more straightforward interpretation would be that stereotypes rooted in existing intergroup relations are influencing perception and behavior. Indeed, in light of this, it is notable that Blair et al. (2004) observed that Afrocentricism was similarly associated with punitive judgments of both Black and White inmates, suggesting the importance of the Afrocentric-aggressive/criminal association beyond the role of group membership per se (see also Kahn, Goff, Lee, & Motamed, 2016).

Several other studies highlighted by Xiao et al. (this issue) are similarly ambiguous with respect to their support for a proposed link between social identification and intergroup relations via perception. For example, the authors cite research (Bonham, 2001; Green et al., 2003; Ng, Dimsdale, Rollnik, & Shapiro, 1996; Pletcher, Kertesz, Kohn, & Gonzales, 2008; Tamayo-Sarver, Hinze, Cydulka, & Baker, 2003) suggesting racial and ethnic disparities in the prescription of pain medication for Whites as compared to racial minorities in emergency rooms, with Blacks and Latinos (vs. Whites) treated less aggressively for pain. Although it is possible that these behavioral effects are driven simply by the fact that Blacks and Latinos represent outgroups for the (presumably) mostly White doctors, it is likely that the specific context of existing intergroup relations plays an important role. For example, research has shown that part of the reason that White Americans deny pain to Black Americans is because they attribute them “magical” superhuman qualities (Waytz, Hoffman, & Trawalter, 2015)—qualities themselves partially rooted in stereotypic media portrayals of African American athleticism and physicality that reflect vestiges of ideas prominent during the time of slavery (Carrington, 2010; Entine, 2000). Without the role of such stereotypes (i.e., absent effects of historical context and hierarchical intergroup relations), it is unclear whether biases toward outgroups in treatment of pain would be observed. For example, although we are not aware of systematic research examining this, we suspect that African American doctors are unlikely to deny or

¹We note that we do not see these two possibilities as mutually exclusive. Rather, they might reinforce one another, a possibility we return to later.

even reduce the level of pain medication offered to White patients, despite their status as an outgroup.

The Primacy of Hierarchy Maintenance Motives

Our argument regarding the importance of analyzing the type of findings that Xiao et al. (this issue) offer as evidence for their perceptual model through the lens of social hierarchy can be extended not only to encompass the consequences of stereotypes generated in service of the social system but also by even more directly considering individuals' motivations for maintaining the hierarchical social order. Thus, beyond simply activating stereotypes prominent in society, individuals' specific motivations to maintain the hierarchical status quo (i.e., their social dominance or system justification motives) may directly influence their social perceptions in ways that promote system stability. Again, we illustrate our reasoning next, drawing on work highlighted in the Xiao et al. review.

In one study, Krosch and Amodio (2014) observed that (predominantly White) participants primed with economic scarcity were more likely to represent Black faces in ways that emphasized their Blackness. Moreover, the representation of Black faces as "blacker" was associated with a lack of willingness to allocate resources to the target. On one hand, it is possible that these effects represent the role of group identification and the activation of a general ingroup/outgroup psychology, with perceivers belonging to any ingroup judging any ambiguous target as looking more like an outgroup when their resources are threatened. On the other hand, it is possible that, as members of a group enjoying social advantage and (on average) motivated to maintain it, the White participants in this study (i.e., the majority of participants in the samples) were highly threatened by the cues of systemic instability and were thus motivated to reinforce hierarchical group boundaries. This motivation to reinforce hierarchy would be well served by perceiving ambiguous targets as looking Blacker: Because Blackness is associated with low status, distancing an ambiguous target from high-status groups by perceiving them as looking Blacker emphasizes the purity of dominant groups and reifies a rigid status ordering.

Indeed, prior evidence is generally consistent with the possibility that motivations rooted in support for the system shape perception. In one such study, Krosch, Berntsen, Amodio, Jost, and Van Bavel (2013) found that motivations for system justification mediated effects of political conservatism on the perception of racially ambiguous faces as Black (vs. White). It is important that White Americans higher in conservatism (and more opposed to egalitarian changes to the social system) engaged in more Black categorizations when the faces were labeled as "American" (i.e., relevant to participants' own social system) but not when they were labeled as "Canadian" (i.e., irrelevant to participants' own social system). This suggests the important role of individuals' motivation to protect their social system. In another study assessing system-level motivations, Kteily, Cotterill, Sidanius, Sheehy-Skeffington, and Bergh (2014, Study 3) found that White Americans high on SDO (i.e., motivated to maintain social hierarchy) perceived a racially ambiguous target as looking less White when he was described as low in status but not when he was described as high in status.

Consistent with the idea that these perceptions reflected a desire to maintain status differentiation in the overall social hierarchy rather than social identification per se, the findings held controlling for Whites' level of ingroup identification.

Similar interpretations can be put forward regarding other findings cited by Xiao et al. (this issue). For example, the research cited suggesting that members of majority groups tend to overestimate the population size of minority groups and the rate of their population growth (Alba, Rumbaut, & Marotz, 2005; Outten, Schmitt, Miller, & Garcia, 2012) may well reflect motivations rooted in desire for the maintenance of the hierarchical status quo as compared to motivations specifically rooted in a broader ingroup/outgroup psychology (see also Craig & Richeson, 2014b). Similarly, although the finding that threatening groups such as Mexican immigrants were estimated as physically closer and larger in size (Xiao et al., this issue) is very interesting, it is unclear whether the sense of threat emerged simply because of the fact that Mexican immigrants are an outgroup or because of the perceived realistic (e.g., jobs) and symbolic (e.g., language) threats they pose to the stability of the current system.

Last, consider the oft-cited research by Caruso, Mead, and Balcetis (2009) finding that individuals who rated photographs of Barack Obama as more representative of him when his skin tone had been lightened were more likely to vote for him in the 2008 election. Although this effect is certainly an example of social identity (Democratic voters, shared policy preferences) shaping perception, the particular pattern of biased perception also reveals the underlying influence of anti-Black sentiment and, thus, hierarchical intergroup relations. Specifically, lightening Barack Obama, presumably to make him "less Black" and a more acceptable choice for president, is just as stereotypical as darkening him, so as to make him seem less acceptable as a choice for president (see also Caruso et al., 2009). This process is not limited to Obama: It is this same type of mental distancing (if not subtyping) by which Whites in high-status positions claim that they don't really see their Black coworkers as "Black" and distance admired Black Americans from their racial category (see, e.g., Richeson & Trawalter, 2005).

Consequences of Overestimating Perception's Effects on Intergroup Relations

Findings regarding perceptual biases in the domain of race are particularly important to interrogate because they could lead to misleading interpretations regarding the routes best suited to reducing discriminatory judgments and behavior and promoting structural social change. Indeed, Xiao and colleagues argue that "changing perception produces consequences in intergroup relations, as manifested in intergroup attitudes and behavior" and, further, suggest that "perceptual changes might have downstream consequences for intergroup attitudes and behaviors" (p. 259). However, if it is actually the case that negative social stereotypes of Blacks (i.e., intergroup relations) are, for instance, causing those who support voting for Obama to lighten him, then "changing perception" ultimately ends up maintaining and reinforcing the typical mental association between race and status by distancing high-status targets like Obama from Blackness. Moreover, by its very nature, changing

perception through processes like lightening individuals such as Obama can really only benefit specific targets rather than elevating the group as a whole. In other words, it is unclear to what extent efforts to “change perception” would actually result in meaningful changes in racial attitudes and behavior, or in structural inequalities.

That said, this “perceptual” pathway to better treatment has regularly been deployed by members of low-status racial (and other) groups, with the hope of changing how they might be judged by dominant group members (with varying levels of success). It is this pathway that is largely responsible for surgery to reduce features that are prototypical of specific ethnic groups (e.g., eyelid surgery among Asian Americans) and use of dangerous chemicals to actually lighten one’s skin by members of many non-White racial groups. Perhaps with fewer physical consequences, but certainly psychological ones, racial/ethnic minorities are often tasked with downplaying their group membership in their physical selves (e.g., adopting European hairstyles and textures via chemical treatments and/or wigs and hairweaves) or in their resumes in order to avoid unfair treatment. However, despite the fact that research suggests these efforts can sometimes be rewarding for the individuals who engage in them (Kang, DeCelles, Tilcsik, & Jun, 2016; Opie & Phillips, 2015), the prospects of this mechanism fostering structural change seem deeply limited. Moreover, should the burden of antiminority sentiment be on the target, or rather should attention and effort be devoted to disrupting beliefs such as the idea that prototypical Blackness (Afrocentricity) is justifiably engendering of poor treatment? Despite the evidence that perceptual processes are involved in shaping biased decision and behavior, in other words, we argue that it is extremely important to avoid the temptation to rely on interventions at the level of perception/physical representation of targets to undermine intergroup bias more broadly.

Variation in Hierarchy-Maintenance Motives within Groups

Thus far, we have focused our discussion primarily on the hierarchy motives of dominant and subordinate groups as a whole and considered how these might shape perception. At the same time, however, there is substantial individual-level variation in preference for hierarchical social system that is important to consider. Indeed, individuals’ systemic motivations sometimes even run contrary to group interests: Although members of dominant groups have higher levels of SDO on average than members of subordinate groups (Ho et al., 2015), some members of dominant groups are social egalitarians despite hierarchy’s benefits for their groups, whereas some members of subordinate groups endorse the hierarchical system, even though it disadvantages them (Jost & Banaji, 1994; Sidanius & Pratto, 1999). These motivations may then drive perceptions that contribute to promoting or challenging the social hierarchy, despite ramifications for the ingroup.

Indeed, in recent work, Kteily, Sheehy-Skeffington, and Ho (in press) examined the role of group membership and social dominance motives in influencing perceived levels of hierarchy in society. These authors reasoned that because the United States has norms of egalitarianism, the presence of (and

attention to) great levels of inequality creates pressures to enact egalitarian social policy. This should generate a motivation on the part of those who favor hierarchy to perceive lower levels of inequality between groups, supporting the view that egalitarian intervention is not necessary; for the converse reason, low SDO individuals (i.e., those who favor equality) should be motivated to perceive large power gaps. Moreover, to the extent that individuals’ systemic motivations are influencing their perceptions, the relationship between SDO and perception of hierarchy should be true whether individuals belong to dominant or subordinate groups. The authors examined this idea across several studies. In some studies, participants were asked to reflect on the power gap between Whites and Blacks, men and women, and rich and poor. The authors observed that higher levels of SDO were systematically associated with perceiving smaller discrepancies in power between advantaged and disadvantaged groups, and this mediated SDO’s effects on the rejection of egalitarian social policy. The link between SDO and perceived hierarchy was observed not only cross-sectionally but also in cross-lagged longitudinal analyses, providing evidence consistent with a causal role for SDO.

Most relevant to Xiao et al.’s (this issue) perceptual model, the authors extended this work to perceptions of abstract visual depictions of hierarchy (e.g., showing participants images of organizational hierarchies with stick figures representing people at the different levels) and found similar patterns: Higher (vs. lower) levels of SDO were associated with rating the same image as *looking* flatter (i.e., less hierarchical), which mediated rejection of egalitarian intervention. This was equally true whether or not participants were financially incentivized for reporting accurate perceptions, supporting the idea that participants were reporting what they actually saw. Consistent with the idea that this pattern reflected a motivated bias, the authors further observed that the tendency for high SDOs to perceive less hierarchy than average increased as the objective hierarchy in the images increased (heightening the risk of social pressure for egalitarian intervention); at the same time, the tendency for low SDOs to perceive *more* hierarchy than average increased as the objective hierarchy in the images *decreased*.

In a final study, the authors examined objective biases in hierarchy perception by first asking participants to evaluate organizational hierarchies, and later surprising them with a spot memory check. Across four trials, participants were presented with a “lineup” of five organizational hierarchies—including the focal hierarchy that they had actually seen, as well as more and less hierarchical versions—and asked to recall the hierarchy they had previously encountered. Consistent with the authors’ account, participants’ inaccuracies were associated with their motivations toward equality: Of interest, antiegalitarians were more likely to inaccurately recall seeing organizations flatter than those they had actually seen, whereas egalitarians tended to incorrectly remember seeing more hierarchical organizations than they had seen.

Critically, the relationship between levels of SDO and the perception of power differences in society was equivalent irrespective of participants’ membership in advantaged (men, Whites, rich) or disadvantaged (women, Blacks, and the poor) groups. Thus, for example, high SDO Blacks were just as likely to perceive lower levels of inequality as high SDO Whites, and

low SDO Whites were just as likely to perceive greater inequality as low SDO Blacks. Moreover, in all cases, the link between SDO and perception of hierarchy was observed controlling for the effects of participants' membership in advantaged or disadvantaged groups. Thus, these findings speak to the importance of considering how individuals' perceptions are shaped not only by their social identities but also by their motivations for maintaining versus challenging the social system.

Conclusions

In sum, we agree with the authors' notion that our membership in social groups can importantly impact perceptual processes. Sometimes, as the authors emphasize, the mere fact of our membership in groups can influence important perceptual processes—such as our preferential attention to and recognition of other ingroup (vs. outgroup) faces—in ways that can be impactful for intergroup relations, implying a perceptual route from social identification to intergroup behavior. We think that highlighting this possibility importantly advances our understanding of intergroup relations. At the same time, we argue that the perceptual model of intergroup relations needs to place greater emphasis on the hierarchical social context within which many important group identities lie. Although mere ingroup membership can shape how we perceive and subsequently treat members of ingroups and outgroups, our perceptions are often heavily constrained by the hierarchical social order within which our groups belong, and the associated set of stereotypes and systemic motivations that follow: Groups at the top of society tend to propagate and promote stereotypes about low status and competitive groups designed to help maintain and expand their dominance. Some of these stereotypes (e.g., Blacks as “brutish” or “athletic”) have long histories and deep roots and, further, were created to justify the hierarchical status quo. Thus, when we encounter certain targets (e.g., Blacks, Latinos, Arabs), we not only perceive them simply as “outgroups” but also bring to bear a set of specific expectations that influence how we see and subsequently treat them. From this perspective, the link between existing intergroup relations and perception is just as important as the link from social identities to intergroup behavior via perception (if not more so).

Our perspective also highlights the importance of considering individual motivations to maintain or challenge the social system. In some cases, perception is influenced not (only) by us versus them psychology or by stereotype content deriving from long-standing hierarchical social structures but due to direct motivations for hierarchy maintenance (e.g., when the stability of the hierarchy is under threat). Finally, because individual members of dominant and subordinate groups vary in their motivations for hierarchy (despite average group differences), paying attention to individual-level motives for hierarchy maintenance is important, with some work suggesting that these motives can even influence perception in ways that run counter to ingroup interests.

Of course, the perceptual effects of social identification on intergroup relations and the reverse pathways from existing intergroup relations to perception are not mutually exclusive, and indeed may even reinforce one another. For example, even if the ultimate cause of Whites judging targets with Afrocentric

features more punitively is stereotypes about Blacks rooted in social hierarchy (rather than ingroup membership per se), the resultant intergroup tension can further entrench intergroup differences, making it more likely that Whites and Blacks will withdraw to and feel stronger attachment with their respective ingroup identities. The activation of these ingroup memberships might then reciprocally impact the stereotypes influencing perceptual processes. Although not emphasized in their article, this is a possibility that Xiao et al.'s (this issue) model accommodates, given the bidirectional paths they posit (see Figure 1). Further outlining the ways in which features of the social system and ingroup membership interact with one another via perceptual routes is a promising avenue for future research and theoretical synthesis.

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