Biased Perceptions of Racially Diverse Teams and Their Consequences for Resource Support

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We examine whether observers hold biases that can negatively affect how racially diverse teams are evaluated, and ultimately treated, relative to racially homogeneous groups. In three experiments, which held the actual content of observed behavior constant across diverse and homogeneous teams, observers were less willing to allocate additional resources to diverse teams. Through applying both statistical mediation (Studies 1 and 2) and moderation-of-process methods (Study 3), our findings supported the expectation that biased perceptions of relationship conflict accounted for this reduced support of diverse teams. Implications for diverse teams in organizations are discussed.

Keywords: social category diversity; racial diversity; relationship conflict; resource allocation; biases; perception

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Introduction

The prevalence of teams in organizations along with the continued diversification of the workforce has made demographically diverse teams increasingly common. Recognizing the potential influence of diversity for both team processes and performance, research on this topic has grown steadily over the past few decades (see van Dijk et al. 2012, Mannix and Neale 2005, van Knippenberg and Schippers 2007, and Williams and O’Reilly 1998 for reviews). The findings, however, have been mixed. Some research has shown that demographically diverse teams—generally referred to as teams with social category diversity—can improve team dynamics and performance (e.g., Bantel and Jackson 1989, Lount and Phillips 2007, Loyd et al. 2013, McLeod et al. 1996, Phillips et al. 2006, Sommers 2006). Other research has shown that teams with social category diversity can experience greater interpersonal tensions (e.g., Jehn et al. 1999, Pelled 1996b, Pelled et al. 1999), leading to increased turnover and a greater risk of failure (e.g., Kochan et al. 2003, O’Reilly et al. 1989, Tsui and O’Reilly 1989). As a result, diversity research has increasingly examined moderators of the diversity-team performance relationship to shed light on when diversity might help, and when it might hurt.

Despite an improved understanding of the contingencies governing the diversity-performance relationship, researchers may be underestimating the importance of differential evaluations and treatment of diverse teams in accounting for performance differences. Namely, the success of diverse teams may, in part, be contingent on assessments of outside observers, who may hold negative assumptions or lay theories about how well categorically dissimilar individuals work together (e.g., that they are especially likely to experience interpersonal challenges). To the extent that this is so, such assumptions may bias an outside observer’s perceptions of team processes and ultimately his or her behavior toward these diverse teams. For instance, if a team’s manager believes the team is not working well together (regardless of whether or not this is the case), he or she may be more inclined to modify the team’s membership, withdraw financial support, or dissolve the team entirely, all of which could potentially affect its performance.

Providing some support for the possibility that diverse teams may be perceived more negatively by observers, a recent meta-analysis found that as team diversity increases, subjective performance assessments made by those external to the team become more negative; in contrast, no association was documented between increasing levels of team diversity and objective assessments of team performance (van Dijk et al. 2012). Recognizing that these results do not demonstrate an actual bias against diverse teams, or provide evidence that
diverse teams are evaluated unfairly relative to homogeneous teams as a result of these assessments, van Dijk et al. (2012) argue that experimental work is needed to more systematically examine whether biases against diverse teams actually exist and whether these biases may, in part, influence observer’s evaluations of diverse teams. Accordingly, to better understand whether the potential benefits of social category diversity may become derailed before they can be realized, the present work investigates whether racial diversity (an increasingly common form of diversity found in organizational teams) can bias observer assessments of group processes, and whether these biased assessments can negatively affect the support of diverse teams.

In undertaking the above, we focus specifically on perceptions of relationship conflict, as empirical research has regularly associated relationship conflict among team members with reduced team performance (e.g., Jehn 1995, Mohammed and Angell 2004) and satisfaction (De Dreu and Weingart 2003, Jehn et al. 1999). To develop our hypotheses, we draw upon social psychological research documenting how people’s schemas inform their judgments of social targets, as well as work suggesting that categorical differences between individuals can influence observers’ expectations about how such individuals relate to one another. Across three experiments, we test whether outside observers display biased perceptions of relationship conflict in evaluating racially diverse teams, and whether these biased perceptions account for reduced resource support for such teams.

**Conflict and Diversity in Groups**

Despite mixed findings regarding their performance, considerable research has found diverse teams to be more conflict laden than their homogeneous counterparts (see Jehn et al. 2008 and Williams and O’Reilly 1998 for reviews). Indeed, the link between social category diversity in teams and relationship conflict was first published over a decade ago, and has formed the basis of many theoretical models of diversity (i.e., Jehn et al. 1999, Pelled et al. 1999). Relationship conflict is defined as “interpersonal incompatibilities among group members, which typically includes tension, animosity, and annoyance among group members” (Jehn 1995, p. 258).

The link between diversity and relationship conflict is particularly concerning given that out of all conflict types, relationship conflict appears to be the most detrimental for team performance (see De Dreu and Weingart 2003, and De Wit et al. 2012 for meta-analytic reviews). Even among laypersons, there exists an expectation that teams experiencing relationship conflict should perform poorly (Sanchez-Burks et al. 2008). The dominant explanation for this relationship between social category diversity and relationship conflict is based largely on the social identity/self-categorization perspective (Mannix and Neale 2005, Pelled 1996b), which suggests that salient categorical distinctions, such as racial differences, can elicit negative interpersonal interactions within teams (Brewer 1995, Jehn et al. 2008). Whereas this logic accounts for problems that can arise within teams as a function of less positive behaviors displayed between teammates, the possibility that salient categorical distinctions may affect how individuals make sense of interactions in diverse teams raises an additional intriguing possibility; absent objective differences in conflict-related behavior, might categorical distinctions between group members lead individuals external to teams (i.e., outside observers) to go beyond the data available and see more relationship conflict in diverse teams than in homogeneous ones?

The notion that categorical distinctions can bias observers to see more relationship conflict in diverse than homogeneous teams may help explain some of the reported differences in processes and performance experienced by the former. This possibility would also have important practical implications, because it would suggest that those responsible for evaluating how well team members are working together, completing performance appraisals of teams, and allocating needed resources to them (e.g., managers; Hackman and Wageman 2005) might regularly make biased evaluations of, and subsequent decisions pertaining to, categorically diverse teams. For both these reasons, then, understanding whether and how observers’ perceptions of relationship conflict in teams are affected by a team’s composition is both practically and theoretically important. In the section below, we discuss literature relevant to the question of whether observers might form differing impressions of diverse and homogeneous teams—particularly with respect to relationship conflict—based on compositional differences between these two team types.

**Biased Perceptions in Diverse Settings**

Even while attempting to be objective, observers’ judgments of others’ (and of their own) behavior can be shaped by schemas and beliefs that can in some cases be biased (Fiske 1993). Schemas are sets of beliefs (e.g., assumptions, expectations, and generic prior knowledge) that organize and guide our memory for past events, as well as our expectations regarding future events. The tendency to rely upon such knowledge structures when judging others is particularly likely when individuals have to make sense of ambiguous information or have increased demands on their attention (Devine 1989, Operario and Fiske 2001), both of which are characteristic of managers, who frequently have limited insight into the inner workings of teams they manage and experience considerable cognitive demands because of their positions (Bazerman and Moore 2008).

When individuals evaluate others, be it at work or elsewhere, a variety of social cues about the target can influence and bias social judgments. For instance,
numerous studies have documented that a target’s membership in a broader social category can fundamentally affect a perceiver’s sense making with respect to the target, and thus, lead to stereotyping (for a review, see Macrae and Bodenhausen 2000). Such work has shown that stereotypes can bias our interpretations of others’ behavior, thereby leading us to treat these others differently. Of particular relevance to organizational scholars, stereotyping can affect important actions relevant to organizations, including leadership expectations (e.g., Carton and Rosette 2011, Sauer et al. 2010), personnel selection (e.g., Olian et al. 1988), and performance evaluations (e.g., Ford et al. 1986, Roberson et al. 2007).

Whereas the bulk of this prior work has examined how stereotypes influence perceptions of individuals, some studies have examined how schemas, and associated social category-based expectations, shape our perceptions of intergroup relations; that is, interactions between individuals of separate social categories, including those of different racial backgrounds (e.g., Duncan 1976, Brewer 1995). Through these studies, scholars have found that interactions between individuals of different social groups are often perceived as significantly less trusting and cooperative than those between individuals from the same social group (e.g., Brewer 2008, Kramer 1991). Furthermore, researchers have found that people tend to categorize their beliefs and memories of interactions in intergroup settings as being discordant and competitive in nature (e.g., Hoyle et al. 1989, Pemberton et al. 1996).

The category divide hypothesis (Miller and Prentice 1999) helps explain why observers may look upon interactions between categorically dissimilar others as more problematic than interactions between categorically similar others. According to this hypothesis, people tend to represent salient categorical features of others, such as their race, in essentialist terms. That is, people see individuals who belong to a given social category as sharing deep, underlying properties that make them who they are (i.e., that represent their essence) and assume that these properties are innate, immutable, and thus relatively unchangeable (Medin and Ortony 1989, Bastian and Haslam 2006). Prior research confirms that racial categories in particular are represented in essentialist terms (Haslam et al. 2000, Prentice and Miller 2007) and, on this basis, has argued that racial categories provide a strong basis for inductive social inferences (Yzerbyt et al. 1998). The logic behind this reasoning is that one’s race, as a deeply rooted, categorical, essentialist feature of the self, is expected to influence one’s values, norms, and general world view (e.g., Allen and Wilder 1975, Phillips 2003). For these reasons, the category divide hypothesis suggests that conflicts occurring between people of different races are more likely to be seen as stemming from differences in essential properties, making conflict seem more intractable and difficult to resolve than when conflict occurs between people of the same race. Providing some support for the category divide hypothesis, research participants observing a difficult negotiation reported less confidence that it would eventually result in an agreement when the negotiators were of different races than when they were the same race (Miller and Prentice 1999, Ybarra and Ramon 2004).

Although work supporting the category divide hypothesis suggests that observers may view conflict as more difficult to resolve when it occurs between people of different races, it is unclear whether the racial composition of a team might impact the degree to which observers notice conflict in the first place. We argue, however, that it should. Given the negative schemas that exist about intergroup settings (Pemberton et al. 1996), and that racial differences can lead people to expect underlying differences in values, beliefs, and norms between people (Allen and Wilder 1979), racial differences may prime observers to see more conflict in interracial settings than in homogeneous ones. Supporting this logic, Duncan (1976) found that observers evaluated a video-recorded shove between two boys as more aggressive when the boys were of different races than when they were of the same race. In the latter case, this same shove was perceived as being playful in nature. Thus, this work highlights that when interpreting an ambiguous situation (e.g., a shove between young boys), schemas about intergroup settings can affect how observers interpret the available information.

Although the above research suggests that when it comes to dyadic interactions, racial differences may bias observers to perceive heightened aggression that reduces their confidence in actors’ ability to resolve conflict, from these findings alone, it is unclear whether racial diversity would necessarily promote increased perceptions of relationship conflict in work teams. Watching two people with competitive goals at near impasse in a negotiation (Miller and Prentice 1999, Ybarra and Ramon 2004), or making sense of an ambiguous shove between two boys (Duncan 1976), may be cases where schemas surrounding racial diversity are particularly relevant. However, it is uncertain whether such schemas will necessarily affect evaluations when it comes to observing teams. Team settings differ from the dyadic interactions studied in past research, with one important difference being that individuals in teams typically work together toward a cooperative and shared goal. When teammates work on a cooperative decision-making task, the common team goal and inherent need for cooperation dictated by the context may reduce the impact of schemas about racial diversity. Accordingly, it remains an open question whether assumptions about intergroup interactions guide how observers make sense of conflict they observe within diverse teams. One goal of the
present research was thus to investigate this question empirically.

In line with prior work and theory detailed above, we expected that team racial composition would affect observers’ perceptions of relationship conflict. Namely, consistent with the notion that people hold schemas linking interracial interaction to more negative interpersonal relations (Brewer 1995, Hoyle et al. 1989, Pemberton et al. 1996), we predicted that observers encountering ambiguous, yet detectable levels of conflict within teams would report higher levels of relationship conflict in racially diverse teams than racially homogeneous ones.

**Hypothesis 1. All else being equal, observers of racially diverse teams will perceive more relationship conflict than will observers of racially homogeneous teams.**

### Consequences of Biased Perceptions of Relationship Conflict

Importantly, and as suggested earlier, biased perceptions of relationship conflict may ultimately go on to shape observers’ behaviors toward racially diverse teams. For instance, given that relationship conflict is frequently associated with lowered team performance (De Dreu and Weingart 2003), it follows that heightened perceptions of relationship conflict could have important consequences for how diverse teams are treated. Namely, in line with prior work suggesting that people expect relationship conflict to harm team performance (De Dreu and Weingart 2003), one might anticipate that individuals tasked with supervising teams should be less inclined to support teams that appear to experience higher levels of relationship conflict. Drawing upon this logic, we sought to test this presumed negative relationship between racial diversity, relationship conflict perceptions, and resource allocations to teams. If our findings yield evidence that social category diversity indeed translates into diminished willingness to provide continued financial support to a team, this may indicate that biased perceptions of relationship conflict are at least partially to blame when the performance of diverse work teams happens to be significantly lower than that of homogeneous teams. More formally, we hypothesized the following:

**Hypothesis 2A.** Observers will be less willing to allocate requested resources to racially diverse teams than to racially homogeneous teams.

**Hypothesis 2B.** Biased perceptions of relationship conflict will mediate the relationship between racial diversity and reduced willingness to allocate resources.

### Overview of Studies

Across three studies, we examined the impact of racial diversity on observers’ perceptions of relationship conflict in teams, and whether these perceptions reduce observers’ willingness to provide resources to diverse teams. In doing so, we sought to shed light on whether there exists an actual observer bias, and we provide an explanatory mechanism for observers’ differential treatment of diverse teams. Depending upon the study, participants read a transcript of a team discussion (Study 1), watched a video of a team discussion (Study 2), or listened to a discussion (Study 3) where the composition of the team was manipulated to be racially diverse or homogeneous. In each study, we kept the content of the teams’ discussion constant so as to remove the possibility that different assessments of conflict stemmed from actual differences in behavior across diverse and homogeneous teams. Additionally, given that negative information about a team’s performance can lead to biased perceptions of team processes (Guzzo et al. 1986, Martell and Guzzo 1991), we were careful in the current studies to not provide explicit information about whether the observed team was likely to perform particularly well or poorly in its task.

Studies 1 and 2 were conducted to test our hypotheses and proposed mediation model by examining whether biased perceptions of relationship conflict would statistically account for a decreased willingness to provide requested financial resources to racially diverse teams. Study 3 employed the moderation-of-process approach (Spencer et al. 2005) to provide greater causal evidence for the role of relationship conflict in promoting decreased financial support of racially diverse teams. That is, instead of measuring relationship conflict, we experimentally manipulated it in Study 3. Together, these three experiments provided an opportunity to rigorously test, as well as replicate, our proposed model across multiple settings and with different methodological approaches.

### Study 1

In Study 1, participants read a transcript of a team discussion and were asked to evaluate how much relationship conflict was present and how likely they would be to provide additional financial resources to the team. Given that schemas associating racial diversity with increased interpersonal friction should be relied upon primarily when conflict is detectable, yet ambiguous in nature, participants evaluated a team discussion that was written to contain detectable, yet only moderate levels of relationship conflict. The transcript read by all participants was identical, with the only difference being whether the team was shown as racially homogeneous or diverse.

In addition to testing our central hypotheses, we also examined whether diverse groups would be seen as having higher levels of task conflict. Task conflict is defined as conflict between team members around the task at hand (Jehn 1995). Although we have argued that negative schemas of diversity exist for relationship conflict, it
is possible that observers have a negative schema of conflict in diverse groups, regardless of conflict type. Given that task conflict has not been associated with schemas of racial diversity or empirically linked to racial diversity in the literature (e.g., Jehn et al. 1999, Pelled et al. 1999), we did not anticipate that this would be the case. However, we nevertheless sought to empirically rule out the possibility that racial diversity might negatively bias evaluations of conflict in general.

Method

Participants and Design. Seventy-two MBA students (58% male; mean age = 30.8; mean work experience = seven years) from a large northeastern university in the United States participated in this study in exchange for extra credit in an organizational behavior course. All were enrolled in a part-time MBA program for working professionals and 64.8% reported having managerial experience. The study took place around the midpoint of the semester, prior to any discussion of topics such as diversity and/or team conflict. Participants were randomly assigned to one of our two team composition conditions: racially homogeneous versus racially diverse.

Procedure. The study was described to participants as a managerial decision-making task. To create a situation where they would have some control over resources, we asked participants to imagine themselves as comangers of several four-person undergraduate summer intern teams at their firm, charged with overseeing and evaluating these teams’ work on a variety of summer projects. In this role, they had recently received a request from one of the teams for additional funding. Participants received photos of this team’s four male members, which were selected from eight college-aged male photos (four black, four white) that we obtained from a validated database of male faces (Minear and Park 2004). Depending on their assigned team composition condition, participants were shown a team that was racially diverse (i.e., two black and two white members) or racially homogeneous. We counterbalanced team composition such that within the homogeneous condition, participants evaluated one of two homogeneous teams (all black or all white).

Participants’ were told to imagine that they were a manager in this organization and needed to evaluate this intern team and its request. After doing so, they would be asked to indicate their likelihood of granting the request. Although the company had set aside money for additional funding should it be needed, it was not enough to additionally fund all summer intern teams. Thus, participants were told that additional funds should only be allocated to projects with promising futures.

To assist them in evaluating the above request, we provided participants with some brief background information on the team. Specifically, they were informed that at a previous meeting with the team, they and others had concerns about the team’s project, but none that could not be overcome through additional work and collaboration. We also provided participants with a transcript of a recent virtual project meeting of this team, which we noted was accessible to managers given that it had taken place through the company’s interoffice communicator. The transcript, which took several minutes to read, did not link specific comments to specific members, but rather was listed below the provided photographs of the alleged team members. The transcript of the team discussion was kept identical across all conditions and was written so that relationship conflict (e.g., tension, frustration, and irritation between team members) was detectable, yet moderate and somewhat ambiguous in nature. (See the online appendix, available as supplemental material at http://dx.doi.org/10.1287/orsc.2015.0994, for transcript details.) After reading the transcript, participants completed a posttask questionnaire containing our dependent measures.

Dependent Measures. To measure perceived relationship conflict, participants completed Jehn’s (1995) four-item measure of relationship conflict (α = 0.72), e.g., “How much relationship tension occurred in this group?” (1 = not at all; 7 = very much). We also measured perceived task conflict, using Jehn’s (1995) four-item scale (α = 0.52), e.g., “How often did this group experience conflicting opinions?” Although task conflict evidenced lower reliability than is typically desired, given that it is a previously validated measure, we still report its outcomes.

Finally, to assess willingness to provide additional resources to the team in question, we had participants respond to two items (α = 0.82) specifically designed for this purpose: (1) “How likely are you to comply with the team’s request for additional resources?,” and (2) “How likely are you to decline to fund the team’s request for additional resources in favor of diverting those resources elsewhere?” (reverse coded) (1 = not at all; 7 = very much so). Higher numbers on this two-item measure indicated greater likelihood of complying with the funding request. After completing some additional demographic questions, participants were debriefed and excused.

Results and Discussion

Preliminary analyses showed no differences in perceived relationship conflict between the counterbalanced cells of the homogeneous conditions (all black [M = 3.91] versus all white [M = 4.29], F(1, 31) = 2.23, p = 0.15). Similarly, no difference was found between these two homogeneous cells for the willingness to give more resources (M = 3.34 versus M = 3.65), F(1, 31) = 0.39, p = 0.54. We thus collapsed across our two cells in this condition prior to conducting our primary analyses.
Main Analyses. To test the prediction that more relationship conflict would be reported when the team was racially diverse, participants’ evaluations of relationship conflict were submitted to a one-way analysis of variance (ANOVA). As hypothesized, results showed that racially diverse teams were perceived to have significantly higher levels of relationship conflict, $M = 4.64$, $SD = 0.93$, than homogeneous teams, $M = 4.11$, $SD = 0.76$, $F(1, 70) = 6.94$, $p = 0.01$, despite the fact that the actual observed behavior of the team was held constant across the two conditions.

When examining perceived levels of task conflict, however, no difference emerged between the racially diverse, $M = 4.06$, $SD = 0.95$, and homogeneous teams, $M = 3.97$, $SD = 1.01$, $F(1, 70) < 1$, $p = 0.69$. Thus, racial diversity did not bias all types of perceived conflict; rather, observers primarily made category-based assumptions about relationship conflict. These results are consistent with our expectation that perceptions of task conflict are less biased when it comes to diverse groups, given that there are fewer salient schemas associating racial diversity and task conflict.

We next tested our prediction that racially diverse teams are less likely to be awarded additional resources than homogeneous teams (Hypothesis 2A). An ANOVA showed that participants reported being less likely to comply with the resource requests of racially diverse teams, $M = 2.95$, $SD = 1.21$, than with those of homogeneous teams, $M = 3.50$, $SD = 1.37$, $F(1, 70) = 3.27$, $p = 0.075$, albeit marginally less so.

Mediation Analysis. To test whether biased perceptions of relationship conflict would account for this reduced willingness to support diverse teams, we performed a mediation analysis in ordinary least squares (OLS) regression using the bootstrapping method to test for an indirect effect (Hayes 2013). As shown in Figure 1, racially diverse teams were seen as having higher levels of relationship conflict ($\beta = 0.30$, $p = 0.01$) and there was a negative relationship between relationship conflict and willingness to provide additional resources ($\beta = -0.41$, $p < 0.01$). The direct effect path from diversity to willingness to provide additional resources was not significant ($\beta = -0.09$, $p = 0.44$). To test for an indirect effect, we calculated 95% bias-corrected confidence intervals (CI) using 5,000 bootstrap samples (MacKinnon et al. 2004). The confidence intervals did not overlap zero (lower CI = −0.70; upper CI = −0.09), indicating support for our prediction that the effect of team composition on reduced willingness to allocate additional resources would be mediated by biased perceptions of relationship conflict (Hypothesis 2B).

Study 2

In this second study, we sought to replicate and bolster the generalizability of our findings to contexts where observers may actually be in a position to witness teams interacting firsthand. After all, most managers are likely to observe at least some team interaction, rather than being limited to reading a transcript, such as an email exchange between team members, or being told about a team’s interaction by others. To this end, we asked participants in our second study to evaluate and express their willingness to provide requested additional resources to a student leadership team. In the current study, we had participants view a videotaped discussion of a team, rather than read a transcript. In doing so, we again held the members’ behavior and their discussion constant, manipulating only the racial composition of the group (i.e., whether the group they saw was racially homogeneous or racially diverse).

Method

Participants and Design. Three hundred forty-five undergraduates (male = 56%; mean age = 21.50) from a large midwestern university in the United States participated in this study in exchange for extra credit in an introductory management course. As in Study 1, we randomly assigned participants to one of two team composition conditions: racially diverse versus racially homogeneous. We counterbalanced team composition such that within the homogeneous condition, participants evaluated one of two homogeneous teams (all black or all white). Within the diverse condition, participants evaluated one of two diverse teams (both of which were composed of two black and two white student actors).3

Procedure. Participants arrived to the lab where they completed the study while working on a computer in a private cubicle. Participants were informed that they would be undertaking a decision-making task for the study. To create a situation where participants would have some control over outcomes of the team, we asked them to imagine themselves as part of a university student committee charged with allocating school resources to student clubs and teams around campus. In this role, they had recently received a request for additional resources from the leadership team of one particular student club on campus, allegedly to complete a big two-year project. Their task was to evaluate this four-person team and then indicate their likelihood of complying with its request for additional resources.

Figure 1 Mediation Results from Experiment 1

* $p < 0.05$; ** $p < 0.01$. 

Notes. Team diversity (1 = diverse; 0 = homogeneous). 95% Bootstrap confidence intervals of indirect effect: lower CI = −0.70; upper CI = −0.09. Beta weights are standardized. 

**Table**

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<tr>
<th>Team diversity</th>
<th>Relationship conflict</th>
<th>Willingness to give additional resources</th>
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<td>0.30 **</td>
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To aid them in this task, participants were asked to watch and listen to an approximately 90-second video clip of the four-person team at a meeting. In the video, team members had a brief discussion, where all members voiced their opinions regarding an upcoming event they were organizing. As in Study 1, relationship conflict was present in the discussion (primarily in the form of mild frustration and tension expressed by members during the discussion) but was kept moderate and ambiguous. Eight student actors (four black males and four white males) were recruited and trained to play team members in the filming of our two experimental conditions. Actors were not informed about the purpose of the study, and across both diverse and homogeneous settings, were instructed to display identical verbal and nonverbal behaviors.

Participants assigned to the homogeneous condition watched a video of four black actors or a video of four white actors. Participants assigned to the diverse condition watched a video of two black and two white actors containing conflict between teammates of different races. After watching the video, participants completed a post-task questionnaire containing our dependent measures.4

**Dependent Measures.** To measure perceived relationship conflict, we had participants complete the same four-item measures of relationship conflict ($\alpha = 0.83$) and task conflict ($\alpha = 0.67$) administered in Study 1 (1 = not at all; 7 = very much). We also measured their willingness to provide additional resources to the team using the same two-item scale used in Study 1 ($\alpha = 0.71$). After completing some additional demographic questions, participants were debriefed and thanked for their time.

### Results and Discussion

Analyses showed no differences in perceived relationship conflict between our homogeneous conditions (all black [$M = 4.20$] versus all white [$M = 4.04$]), $F(1, 173) = 0.82, p = 0.37$. Moreover, participants did not differ in their willingness to provide additional resources to the team between our two homogeneous conditions (all black [$M = 4.10$] versus all white [$M = 3.82$]), $F(1, 173) = 2.31, p = 0.13$. We thus collapsed across these two conditions prior to conducting our primary analyses.

**Main Analyses.** To test the prediction that more relationship conflict would be reported when the evaluated team was racially diverse, perceptions of relationship conflict were submitted to an ANOVA. Replicating our findings from Study 1 and providing additional support for Hypothesis 1, participants who evaluated a racially diverse team reported higher levels of relationship conflict ($M = 4.50, SD = 0.94$) than those who evaluated homogeneous teams ($M = 4.11, SD = 1.14$), $F(1, 343) = 11.51, p < 0.001$. We also tested for differences in perceived task conflict between the two conditions. As in Study 1, no differences in task conflict were reported by participants who observed racially diverse teams ($M = 4.73, SD = 0.84$) and those who observed racially homogeneous teams ($M = 4.63, SD = 0.96$), $F(1, 343) = 0.90, p = 0.34$.

Next, we submitted our two-item measure of willingness to allocate requested resources to the team to an ANOVA. Once again supporting Hypothesis 2A, participants reported being significantly less likely to comply with the resource requests of a racially diverse team ($M = 3.59, SD = 1.08$) than with those of a racially homogeneous team ($M = 3.96, SD = 1.24$), $F(1, 343) = 8.95, p = 0.003$.

**Mediation Analysis.** As in Study 1, we used OLS regression and calculated bias-corrected CI using 5,000 bootstrap samples to test for an indirect effect. As shown in Figure 2, racially diverse teams were seen as having higher levels of relationship conflict ($\beta = 0.18, p < 0.001$) and there was a negative relationship between relationship conflict and willingness to provide additional resources ($\beta = -0.36, p < 0.001$). The direct effect path from diversity to willingness to provide additional resources was not significant ($\beta = -0.09, p = 0.06$). The confidence intervals of the indirect effect did not contain zero (lower CI = −0.26; upper CI = −0.07), thus supporting our prediction that biased perceptions of relationship conflict mediate the effect of racial diversity on observers’ willingness to provide additional resources (Hypothesis 2B).

Taken together, these results both replicate and extend our findings from Study 1, showing once again, in a new scenario, that racial diversity biases observers’ perceptions of conflict and their treatment of such teams. As in Study 1, participants perceived higher levels of relationship conflict, but not task conflict, in diverse teams as compared to homogeneous teams. Importantly, these biased perceptions of relationship conflict in turn influenced how willing participants were to provide additional resources to diverse teams. Replicating this effect among participants who were asked to observe teams actually interacting, rather than to simply read a written transcript (as in Study 1), allows for increased confidence regarding the robust nature and potential generalizability of our proposed model.

![Figure 2 Mediation Results from Experiment 2](image-url)

Notes. Team diversity (1 = diverse; 0 = homogeneous). 95% bootstrap confidence intervals of indirect effect: lower CI = −0.26; upper CI = −0.07. Beta weights are standardized. **$p < 0.01$.**
Study 3

Our first two studies provide support for our prediction that observers’ biased perceptions of relationship conflict in diverse teams accounts for a lowered willingness to support these teams, as compared to their homogeneous counterparts. The logic underlying these more negative evaluations has been that when encountering ambiguous, yet detectable, levels of relationship conflict in a group, people’s schemas of diversity lead them to perceive it as more severe and higher when the group is diverse, compared to when it is homogeneous. Although Studies 1 and 2 have demonstrated, via statistical mediation analyses, that this increased relationship conflict accounts for a decreased willingness to provide additional resources, statistical mediation relies upon correlational analyses between the mediator and the outcome variable. Although statistical mediation is perhaps the most common method used by researchers interested in testing underlying mechanisms, the link between the mediator and outcome variable cannot be completely termed “causal,” given that the mediator and outcome variable are both measured. Thus, in Study 3, we turned to another method for testing a mediation model, referred to as the “moderation-of-process approach” (Spencer et al. 2005). This involves conducting an experiment where the proposed mechanism is manipulated rather than measured (for an example see Loyd et al. 2013). Through manipulating the proposed mediator, and observing its impact on the outcome variable, one is able to provide a stronger claim of causality (Imai et al. 2013, Spencer et al. 2005).

Specifically, we manipulated relationship conflict to be either moderate or high in both racially diverse and homogeneous groups and then examined the effect on resource allocation. When conflict levels are moderate, and thus more ambiguous in nature, diverse groups should be allocated fewer resources than their homogeneous counterparts (i.e., as documented in Studies 1 and 2). However, consistent with our proposition that biased perceptions of relationship conflict underlie this effect, when relationship conflict is heightened and no longer ambiguous, making schema reliance less likely, homogeneous and diverse groups should be treated similarly.

Method

Participants and Design. Two-hundred and four adults in the United States (male = 56%; mean age = 32.30), recruited from Amazon’s MTURK service (Buhrmester et al. 2011), completed our study in exchange for payment. Participants were randomly assigned to one of four conditions in a 2 (team composition: diverse versus homogeneous) x 2 (relationship conflict: moderate versus high) between-participants design.

Procedure. The materials and procedure were near identical to those in Study 1. Participants were told to imagine they were a manager of an intern team who had the potential to provide additional resources to the team. However, this study was conducted online and participants were required to have functioning speakers or headphones in order to participate. Whereas in Study 1 participants read a transcript of the team discussion, in Study 3, they instead listened to a discussion. Specifically, we had four male voice actors read the lines associated with the four team members from the transcript used in Study 1.

Consistent with Study 1, we manipulated team composition by placing pictures of these team members across the top of participants’ computer screen while they listened to the discussion. Homogeneous teams consisted of four black men or four white men (counterbalanced), whereas the diverse team consisted of two black men and two white men. Participant photos were randomized at the top of the screen and not explicitly associated with any particular voice actor.

Relationship conflict was manipulated through varying the level of audible relationship conflict in the discussion. In the moderate relationship conflict condition, the voice actors were instructed to display moderate levels of tension, sarcasm, and frustration between group members. As in Studies 1 and 2, the level of relationship conflict present was by design detectable, yet somewhat ambiguous in nature. In the high relationship conflict condition, we kept the task-based content of the discussion identical, but now increased the level of explicit relationship conflict by augmenting the expressed tension, sarcasm, and frustration. Accordingly, in this latter condition, it was clear that the team was experiencing higher interpersonal tension and frustration; it was no longer ambiguous in nature.5

After listening to the discussion, participants completed the same two-item willingness to fund scale (α = 0.88) used in Studies 1 and 2 (1 = not at all; 7 = very much). Participants then reported their demographic information and were thanked for their time.

Results and Discussion

No differences emerged between participants in terms of their willingness to fund homogeneous teams consisting of all black (M = 3.87) versus all white (M = 3.81) team members, F < 1. Additionally, racial homogeneity (all black versus all white) did not statistically interact with conflict level (moderate versus high) in predicting willingness to fund, F < 1, highlighting that homogeneous teams (irrespective of race) were evaluated similarly within their respective conflict conditions. Thus, as in Studies 1 and 2, we collapsed across the homogeneous conditions.
**Main Analyses.** Participants’ willingness to fund the team was analyzed in a two-way ANOVA. A main effect emerged for the relationship conflict factor, with participants who listened to the high relationship conflict discussion reporting a lower willingness to fund, \( M = 3.50, SD = 1.38 \), than participants who listened to the moderate relationship conflict discussion, \( M = 4.03, SD = 1.45 \), \( F(1,200) = 8.00, p = 0.005 \). There was no main effect for team composition, \( F < 1 \). The predicted interaction between relationship conflict and team composition was significant, \( F(1,200) = 5.12, p = 0.02 \). Providing further support for Hypothesis 2A, simple effects tests showed that when relationship conflict was moderate, participants were less willing to provide additional resources to the diverse team, \( M = 3.75, SD = 1.46 \), than to the homogeneous team, \( M = 4.34, SD = 1.38 \), \( t(200) = 2.14, p = 0.03 \). However, when exposed to a higher level of relationship conflict in the group discussion, participants no longer reported a lowered willingness to provide more resources to the diverse team, \( M = 3.64, SD = 1.26 \), relative to the homogeneous one, \( M = 3.34, SD = 1.50 \), \( t(200) = 1.06, p = 0.29 \) (see Figure 3).

These results provide further support for the role of perceived relationship conflict in shaping support for racially diverse teams. More broadly, through applying the moderation-of-process approach (Spencer et al. 2005), this study provides stronger causal evidence for our proposition that biased perceptions of relationship conflict translate into reduced support for racially diverse teams, relative to their homogeneous counterparts (Hypothesis 2B).

**General Discussion**

Although actual levels of conflict were held constant across diverse and homogeneous teams, participants in our studies perceived higher levels of relationship conflict in diverse teams, and were less willing, as a result, to financially support them. This finding is in line with our expectation that observers hold schemas that link racial diversity with expectations of increased interpersonal friction and conflict among team members. When conflict levels were detectable, yet somewhat ambiguous in nature, participants perceived greater interpersonal problems in racially diverse teams, and allocated fewer resources to the former. Our results thus show that biased perceptions of relationship conflict in diverse teams have implications for how people behave toward (e.g., make decisions with respect to) such teams, potentially explaining some prior research documenting that diverse teams are less likely to succeed than their homogeneous counterparts in organizational settings (Bell et al. 2011). Specifically, through employing both statistical mediation (Studies 1 and 2) and moderation-of-process methods (Study 3), we found that increased perceptions of relationship conflict explained the link between racial diversity and decreased willingness to provide additional requested financial resources to diverse teams. The findings of Study 3 document that it is necessary for relationship conflict to be high, and no longer ambiguous in nature, before racially homogeneous teams are treated similarly to their racially diverse counterparts.

Whereas prior work has shown that diverse teams tend to be evaluated worse by their supervisors than their homogeneous counterparts (van Dijk et al. 2012), our results suggest that biased perceptions of team processes, rather than actual differences in their behavior, may in part account for diverse teams being evaluated, and treated, differently than homogeneous teams. Taken together, the present findings highlight that when conflict is moderate and ambiguous in nature, racial diversity can increase the probability of a team receiving more negative evaluations as compared to a homogeneous counterpart—evaluations that may in turn elicit negative downstream behavioral reactions from others.

**Implications for Leading and Managing Organizational Diversity**

We believe that our results are of particular relevance to scholars and practitioners interested in better understanding how team diversity influences the manner in which work teams are managed. The racial composition of a team is a stable contextual feature, which not only exerts influence on the individuals in the team (Cronin et al. 2011), but can influence outside observers’ perceptions and behavior toward the team. Given that managers are rarely involved in every aspect of group interaction, they must often infer processes and potential...
performance via limited sources of information, relying upon shortcuts that encourage schema reliance (Operario and Fiske 2001). The current research highlights that schemas of racial diversity can influence how observers perceive diverse teams, and in turn, how they behave toward them. Our findings show that observers are prone to making biased evaluations of how well members of diverse teams are getting along with one another. One consequence of such biased judgments, we suggest, is that managers may be less inclined to provide diverse (as compared to homogeneous) teams with adequate resources needed to complete projects. In this way, biased managerial evaluations of diverse work teams may (unintentionally) create a negative spiral for such teams, because a lack of sufficient support may make it even more difficult for these teams to prove managers’ impressions wrong and show their worth to the outside world.

While this is undoubtedly a troubling implication, we would also suggest that there are potential remedies that organizations and their members might employ to curtail such biased evaluations. For instance, for leaders and managers regularly charged with evaluating team processes and expected performance, cultivating a simple awareness that bias on their part can lead to negative evaluations of diverse teams might well help reduce the impact of these biases (Monteith et al. 1998). If managers are aware of these biases when charged with evaluating diverse teams, they may better avoid making decisions under conditions where schema reliance is likely to be exacerbated (e.g., when faced with time demands, constraints on their attention, ambiguous information, etc.). Additionally, they may seek to take additional time when evaluating diverse teams, perhaps dedicating that extra time to talking with multiple team members about their experiences in the team.

Members of diverse teams themselves may also play an important role in affecting how their team process and performance is evaluated by managers and outside observers. Given that they may be judged more harshly than their homogeneous counterparts, individuals in diverse teams might seek to play “offense” and proactively ensure that outsiders know about positive aspects in the team. The need to manage impressions may be especially critical if a team experiences arguments to which outsiders are exposed, irrespective of whether such arguments happen to be relational in nature. Aside from training their particular manager about potential biases in evaluating diverse teams, the onus may often be on members of diverse teams themselves to ensure that the team is not unfairly perceived as dysfunctional. We expect that this would be particularly important in situations where managers have infrequent contact with the team, or in settings where teams are performing long and particularly difficult tasks (e.g., R&D teams seeking to develop new technologies).

Toward an Explanation for Prior Discrepancies in Diversity Research

Finally, it is worth noting that our findings seemingly offer a potential explanation for why researchers examining the effects of racial diversity on team performance have frequently found different results in the field than in the laboratory (Williams and O’Reilly 1998). For instance, results from a recent meta-analysis found a relationship between racial diversity and lowered team performance for field studies, but no such relationship for studies conducted in laboratory settings (Bell et al. 2011). In light of our findings, it is plausible that in organizations, outsiders’ biased perceptions of diverse teams may actually be limiting these teams’ ability to perform effectively. In laboratory-based investigations, there is typically an objective outcome of performance, and a team’s success does not depend upon an outsiders influence on the team (e.g., Antonio et al. 2004, Phillips et al. 2006, Sommers 2006, Sommers et al. 2008). However, in field studies, performance can be affected by the behavior of managers, whose willingness to provide required resources can shape team outcomes. As such, biased evaluations and the differential treatment that follows may help, in part, account for why diverse teams have been found to perform worse than their homogeneous counterparts in field studies.

In addition to helping account for why diverse teams may perform worse in field settings, given that measures of team performance are commonly obtained from managers, evaluations of their performance may also be affected by biased perceptions that favor homogeneous teams. Such a possibility is consistent with the recent findings of van Dijk et al. (2012), who documented in their meta-analysis that whereas subjective evaluations of team performance become more negative as teams became more diverse, no such relationship exists between levels of diversity and objective measures of performance. Thus, those attempting to make inferences from studies examining the relationship between team diversity and performance may wish to pay special attention to whether the teams in question are evaluated objectively or subjectively (as the latter may, in part, be shaped by the biases of the evaluator).

Limitations and Future Directions

Although we have argued that our findings have implications for better understanding how social category diversity in teams can promote biased observer perceptions, it is important to note that our current findings may be limited to the effects of racial diversity (specifically in terms of black and white men) on biased perceptions of relationship conflict. Whereas salient events in history may have contributed to forming expectations that blacks and whites may have difficulties in getting along (Richeson and Shelton 2007), other forms of racial diversity or categorical diversity (e.g., gender diversity) may be less
associated with negative schemas. That said, we believe that many innate categorical distinctions will still trigger a lowered expectation of smooth interactions (Miller and Prentice 1999), as evidenced by the fact that most people tend to associate with individuals who are demographically similar to themselves (McPherson et al. 2001). Additionally, there exist commonly held beliefs that differences exist between individuals of different social categories (e.g., statements such as “men are from Mars and women and from Venus” suggest inherent challenges of smooth relations between the genders). Thus, one might anticipate that biased perceptions of relationship conflict may still occur in response to other types of categorical diversity, although these effects might be weaker or less pronounced than the effects obtained for racial diversity. Future research is needed to explore these possibilities.

Future research might also seek to explore ways to eliminate or reduce the impact of racial diversity on biased perceptions and evaluations when relationship conflict is moderate. For instance, one might anticipate that knowledge about the previous relationship between coworkers might affect how people interpret observed conflict. In each of the present studies, we intentionally left the previous relationship between team members ambiguous, although it was implied that these groups were not composed of complete strangers. One might anticipate that if team members are said to have a long and positive history with one another, observers might rely less on their particular schemas of diversity to interpret team dynamics, and instead may give more credence to the possibility that any observable conflict or disagreement is a function of members preexisting comfort with each other.

Lastly, although the current paper focuses on whether observers’ perceptions of relationship conflict can be biased by a team’s racial composition, one could easily imagine extending the logic underlying our findings to predict and explain perceptions of relationship conflict among members of diverse teams themselves. Although further research is clearly required to test the possibility, schemas associating racial diversity with increased interpersonal conflict and tension might also affect how we react to conflict we observe between colleagues or teammates of different races, as well as how we react to interpersonal conflict that we personally experience. Indeed, mirroring the circumstances of observers in the present research, there would seem to be numerous instances in everyday life where interpersonal conflict can be moderate and ambiguous (e.g., being told by one’s teammate to be quiet so they can finish what they are saying). In such circumstances, schemas surrounding diversity may lead us to interpret the ambiguous actions of others as evidence of interpersonal friction, simply based on beliefs triggered by differences in race, leading to higher evaluations of relationship conflict in diverse teams.

Conclusion
As organizations become increasingly more diverse, finding effective ways to manage diverse teams will likely be a source of competitive advantage. Having a good understanding of what is happening in those teams is a critical step for managers so that they can accurately evaluate their decision-making processes and performance levels. Managers who expect racial diversity to lead to increased relationship conflict may evaluate these teams negatively and seek to reduce or eliminate diversity when assembling teams. As such, the current work highlights that organizations would be well advised to consider that some of the negative experiences reported in diverse settings may be more a function of biased conflict perceptions than actual differences in behavior.

Supplemental Material
Supplemental material to this paper is available at http://dx.doi.org/10.1287/orsc.2015.0994.

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Endnotes
1Using AMOS 21.0, we compared a single factor model (i.e., where all relationship conflict and task conflict scale items were modeled on the same latent variable) with a two-factor model (i.e., where task and relationship conflict items were modeled on separate latent variables). The two-factor model fit the data significantly better than the single factor model ($\Delta \chi^2 = 5.58, p < 0.05$). Additionally, in Study 2, the two-factor model of task and relationship conflict fit the data better than the single factor model ($p < 0.01$). These findings are consistent with prior research using these scales, which has demonstrated that they capture separate facets of conflict (e.g., Jehn 1995).

2We conducted supplemental analyses where we reran our primary analyses with task conflict included as a control variable. Controlling for task conflict did not affect the significance of our ANOVAs, nor did it impact the significance of our mediation analysis in either Studies 1 or 2.

3No differences in either perceived relationship conflict, $F(1, 168) = 2.18, p = 0.14$, or willingness to provide additional resources, $F(1, 168) = 1.62, p = 0.20$, were found across our two racially diverse video stimuli, highlighting that participants evaluated these two videos of racially diverse actors similarly.

4Although we instructed our actors to behave identically across video recordings, we conducted two pilot studies to ensure this was the case. Our first pilot study was conducted to rule out that our actors might have unconsciously expressed more relationship conflict in their voices when in a diverse group. In this first pilot study, undergraduate participants ($N = 101$) read the same information leading up to the video as participants in our main study, but participants in this pilot study only listened to the audio of the discussion and were not shown the image of the group. As such, they were not shown the
racial composition of the group. A one-way ANOVA found no differences in perceptions of relationship conflict across our video recordings, $F < 1$, nor were there differences found when specifically comparing the audio in our homogeneous and diverse conditions, $F < 1$. In the second pilot study, undergraduate participants ($N = 95$) evaluated our actors’ nonverbal behaviors. Following procedures detailed by Apfelbaum et al. (2008), participants were randomly assigned to watch a video from Study 2; however, we removed the audio and cropped the video image so that they could only see the two-same race teammates throughout the entire video. Thus, actors in each of the videos were evaluated by participants blind to condition and who were only able to see two of the four actors present at the table. Participants watched the cropped and muted video twice and evaluated the two visible teammates separately. In doing so, they evaluated nine negative nonverbal behaviors ($\alpha = 0.85$) (e.g., tense, rigid, unfriendly; see Richeson and Shelton 2005 for full nine-item scale) on a five-point Likert scale, rating how much each actor displayed behaviors in question ($1 = \text{not at all}; 5 = \text{very much}$). Evaluations from all actors within each video were then averaged together to create a total group score for each video used in Study 2. A one-way ANOVA found no differences for perceived nonverbal behaviors across the videos, $F(3, 91) = 1.33$, $p = 0.27$, nor were there differences when specifically comparing the nonverbal behaviors in our homogeneous and diverse conditions, $F < 1$. Taken together, the results of these two pilot studies show that our actors were successful in not expressing meaningful differences in their voices and/or nonverbal behaviors across recordings, thereby ruling out a potential alternative account for why we might have found differences in perceived relationship conflict across our homogeneous and diverse team conditions in this study.

To ensure that the audio-based manipulation of relationship conflict in Study 3 worked, we conducted a pilot study where participants from Amazon’s MTURK service ($N = 58$) were randomly assigned to listen to either the moderate relationship conflict discussion or the high relationship conflict discussion. After listening, they completed the same four-item relationship conflict and task conflict ($\alpha = 0.89$) and four-item task conflict ($\alpha = 0.70$) scales used in Studies 1 and 2 ($1 = \text{strongly disagree}; 7 = \text{strongly agree}$). Results showed that, as intended, participants reported greater levels of relationship conflict in the high relationship conflict clip ($M = 5.11$) compared to in the moderate relationship conflict clip ($M = 3.92$), $F(1, 56) = 14.81$, $p < 0.001$. However, no difference emerged for perceptions of task conflict between the high ($M = 5.08$) and moderate conditions ($M = 4.78$), $F(1, 56) = 1.70$, $p = 0.20$. These results show that our voice actors in Study 3 successfully varied the level of detectable relationship conflict between the two conditions, without altering the perceived task conflict.

References


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