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When Disagreement Gets Ugly: Perceptions of Bias and the Escalation of Conflict

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It is almost a truism that disagreement produces conflict. This article suggests that perceptions of bias can drive this relationship. First, these studies show that people perceive those who disagree with them as biased. Second, they show that the conflict-escalating approaches that people take toward those who disagree with them are mediated by people's tendency to perceive those who disagree with them as biased. Third, these studies manipulate the mediator and show that experimental manipulations that prompt people to perceive adversaries as biased lead them to respond more conflictually—and that such responding causes those who engage in it to be viewed as more biased and less worthy of cooperative gestures. In summary, this article provides evidence for a “bias-perception conflict spiral,” whereby people who disagree perceive each other as biased, and those perceptions in turn lead them to take conflict-escalating actions against each other (which in turn engender further perceptions of bias, continuing the spiral).

Keywords: *bias; objectivity; interpersonal perception; disagreement; conflict*

There ain't no good guy, there ain't no bad guy
There's only you and me and we just disagree . . .
So let's leave it alone 'cause we can't see eye to eye

Jim Krueger, 1977

Why can't we all just get along? Why is it that people yell, fight, and go to war? Some would argue that there is an obvious answer to these questions—namely, that people disagree about things (political issues, ideology, allocations of resources, etc.) and that such disagreements cause conflict to erupt. But why is it that people

who “just disagree” cannot just “leave it alone”—or, better yet, try to resolve their disagreements peacefully?

All too often, disagreement and conflict seem to breed further disagreement and conflict in a seemingly endless cycle. Indeed, scholars have referred to a “conflict spiral” whereby adversaries take turns aggressing against each other, each believing that the conflict began with the other side's offenses and that their own actions are merely a defensive response (e.g., Deutsch, 1973; Pruitt & Kim, 2004). But, of course, there also are times when people pursue their disagreements with calm discussion, civil debate, and efforts to reach acceptable compromises. So what is it that causes disagreements to spiral into conflicts?

Perceptions and the Conflict Spiral

Past research suggests that it is not disagreement or opposing interests alone but rather the perceptions that people have about those disagreements and interests

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We Just Disagree, Words and Music by Jim Krueger
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that determine how they react. For example, people's decision to aggress can derive from their perception that their situation has fallen short of reasonable expectations and is therefore unjust and unacceptable (e.g., Crosby, 1976; Davies, 1962; Guimond & Dambrun, 2002). In addition, people's pessimism about cooperating can derive from their perception that the conflict is just too large, that is, that the two sides are simply too far apart from each other (e.g., Robinson, Keltner, Ward, & Ross, 1995; Sherman, Nelson, & Ross, 2003). We propose that a different perception, one that characterizes how people see their *opponents*, affects how people react to disagreement. Past theoretical work has speculated that perceptions of bias on the part of adversaries can exacerbate conflicts and deter their resolution (Pronin, Gilovich, & Ross, 2004; Ross & Ward, 1995). We hypothesize that people generally perceive their opponents as biased and that this perception in turn causes them to act in ways that are competitive, aggressive, and conflict escalating.

Bias Perception

Much research suggests that people are inclined to view other people as biased, even while they fail to recognize their own biases (see Pronin, 2007, for review). This asymmetry arises in part because people are *naïve realists*; that is, they believe that they see the world as it really is in "objective reality" (Ross & Ward, 1995; see also Ichheiser, 1949; Pronin et al., 2004). This belief, it has been posited, will prompt people to assume that if others do not share their view of reality then those others must be either ill informed or (having ruled out that possibility) incapable or unwilling to view things objectively.

This theorizing suggests that imputations of bias will be especially common in disagreement, when people inevitably do not "see eye to eye." Some research findings support this hypothesis. A few studies have looked at people's perceptions of specific influences that compromise objectivity. Studies have shown people's inclination to view those whose opinions differ from their own as influenced by self-interest (Reeder, Pryor, Wohl, & Griswell, 2005), personal affections (Frantz, 2006), political partisanship (Cohen, 2003), an inability to see things fairly (Ehrlinger, Gilovich, & Ross, 2005), and unwavering ideology (Robinson et al., 1995). However, these studies have generally concerned specific influences, such as self-interest, rather than the more general notion of "bias." For example, Reeder et al. (2005) showed that the more people disagreed with President Bush's decision to invade Iraq, the more they saw that decision as motivated by self-interest. The only studies we are aware of exploring the role of bias perception in disagreement more generally are two by Ross and

colleagues that are described in Pronin et al. (2004). One surveyed American students about a range of possible responses to the then-recent 9/11 terrorist attacks and found a correlation between the degree to which those responses diverged from participants' own preferred response and the degree to which participants thought that people who preferred those responses would be biased. In the other study, participants saw a peer's self-rated positions on 10 political issues; the more participants disagreed with that peer, the more they felt that he or she was influenced by non-normative rather than normative concerns. These studies suggest that when people find themselves disagreeing with one another, they are prone to view each other as biased. In this article, we first seek evidence consistent with that hypothesis and then explore the consequences of it for the progression from disagreement to conflict.

Responses to Disagreement

Our research concerns the role of bias perceptions in the path from disagreement to conflict. Here, we refer to disagreement as a difference between parties in their views or opinions, and we refer to conflict as the state of opposition, quarreling, strife, or competition that can arise (but does not always) from such differences. Conflict researchers have outlined two key ways in which people respond to conflict and disagreement: conflict-escalating *competitive* behavior and conflict-deescalating *cooperative* behavior (Blake & Mouton, 1964; De Dreu & Carnevale, 2003; Deutsch, 1973; Pruitt & Kim, 2004). We suggest that people's inclination to choose conflict-escalating approaches over deescalating approaches may reflect their perception, induced by disagreement, that their opponents are biased. When dealing with an opponent whom one views as incapable of seeing things objectively (or at least unwilling to do so), one may conclude that cooperative efforts (such as sitting down to talk things out or providing relevant facts and arguments) are less than promising. A person whose views are distorted by bias, after all, would not have the "good sense" to recognize an "objectively fair" perspective even if it were offered. It may seem, then, that a good alternative for dealing with such an opponent is to behave competitively. Although previous research has not examined the effects of bias perception on conflictual action, a pair of experiments by Pronin, Kennedy, and Butsch (2006) is suggestive of that relationship. Participants read depictions of suicide terrorists that described their decision making as driven by either apparently nonrational influences (e.g., unbridled hatred, extreme pressure to conform) or seemingly rational influences (e.g., careful analysis of the situation and available options). Participants advocated

militaristic actions such as bombing in the former case and peaceful responses such as negotiation in the latter case.

It is worth noting that when dealing with a *truly biased* opponent, it may sometimes make sense to forgo cooperative efforts. Political leaders sometimes have argued that one “cannot negotiate with a madman.” To the extent that the biases of one’s opponents are extreme enough to prevent them from seeing any glimpse of reality, those biases could be considered a form of madness. However, we suggest that people may use this madman argument when they are dealing with individuals who are not madmen but who simply “just disagree” with them. Indeed, research shows that people exaggerate others’ biases. Although people are generally correct in assuming that others are not fully objective, they often are incorrect in their assumptions about the *extent* of the problem. People overestimate the degree to which self-interest has a biasing influence on others’ attitudes (Miller & Ratner, 1998) and assignments of responsibility (Kruger & Gilovich, 1999). They also overestimate the degree to which others’ social judgments are biased by correspondent inferences (van Boven, White, Kamada, & Gilovich, 2003) and the degree to which others’ political views are biased by ideology (Robinson et al., 1995).

The Present Research

We present a series of studies exploring the hypothesis that perceptions of bias play an important role in the path from disagreement to conflict. In Studies 1a and 1b, we aim to demonstrate that disagreement engenders perceptions of bias. In Study 1a, participants are exposed to a mock interview with a public figure regarding her position on affirmative action. We then measure the degree to which participants’ disagreement with the public figure predicts how much bias they impute to her. In Study 1b, we manipulate participants’ disagreement with this public figure by assigning them to a version of the mock interview in which she either expresses the same view as them or a dissonant view, and we then measure their perceptions of her bias. Study 2 tests the role of bias perception in mediating the path from disagreement to conflict. Participants are presented with the views of two fictitious students who vary in their disagreement with the participants on a campus issue. Participants then report both their perceptions of these students’ bias and their preference for using cooperative versus competitive approaches to deal with them.

In Studies 3a and 4a, we aim to directly manipulate bias perceptions and to test their impact on conflict-escalatory responding. Participants in Study 3a view the alleged positions of two fictitious students who disagree with them equally on the campus issue used in Study 2, but one appears to have arrived at that position from objective reasoning (e.g., a cost-benefit analysis) and the

other appears to have arrived at it based on bias (e.g., self-interest, emotionality). Participants then indicate their perceptions of the students’ bias and their preferred approaches (cooperative or competitive) for dealing with them, and they write responses to both the “biased” and “objective” student. A follow-up (Study 3b) aims to show that participants’ assumptions about the degree of bias shown by the “biased student” resemble their assumptions about how much bias a student who disagreed with their position would show (in the absence of any other information). In Study 4a, participants consider a U.S. senator who opposes their view on an issue they personally care about (e.g., abortion, Iraq war). They are presented with the fabricated psychological profile of that senator. Depending on experimental condition, that profile portrays him as either a biased or an objective politician. Participants then indicate their preference for cooperative versus competitive approaches for dealing with the senator. In a follow-up (Study 4b), we aim to clarify that these cooperative and competitive approaches differ in the extent to which they are likely to escalate conflict. Taken together, these studies aim to demonstrate a previously untested “bias-perception conflict spiral.”

STUDY 1A: DISAGREEMENT ABOUT AFFIRMATIVE ACTION

Participants were presented with the putatively moderate position of an elite university president on the issue of affirmative action. We predicted that the larger participants’ personal disagreement with her position, the more bias they would impute to her.

Method

Participants and design. Forty-eight Princeton University undergraduates (age range = 18-22; 25 women, 23 men) participated for course credit or pay. A correlational design was used to test whether participants’ disagreement with a target correlated with their perceptions of her bias.

Procedure and materials. Participants first completed a fabricated “Political Opinion Survey” for the sole purpose of allowing us to determine their position on affirmative action. To disguise this purpose, the survey asked them to report their position on 11 issues (affirmative action in higher education, troop surge for the war in Iraq, legalization of marijuana, etc.; 1 = *completely against*, 9 = *completely in favor*).

For an allegedly separate study, participants then read a fictitious article that appeared to be from the *Harvard Crimson* student newspaper. The article consisted of an

interview with that university's new president (preceded by an introduction to her). The first three interview questions were included to disguise our true purposes (e.g., "How have you enjoyed your time here at Harvard so far?"). The final question noted that now that the president was "a high-profile public figure," people would want to know her "position on many issues . . . from underage drinking, to grade inflation, to stem cell research." She then was asked her position on affirmative action, which she described as "moderate" and "somewhere in the middle" (see Appendix A).

After reading the article, participants indicated their perceptions of the university president's bias with respect to the issue of affirmative action. In particular, they were asked how much the president's position was influenced by eight factors, including four likely to produce a biased analysis of the issue— i.e., self-interest, political affiliation or ideology, her personal experiences as a White woman, a biased perspective on the issue—and four factors (all reverse coded) likely to produce an unbiased analysis— i.e., careful consideration of the facts, logical analysis of costs and benefits, evaluation of the available data on the issue, an objective perspective on the issue (1 = *no influence*, 7 = *a lot of influence*; Cronbach's $\alpha = .77$). Finally, participants were asked to indicate "how large of a disagreement" they had with the university president on affirmative action (1 = *no disagreement at all*, 7 = *extremely large disagreement*).

Results and Discussion

We predicted that the more participants disagreed with the university president about affirmative action, the more bias they would impute to her position on that issue. Participants' disagreement with the president was coded as the deviation of their position from her reported position (with her position coded as the midpoint of their scale, which ranged from *completely in favor* to *completely against*, as she had described her position as "in the middle," "moderate," and *not* "strongly for or against"). As predicted, the more participants' own position deviated from the president's, the more biased they perceived her to be, $r(46) = .42, p = .003$. We next examined the correlation between participants' perceived disagreement with the president and their perceptions of her bias, and found the same relationship, $r(46) = .31, p = .03$.

These results suggest that disagreement is associated with perceptions of bias. In this study, participants all rated the same target with the same position. Thus, when they viewed her as more versus less biased, we could be sure that these differences did not reflect anything about her dispositional bias or actual position.

Even though her personality and position did not change, participants viewed her as more biased when *their* position deviated from hers.

This study showed that participants' disagreement with a static target predicted how much bias they imputed to her. However, because these results are correlational (disagreement was not manipulated) it is possible that they reflect a tendency for people with extreme positions to impute more bias to others (perhaps because they themselves are more biased and thus assume others are too). To address this possibility, we next sought to experimentally manipulate participants' disagreement with a target by manipulating that target's alleged position.

STUDY 1B: MANIPULATING DISAGREEMENT

Participants again read an alleged interview with a university president who was asked her position on affirmative action. We predicted that participants would view her as more biased when her position was experimentally altered to differ from rather than resemble their own position.

Method

Participants and design. Fifty Princeton University undergraduates (23 women, 27 men) participated for course credit, money, or coupons for free ice cream. They were randomly assigned to either the same-position ($n = 26$) or large-disagreement ($n = 24$) condition.

Procedure and materials. These resembled Study 1a, except that participants received one of nine versions of the interview (depending on their own position and experimental condition), with each version differing only with respect to the university president's position on affirmative action. The nine versions were designed to represent each of the nine possible scale responses that participants could have reported on the issue (see Appendix A). To check the validity of our design of these different versions, we asked two coders (unaware of our hypotheses) to read each version and rate the president's position on affirmative action in each one (1 = *completely against*, 9 = *completely in favor*). They read all the statements (presented in a randomized order) before making their ratings, and they were told that they could use each scale point more than once or not at all, as they saw fit. For all nine versions, the coders agreed with each other and with our intended design (they both saw the statement designed to be a 1 on the scale as a 1, etc.).

Participants received a version of the interview in which the president expressed a position that either corresponded to their own position on the scale (same-position condition) or that was 4 points away from their position in the polar opposite direction (large-disagreement condition). For example, participants in the same-position condition who indicated that their position was a 6 on the 9-point scale received a version of the interview approximating a 6 position; if they were in the large-disagreement condition, they received a version approximating a 2. Participants in the large-disagreement condition who circled the scale midpoint of 5 randomly received either the interview approximating the 1 position ($n = 2$) or the 9 position ($n = 3$). After reading the interview, participants rated the university president's bias using the same measure as in Study 1a ($\alpha = .71$). As a manipulation check, they also indicated their disagreement with the president (1 = *no disagreement at all*, 7 = *extremely large disagreement*).

Results and Discussion

Disagreement (manipulation check). As expected, participants reported more disagreement with the president when her position was 4 points away from their own (large-disagreement condition; $M = 3.83$, $SD = 1.79$) than when her position resembled their own (same-position condition; $M = 2.00$, $SD = 0.85$), $F(1, 48) = 22.05$, $p < .0001$, $\eta^2 = .31$.

Bias perception. We predicted that participants would perceive the university president as more biased on the issue of affirmative action when they disagreed with her position rather than shared it. Consistent with this hypothesis, a one-way ANOVA revealed that participants in the large-disagreement condition viewed the president as more biased ($M = 3.86$, $SD = 0.73$) than did those in the same-position condition ($M = 3.20$, $SD = 0.88$), $F(1, 48) = 8.23$, $p = .006$, $\eta^2 = .15$.

Participants in this study varied in terms of whether they assessed a target who was portrayed as more versus less extreme with respect to the issue. This allowed us to explore whether it was disagreement with a target, or that target's extremity, that drove our results. We performed a regression analysis with target extremity (i.e., distance from the neutral midpoint), disagreement condition, and the relevant interaction term as predictors of bias perceptions. Consistent with our hypothesis about the role of disagreement in bias perception, a main effect of disagreement emerged ($B = .69$, $SE = .23$), $t(46) = 2.98$, $p = .004$. There were no effects of target extremity or of a Disagreement \times Extremity interaction, $ps > .22$.

Having found support in the forgoing studies for the hypothesis that people view those who disagree with them as biased, we next hoped to examine the full bias-perception conflict spiral by examining the path from disagreement, to bias perception, to conflictual responding.

STUDY 2: DISAGREEMENT AND A GRADING POLICY

Participants were asked their opinion about a possible new academic policy they were expected to oppose. As part of an alleged effort to understand how the issue would be viewed and debated, they also were presented with the views of two alleged students who disagreed with them on the issue to varying degrees. We predicted they would view the student with whom they disagreed more as being more biased and that they would in turn prefer more competitive and less cooperative ways of addressing that student.

Method

Participants and design. Forty-six Princeton University undergraduates (16 women, 30 men) participated for course credit. In a within-subjects experiment (with order counterbalanced), they were simultaneously presented with the two experimental conditions (small disagreement and large disagreement).

Procedure and materials. Participants were told that their university was considering a new grading policy that would "make all grades incontestable" and would "apply to all coursework as well as to final course grades." They were told that the university was gathering feedback from students before making a decision about the policy. They were then asked three questions concerning their position on the issue: "How satisfied are you with the current grading policy?" "How much change do you feel the policy needs?" and "How strongly do you feel about the issue?" (1 = *not at all*, 7 = *extremely*). They also were asked to write one to two sentences about what changes they felt the policy needed. These questions were included to maintain our cover story that we had asked the same questions of their (fictitious) peers whose responses they would be seeing.

Participants were told that in an effort to help the psychology department study how this issue might develop on campus, they would be shown the questionnaires of two other students and asked how they would respond to each. Because we expected our participants to support the existing policy and oppose the new policy, the

large-disagreement condition involved a student who indicated low satisfaction with the current policy and called for major change to it (2 and 6 on the respective 7-point scales), whereas the small-disagreement condition involved a student who indicated moderate satisfaction with the current policy and called for moderate change to it (4 on both scales). Both students reported feeling strongly about the issue (6 on the scale). In their open-ended responses, the large- versus small-disagreement students called for “complete” versus “some” changes to the current policy and advocated that the new policy “bar students from being allowed to contest their grades” versus that it put “moderate restrictions” on that ability.

Measures. Participants completed the same final questionnaire twice, once for each fictitious student. As a manipulation check, they were asked: “How similar or different do you feel this student’s position on the issue is compared to your own?” (1 = *completely different*, 7 = *exactly the same*). Next, they evaluated the student’s bias concerning the policy (“To what extent do you feel that this student’s position on the issue is a product of personal bias?” and “How objective do you think this student is in evaluating this issue?” [reverse coded]; $\alpha = .75$). They then assessed the likely *effectiveness* of various cooperative versus competitive approaches “for dealing with this student’s potential opposition to your point of view.” The cooperative approaches involved efforts to resolve things using cooperative means (i.e., having a calm discussion of both sides of the issue, offering a compelling explanation of your side of the issue, providing a rational explanation of the facts of the issue, changing their opinion on the issue), and the competitive approaches involved efforts to serve one’s own goals via competitive means (i.e., offering them an incentive [a bribe] to change their position, trying to get them not to express their original opinion, convincing them it is not worth going against the majority, expressing anger, sadness, or other emotions). To check that these approaches were best categorized into these two factors, we conducted principle components analysis with varimax rotation. The eigenvalues > 1 criterion revealed two factors explaining 65% of the variance. The first included our cooperative approaches (eigenvalue = 2.63, variance explained = 37%, respective loadings = .85, .83, .88, .64); the second included three of our four competitive approaches (eigenvalue = 1.94, variance explained = 28%, loadings = .81, .80, .64). One of the items expected to fall in the competitive set (i.e., offering a bribe) did not load significantly in it (it loaded at .35 and the critical value was .59; the critical value in a principle components analysis is double the critical value for an ordinary correlation; see Stevens, 1996) and was thus eliminated (including it did not alter the significance of the results). All items (except the manipulation check) were anchored at 1 (*not at all*) and 7 (*extremely*).

As a measure of participants’ *intentions* to respond cooperatively versus competitively, they were asked “how interested” they would be in taking various actions toward the student that were either cooperative (i.e., having a neutral party mediate your disagreement with the student, negotiating with the student to reach an agreement) or competitive (i.e., appealing to the administration to dismiss the student’s side of the issue, mounting broad student support against the student’s position). We again performed a varimax-rotated factor analysis to check that these actions fell into the predicted factors. As predicted, the eigenvalues > 1 criterion revealed two factors (accounting for 73% of the variance), one involving competitive actions (eigenvalue = 1.65, variance explained = 41%, loadings = .89, .86) and the other involving cooperative actions (eigenvalue = 1.29, variance explained = 32%, loadings = .79, .81).

Results and Discussion

Means and standard deviations are listed in Table 1.

Disagreement (manipulation check). As expected, participants disagreed more with the student with whom we intended for them to have a large disagreement than with the student with whom we intended for them to have a small disagreement, $F(1, 45) = 186.15$, $p < .0001$, $\eta^2 = .81$.

Bias perceptions. We expected that participants’ degree of disagreement with their adversaries would predict how much bias they imputed to them. According to a repeated measures ANOVA, participants perceived their large-disagreement peer as more biased than their small-disagreement peer, $F(1, 45) = 114.63$, $p < .0001$, $\eta^2 = .72$.

Participants generally were firmly opposed to the grading policy change ($M = 5.59$, $SD = 0.97$). We nonetheless looked to see whether there was an additional effect of the extent of their disagreement on their perceptions of bias. We found a marginal effect in the small-disagreement condition (i.e., the more participants disagreed with the fictitious student, the more bias they tended to impute), $F(1, 44) = 3.21$, $p = .08$, $\eta^2 = .07$, and no effect in the large-disagreement condition, $F(1, 44) = .34$, *ns*. Although this latter result may seem contrary to the findings of Study 1a (involving effects of individual-level differences in disagreement on perceptions of bias), that study employed an issue that was selected for its tendency to induce wide variance in participants’ views (from strong support to strong opposition) whereas the present study employed an issue that was selected to induce consistent opposition (thereby leading participants to uniformly disagree with the large-disagreement student).

Cooperation versus competition. We expected that participants’ ratings of the *effectiveness* of cooperation

TABLE 1: Means and Standard Deviations for Measures in Study 2 (Disagreement About a Grading Policy)

	Disagreement Condition	
	Small	Large
Disagreement (manipulation check)		
<i>M</i>	3.65	6.15
<i>SD</i>	1.37	0.94
Perceived bias of adversary		
<i>M</i>	2.96	5.04
<i>SD</i>	0.95	0.94
Perceived effectiveness of cooperating		
<i>M</i>	5.35	4.18
<i>SD</i>	0.85	1.39
Perceived effectiveness of competing		
<i>M</i>	2.96	2.51
<i>SD</i>	1.10	1.16
Intention to cooperate		
<i>M</i>	4.29	3.97
<i>SD</i>	1.47	1.43
Intention to compete		
<i>M</i>	2.13	3.37
<i>SD</i>	0.99	1.60

NOTE: All items were measured on 7-point scales. Disagreement scores represent reverse-scored responses to the item "How similar or different do you feel this student's position on the issue is compared to your own?" (1 = *completely different*, 7 = *exactly the same*).

versus competition would depend on their experimentally induced feelings of disagreement. Across conditions, participants were inclined toward cooperative over competitive approaches, $F(1, 45) = 155.98, p < .0001$. More relevant to our present concerns, the magnitude of this inclination varied by condition, according to a 2×2 repeated measures ANOVA (High vs. Low Disagreement \times Cooperative vs. Competitive Responses). Participants were less likely to endorse cooperation over competition when responding to the large-disagreement student than to the small-disagreement student, $F(1, 45) = 14.24, p < .0001, \eta^2 = .24$.

Participants' *intentions* for how they would respond to their student adversaries showed a similar pattern. Overall, they preferred cooperation to competition, $F(1, 45) = 41.85, p < .0001$. But again, their intentions differed depending on their level of disagreement. They were less inclined to cooperate rather than compete when considering the student with whom they had a large rather than a small disagreement, $F(1, 45) = 22.81, p < .0001, \eta^2 = .34$.

Mediating role of bias perception. We next examined whether perceptions of bias mediated the effect of disagreement on preferences for competitive (and conflict-escalating) action versus cooperative (and conflict-deescalating) action. Our statistical strategy for testing mediation followed that outlined by Judd, Kenny, and McClelland (2001) for testing mediation in within-subjects designs

(using difference scores). After showing previously that larger disagreement (our independent variable) led to both greater perceptions of bias (our mediator) and greater preferences for competitive versus cooperative responding (our dependent measures), we performed a regression predicting participants' inclination for competition versus cooperation from (a) the difference in their bias perceptions between the two disagreement conditions and (b) the mean-centered sum of their bias perceptions across the two conditions. The model revealed that participants' perceptions of bias mediated the effect of their disagreement on their preferences for cooperation vs. competition ($B = .30, SE = .14, t(43) = 2.14, p = .04$). Moreover, there was no evidence that average levels of bias perception (i.e., based on the sum scores) moderated that relationship ($B = .01, SE = .14, t(43) = .09, ns$). Finally, the predicted mediation was "full" according to the test advocated by Judd et al. That is, the intercept in the preceding regression model was not significant ($B = .09, SE = .35, t(43) = .25, ns$), indicating that there was not a significant amount a variation left to account for in explaining the effect of experimental condition on cooperation versus competition (and that bias perceptions thus fully mediated the effect).

We also conducted these analyses for participants' *intentions* to act cooperatively versus competitively and obtained similar results. Regression analysis using the strategy advocated by Judd et al. (2001) revealed that bias perceptions mediated the effect of disagreement size on intentions ($B = .47, SE = .24, t(43) = 1.94, p = .06$, and there was again no evidence that average levels of bias perception moderated the effect ($B = .23, SE = .24, t(34) = .98, ns$). The intercept in the model was not significant ($B = .58, SE = .24, t(43) = .64, ns$), indicating that there was full mediation.

Conclusions. When participants encountered an adversary with whom they had a large rather than a small disagreement, they were more likely to advocate and to intend to use conflictual responses. Importantly, this effect of disagreement was mediated by the fact that participants viewed those with whom they had a large disagreement as more biased.

Our evidence for the effect of bias perceptions on conflictual versus cooperative responding in this experiment is mediational. To clearly demonstrate this effect, it would be best to manipulate bias perceptions and test for their effects (e.g., Spencer, Zanna, & Fong, 2005; Word, Zanna, & Cooper, 1974). We aimed to do that next.

STUDY 3A: BIAS AND A GRADING POLICY

Participants again encountered our cover story about a new grading policy. As part of our ostensible effort to understand how this issue might develop on campus, they were asked to respond to two students who disagreed

with them. One of those students' views appeared rooted in objectivity, the other in bias. We predicted that participants would advocate more competitive responses to the apparently biased adversary and would write a more aggressive and conflictual response to that adversary. We also expected to observe signs of a bias-perception conflict spiral whereby participants' responses to an adversary they saw as biased would in turn lead them to be perceived as more biased (and less inviting of amicable responding).

Method

Participants and design. Fifty-two Princeton University undergraduates (38 women, 14 men) participated for course credit. In a within-subjects experiment (with order counterbalanced), they were simultaneously presented with the two experimental conditions (biased opponent and objective opponent).

Procedure and materials. Participants were provided with our cover story about the proposed grading policy (see Study 2). They were asked to write a paragraph stating their position on it, by first circling either the word *agree* or *disagree* in a sentence that was provided at the start of their statement ("I agree/disagree with the idea of changing the grading policy so that students can no longer contest their grades with professors and AIs [assistant instructors]"). Next, they rated how much their position had been influenced by various factors (modeled after Study 1a) reflecting bias or its absence.

Participants were then told that they would have the opportunity to read and respond to the statements of two students in the study who had taken the position opposite theirs. Because these fabricated statements supported the policy, the responses of 6 participants who also supported it were excluded before data analysis (the remaining 46 participants opposed the policy). The fabricated statements were designed to be as similar to each other as possible except for the apparent influence on their writers of objective versus biasing concerns (see Appendix B). To mask this similarity, one of the two statements that each participant received was rearranged with respect to the order of the arguments in it.

Measures. Participants completed two questionnaires, one for each alleged student. As a manipulation check on perceptions of bias, they rated how much each student's position had been influenced by the eight factors that they had assessed for themselves ($\alpha = .89$). They also indicated their perceptions of the effectiveness of various cooperative and competitive responses (see Study 2). To ensure that these responses fell into the predicted subscales for cooperativeness versus competitiveness, we

TABLE 2: Means and Standard Deviations for Measures in Study 3a (Experimentally Manipulated Bias and a Grading Policy)

	Bias Condition	
	Objective Adversary	Biased Adversary
Perceived bias of adversary		
M	3.24	5.77
SD	0.85	0.53
Perceived effectiveness of cooperating		
M	5.51	4.63
SD	0.78	1.13
Perceived effectiveness of competing		
M	2.56	3.15
SD	0.98	1.20
Coders' rating of participant's aggression toward adversary		
M	2.29	2.82
SD	0.71	0.68
Coders' rating of participant's objectivity (vs. bias) in responding to adversary		
M	3.57	3.13
SD	0.61	0.61
Coders' rating of participant's tendency to invite an amicable response		
M	3.52	3.15
SD	0.56	0.64

NOTE: Perception questions were measured on 7-point scales. Coders' ratings were provided on 5-point scales.

performed principle components analysis (with varimax rotation). Using the eigenvalues > 1 criterion, the two predicted factors emerged, explaining 57% of the total variance. The first contained the four cooperative strategies (eigenvalue = 2.38, variance explained = 30%, loadings $> .72$); the second contained the four competitive strategies (eigenvalue = 2.19, variance explained = 27%, loadings $> .65$).

A separate dependent measure involved participants' written responses to the two students. Three research assistants (uninformed of hypotheses) coded these responses for aggressiveness (1 = *not at all aggressive*, 5 = *extremely*), objectivity/bias (1 = *writer seems mostly biased*, 5 = *writer seems mostly objective*), and potential for amicable resolution (1 = *not likely conflict with this person could be amicably resolved*, 5 = *extremely likely*). Interrater reliabilities were calculated using intraclass correlations (.78, .66, and .74, respectively).

Results and Discussion

Means and standard deviations are listed in Table 2.

Bias perception (manipulation check). As expected, according to a repeated measures ANOVA, participants imputed more bias to the student whose statement was designed to appear biased than to the student whose

statement was designed to appear objective, $F(1, 45) = 241.49, p < .0001, \eta^2 = .84$.

Cooperation versus competition. We next examined the prediction that participants' perceptions of the effectiveness of cooperation versus competition would depend on whether they perceived their adversary as biased versus objective. In both conditions, participants advocated cooperation over competition, $F(1, 89) = 143.19, p < .0001$. More relevant to our present hypothesis, however, the magnitude of this preference differed depending on whether participants were judging an opponent they viewed as biased versus objective. According to a 2×2 repeated measures ANOVA (Biased vs. Objective Opponent \times Cooperative vs. Competitive Responses), participants were less likely to endorse cooperation over competition when considering an opponent whom they thought was biased than one whom they thought was objective $F(1, 45) = 41.82, p < .0001, \eta^2 = .49$.

Mediation. We next sought to test whether participants' perceptions of their adversaries' bias mediated the effect of experimental condition on cooperative versus competitive responding. We again used Judd et al.'s (2001) strategy for mediational analysis in within-subjects designs. Having established previously that our independent variable predicted both bias perceptions and preferences for competitive (vs. cooperative) responding, we examined the regression model predicting participants' preference for competition versus cooperation from (a) the difference in participants' perceptions of bias between conditions and (b) the mean-centered sum of their bias perceptions across conditions. The model revealed that bias perceptions mediated the effect of condition on preference for competing versus cooperating ($B = .57, SE = .22, t(42) = 2.56, p = .01$, and there was no evidence that average bias perceptions moderated the effect ($B = .27, SE = .27, t(42) = .98, ns$). The intercept in the model was not significant ($B = .04, SE = .60, t(42) = .07, ns$, indicating that there was full mediation (i.e., that there was no variance left to account for beyond that explained by our mediator).

Written responses to opponents. We next examined whether participants' written responses to their opponents differed depending on whether they viewed those opponents as biased versus objective. As predicted, participants responded more aggressively when they believed they were responding to a biased opponent versus an objective opponent, $F(1, 45) = 20.63, p < .0001, \eta^2 = .31$. Also, their responses to an apparently biased (vs. objective) opponent led *themselves* to appear more biased, $F(1, 45) = 12.81, p = .0008, \eta^2 = .23$. Finally, when they addressed an apparently biased opponent,

participants elicited a stronger impression that *they* could not be effectively dealt with in an amicable way, $F(1, 45) = 14.10, p = .0005, \eta^2 = .24$.

People tend to see those who disagree with them as biased. In this experiment, people's tendency to perceive an adversary as biased rather than objective made them more likely to prefer competitive versus cooperative approaches to that adversary. Moreover, when participants responded to an opponent they viewed as biased, they themselves appeared more biased and aggressive, and their responses engendered less optimism for an amicable resolution.

In this study, we manipulated bias perceptions in a disagreement situation so that we could experimentally test whether those perceptions engendered more conflictual responding. The results of Studies 1a and 1b and Study 2 suggest that people will impute bias to an opponent in the absence of such an experimental manipulation when that opponent disagrees with them. To obtain further assurance that participants in Study 3a would have "naturally" (i.e., in the absence of any experimental manipulation) seen their opponent as biased, we conducted a follow-up study.

STUDY 3B: BASELINE PERCEPTIONS

Participants read about a student who opposed their view on the grading policy issue from Study 3a, and they assessed the bias of that student. Depending on experimental condition, participants either received information suggesting that their opponent was biased or objective with respect to the issue, or they received no information about that.

Method

Participants and design. Fifty-five Princeton University undergraduates (25 women, 30 men) participated as volunteers. They were randomly assigned to either a biased-information ($n = 19$), objectivity-information ($n = 18$), or no-information ($n = 18$) condition in a between-subjects design.

Procedure and materials. The procedure resembled that of Study 3a except that each participant was exposed to only one opponent, and participants received their materials in a single packet. Those materials began by explaining our alleged interest (i.e., in a potential school grading policy that would make all grades incontestable). Participants were then asked to indicate their position on that policy by circling the word *agree* or *disagree* in the sentence: "I agree/disagree with the idea of changing the grading policy so that students can no

longer contest their grades with professors and AIs" (see Study 3a). Participants were informed that the school was gathering feedback about the potential policy change and about how it might play out among students, and that for that purpose a photocopy of a random student's response was attached to the participant's survey. The content of this fictitious response depended on participants' experimental condition. In the objectivity- and bias-information conditions, participants were presented with the objective or biased statements from Study 3a. In the no-information condition, participants only saw the first sentence of those statements (i.e., the same sentence they had completed themselves), which showed that their opponent circled the word *agree* regarding the new grading policy. Finally, participants rated their opponent's bias using the same measure as in Study 3a ($\alpha = .69$).

Results and Discussion

Significant differences emerged among the conditions, $F(2, 52) = 9.19, p = .0004$. As expected, perceptions of bias in the no-information condition ($M = 4.63, SD = 0.86$) exceeded those in the objectivity-information condition ($M = 3.80, SD = 0.84$), $F(1, 35) = 8.77, p = .006, \eta^2 = .20$, and resembled those in the bias-information condition ($M = 4.97, SD = 0.87$), $F(1, 34) = 1.41, ns$. Consistent with the results of our prior studies, we thus found that participants naturally perceived a peer as biased when that peer's position diverged from their own.

In Study 3a, our manipulation of bias perceptions involved the arguments that participants' opponents provided for their position. Thus, those opponents differed in whether they demonstrated a tendency toward biased reasoning, but they also differed in the precise arguments they offered (e.g., the "biased" adversary argued from self-interest and emotions, whereas the "objective" adversary argued from facts about the policy). This manipulation has good external validity in that people's exposure to adversaries in conflict often involves offering arguments for their position. However, it does not allow us to separate our manipulation of bias from the adversaries' stated positions on the issue of concern. Study 4a attempts to do that by manipulating bias as a dispositional trait rather than something linked to the issue of concern.

STUDY 4A: BIAS AND SENATORS

Participants offered their position on a policy issue that they cared about and were shown the fake psychological profile of a U.S. senator who took the opposite position. That profile depicted the senator as relatively

susceptible to judgmental bias or as relatively objective. We predicted that participants considering the "biased" senator would view him as more biased with respect to the policy issue at hand and would in turn prefer more competitive (vs. cooperative) approaches for dealing with his opposition.

Method

Participants and design. Seventy-three Princeton University undergraduates (37 women, 35 men, 1 unknown) participated for course credit. They were randomly assigned to either the biased-senator ($n = 37$) or unbiased-senator ($n = 36$) condition in a between-subjects design.

Procedure and materials. Participants were asked which of five policy issues (e.g., abortion, affirmative action, Iraq War) was most important to them. For that issue, they indicated their position (pro or con) and how strongly they felt about the issue (1 = *not at all*, 7 = *extremely*).

Participants were then told that they would be given information collected in the preceding year by a "team of clinical psychologists in Washington, D.C., as part of an American Psychological Association task force on psychological factors in the legislative process." They were told that the psychologists "watched hundreds of hours of Congressional debates" and "observed and coded each senator's behavior on a number of different dimensions in order to assess their psychological tendencies, personalities, and interaction styles."

Participants were told that they would be shown the psychological profile of one senator from that study and that this senator was selected for them because he was known for taking a strong stance (opposite to the participant's) on the participant's chosen issue. Thus, if a participant felt strongest about abortion and was pro-choice, she would be told that the senator "is known for taking a *strong pro-life* position." The psychological profile described seven characteristics intended to convey the senator's bias/objectivity: Tends to form opinions based on [emotions/logical analysis] rather than [logical analysis/emotion]; [Gives/Does not give] more consideration to the ideas of people who are physically attractive and/or socially skilled; [Uses/Does not use] self-interest as a grounds for accepting or rejecting new ideas; [Is not/Is] equally likely to accept persuasive arguments that conflict with his side as to accept ones that favor his side; [Makes judgments/Avoids making judgments] about the greater good that are based on personal experience and/or anecdotal evidence; [Is/Is not] influenced by the popularity of a position in determining

whether to adopt it; [Is not/Is] able to evaluate issues from an objective perspective. Both profiles had five filler traits to disguise our purposes (e.g., Uses hand gestures and body language to emphasize points; Displays a mix of introverted and extroverted personality styles). Apart from the information in this profile, participants did not learn anything else about the senator or his position on the issue.

Participants were instructed to read the profile and form an impression of the senator. They were then asked to think about “going to Capitol Hill and arguing for your side of the issue” with the senator “representing the other side.”

Measures. Participants first were asked what strategies they thought would be most *effective* for counteracting the senator’s opposition if they had a personal encounter with him. The strategies were modified for this context from Studies 2 and 3a to again assess preferences to cooperate (e.g., engage the senator in a calm discussion of both sides of the issue) versus compete (e.g., express anger to sway the senator from taking action). Using principle components analysis (with varimax rotation), these strategies again fell into the predicted factors. The eigenvalues > 1 criterion revealed two factors accounting for 75% of the variance. The first (eigenvalue = 3.34, variance explained = 42%) contained the competitive approaches (loadings = .81, .75, .87, .79), and the second (eigenvalue = 2.63, variance explained = 33%) contained the cooperative approaches (loadings = .74, .70, .74, .88). Next, participants were asked how they *would act* toward the senator if they were in a public debate by rating various options that were cooperative (i.e., cede some points to the senator but emphasize the superiority of your position, provide calm counterexamples, listen attentively to his arguments and respond to each one) versus competitive (i.e., attack the senator’s credibility as a politician or public figure, ridicule the senator and try to prevent others from taking his ideas seriously, filibuster so that the senator never has a chance to speak). Varimax-rotated factor analysis tested whether these items fell into the predicted factors. In this case, the eigenvalues > 1 criterion suggested a one-factor structure (accounting for 52% of the variance). That factor (eigenvalue = 3.11, other eigenvalues < .85) showed all of the a priori competitive items loading positively (.69, .73, .78) and all of the a priori cooperative items loading negatively (–.60, –.77, –.74). Thus, all six items were placed in a single measure of intention to compete more than cooperate (with the cooperate items reverse scored).

Participants also assessed the senator’s bias with respect to the policy issue (“To what extent do you think that the senator’s reasoning about this issue is

TABLE 3: Means and Standard Deviations for Measures in Study 4a (Experimentally Manipulated Bias of a U.S. Senator)

	Bias Condition	
	Objective Adversary	Biased Adversary
Perceived bias of adversary		
M	3.22	5.64
SD	1.27	0.91
Perceived effectiveness of cooperating		
M	5.27	2.87
SD	1.01	1.02
Perceived effectiveness of competing		
M	1.75	3.82
SD	0.67	1.14
Intention to compete more than cooperate		
M	1.94	3.31
SD	0.59	1.02

NOTE: All items were measured on 7-point scales.

influenced by bias?” and “To what extent do you think that the senator’s position on this issue is rooted in an objective analysis of the issue?” [reverse coded]; $\alpha = .85$) on 7-point scales (1 = *not at all*, 7 = *extremely*).

Results and Discussion

Means and standard deviations are listed in Table 3.

Bias perception. According to a one-way ANOVA, participants imputed more bias to the position of the “biased” senator than the “objective” senator, $F(1, 71) = 87.66, p < .0001, \eta^2 = .55$.

Cooperation versus competition. Participants’ ratings of the effectiveness of cooperation versus competition for dealing with the senator’s opposition depended on their perceptions of his bias. Although there was a main effect whereby they preferred cooperation over competition ($M = 4.06, SD = 1.70$ vs. $M = 2.80, SD = 1.40$), $F(1, 71) = 57.45, p < .0001$, this effect reversed among participants who contemplated a biased adversary. Thus, according to a two-way mixed-model ANOVA (Objective vs. Biased Target \times Cooperative vs. Competitive Responses), participants thought cooperation would be more effective than competition for dealing with the “objective” senator but that the reverse would be true for dealing with the “biased” senator, $F(1, 71) = 174.46, p < .0001, \eta^2 = .71$.

When it came to what strategies participants said they would actually use, they again generally preferred cooperation to competition ($M = 5.25, SD = 1.17$ vs.

$M = 2.52$, $SD = 1.22$), $F(1, 71) = 199.00$, $p < .0001$. More relevant to our present concerns, they were more likely to lean toward competition (e.g., attacking the senator's credibility) over cooperation (e.g., listening attentively) when they imagined dealing with a senator who was biased rather than objective, $F(1, 71) = 49.00$, $p < .0001$, $\eta^2 = .41$.

Mediation. We next tested whether participants' perceptions of their adversary's bias mediated their inclination to compete versus cooperate. Following the procedure advocated by Kenny, Kashy, and Bolger (1998), we first established that experimental condition (biased vs. unbiased senator) predicted both perceptions of bias (our mediating variable; $B = -2.41$, $SE = .26$), $t(71) = 9.36$, $p < .0001$, and perceptions of the effectiveness of cooperation vs. competition (our dependent measure; $B = 4.47$, $SE = .34$), $t(71) = 13.21$, $p < .0001$. Next, we found that perceptions of bias predicted our dependent measure (calculated as a difference score of preference for competition over cooperation), even after controlling for experimental condition ($B = -.34$, $SE = .15$), $t(70) = 2.23$, $p = .03$. The Sobel test revealed that perceptions of bias partially mediated the effect of condition on the perceived effectiveness of competition vs. cooperation, $z = 2.20$, $p = .03$. Similar results emerged for intentions to compete more than cooperate, though the results fell short of significance (in order reported previously, $B = -2.41$, $p < .0001$; $B = -1.37$, $p < .0001$; $B = 0.14$, $p = .11$; Sobel test $z = 1.60$, $p = .11$).

The results of Study 4a offer further evidence for the effect of perceived bias in a disagreement context (in this case, the context of political disagreement) on advocacy of competitive versus cooperative responses. Perceptions of bias were manipulated independently of the issue in question (via claims about an adversary's personality). The effects of this bias manipulation on competitive versus cooperative responding were mediated by participants' perceptions about their adversaries' bias with respect to evaluating the issue at hand.

In the forgoing experiments, we have assumed that the competitive versus cooperative approaches presented to participants differ in the extent to which they are conflict escalatory. A follow-up to Study 4a aimed to explore this assumption.

STUDY 4B: COMPETING VERSUS COOPERATING AND CONFLICT ESCALATION

Participants considered an opponent who opted for the approaches we deemed competitive and escalatory (vs. cooperative and deescalatory) in Study 4a. We predicted that when considering the "competitive and escalatory"

opponent, participants would feel more inclined to respond aggressively, view the conflict as larger, have less hope for peaceful resolution, and view *their* adversary as more biased.

Method

Participants and design. Twenty-four Princeton University undergraduates (15 women, 9 men) volunteered to participate. They were presented with two experimental conditions (competitive responses vs. cooperative responses), counterbalanced for order in a within-subjects design.

Procedure and materials. Participants were presented with a survey where they were first asked to think of a political issue that was important to them and to imagine they were having a personal encounter with someone who held "the opposite position to yours." They were told to imagine that this opponent approached them with either the cooperative strategies from Study 4a (e.g., engaging you in a calm discussion of both sides of the issue) or the competitive strategies (e.g., expressing anger to sway you from taking action). They then were asked a series of questions about their opponent and the conflict. These were: "Given who you are dealing with, would it be more effective to respond with a cooperative approach (e.g., looking for compromises) or an aggressive approach (e.g., battling it out)?" (1 = *cooperative*, 7 = *aggressive*); "How would you describe your conflict with this person?" (1 = *extremely small*, 7 = *extremely large*); "How hopeful are you that you could peacefully resolve your conflict with this person?" (1 = *not at all*, 7 = *extremely*); and "Do you think this person is likely to be objective, or biased, in their thinking about the issue?" (1 = *completely objective*, 7 = *completely biased*).

Finally, participants were asked to imagine a different opponent who used "very different strategies," and they were shown the other set of strategies from Study 4a and asked to respond to the same questions about this opponent.

Results and Discussion

Participants reported more inclination to respond with aggression when considering an opponent who used the competitive ($M = 4.83$, $SD = 1.63$) rather than cooperative ($M = 2.83$, $SD = 1.55$) approaches from Study 4a, $F(1, 23) = 24.00$, $p < .0001$, $\eta^2 = .51$. This suggests that those competitive approaches are indeed more conflict escalatory. Participants also viewed the situation as involving a larger conflict when contemplating an adversary who used the competitive versus cooperative

approaches ($M = 5.17$, $SD = 1.43$ vs. $M = 3.13$, $SD = 1.57$), $F(1, 23) = 39.03$, $p < .0001$, $\eta^2 = .63$, and they were less hopeful that it could be peacefully resolved when considering a target who used the competitive versus cooperative approaches ($M = 2.25$, $SD = 1.33$ vs. $M = 4.67$, $SD = 1.69$), $F(1, 23) = 42.51$, $p < .0001$, $\eta^2 = .65$. They also viewed an opponent who acted competitively as more biased than one who acted cooperatively ($M = 6.21$, $SD = 0.78$ vs. $M = 3.33$, $SD = 1.37$), $F(1, 23) = 75.26$, $p < .0001$, $\eta^2 = .77$, thereby suggesting that such approaches would indeed further the bias-perception conflict spiral.

The results of this follow-up study show that the approaches preferred by participants in Study 4a for dealing with a biased versus objective opponent are likely to be conflict escalating. In particular, those approaches led adversaries to be inclined to respond to them aggressively, to show less hope for peaceful resolution, and to impute more bias to them. The results of Study 4a and of this follow-up provide evidence for our overall story. These results showed that participants' perceptions of their adversaries as susceptible to judgmental bias prompted them to take a more conflictual approach toward those adversaries. That approach, in turn, led adversaries to prefer a more aggressive and battle-like response, and to view their opponent as biased, thus encouraging the conflict spiral to repeat itself.

GENERAL DISCUSSION

This research suggests that perceptions of bias play an important role in the oft-tread path from disagreement to conflict. It suggests that a common perceptual tendency (involving our inclination to impute bias to those who see things differently from us) leads us to take competitive approaches toward those with whom we disagree—approaches that escalate conflict rather than encourage its resolution. Those approaches in turn prompt others to see us as biased, thereby prompting them to respond in conflictual ways, as the bias-perception conflict spiral continues. Why can't we all just get along? This research suggests that one reason is that we see those who disagree with us as biased and incapable of objective reasoning.

Past research has illustrated people's tendency to overestimate the extent to which others are biased (e.g., Kruger & Gilovich, 1999; Miller & Ratner, 1998; Robinson et al., 1995; van Boven et al., 2003). The present research suggests that we pay a heavy price for those perceptions. Studies 1a and 1b show that people view those with whom they disagree as biased. Study 1a shows that those bias perceptions arise even when people are asked to judge a moderate

target—and when it is their *own* extremity that causes them to disagree with that target—and Study 1b shows that those bias perceptions are independent of the extremity of the target. Study 2 provides further evidence for the effect of disagreement on bias perception and shows that bias perception can fully mediate the path from disagreement to competitive (or conflict-escalatory) responding. Finally, in Study 3a, and in the pair of Studies 4a and 4b, we manipulate the mediator and show that experimental manipulations of bias perception induce more conflictual responding and that such responding causes respondents *themselves* to be viewed as more biased and less worthy of cooperative efforts. Taken together, this research builds from and moves beyond previous work that has suggested that disagreement induces perceptions of bias by painting a more complete picture of the role of bias perceptions in the development and escalation of conflict. By exploring the ways that bias perceptions can sow the path from mere disagreement to conflict, this work supports a bias-perception conflict spiral model of conflict escalation.

Manipulating Bias Perception and Disagreement

Because we manipulated perceptions of bias in several of our experiments that involved competitive responding, one might wonder whether our participants were "rational" in their tendency to respond more competitively to more biased adversaries. To the extent that adversaries differ in their ability to view things objectively, it arguably might make sense to respond to objective adversaries with approaches aimed at reaching fair agreements and compromises, and to respond to biased adversaries with approaches not aimed at these goals. However, it is important to recall that our research indicates that assumptions of bias are likely to arise naturally in disagreement contexts. It is the tendency to act aggressively rather than cooperatively based on one's *assumptions* of bias—assumptions that derive from the simple fact that one's opponent takes a different view from one's own—that does not make sense. Indeed, in Study 1a, we found that participants viewed an allegedly moderate person as more biased the more *they* disagreed with her. What is important about this study is that all participants perceived the same target with the same position; thus, their imputations of bias did not reflect a rational or accurate analysis of that target. Similarly, the conflict-escalatory responses that participants showed in Study 2 were mediated by their perceptions of their adversaries' bias, but those perceptions were aroused by an experimental manipulation of *disagreement* (rather than of bias).

Implications for Conflict

In our experiments, participants performed a quick assessment of their adversaries to determine how biased they were and then, based on that assessment, chose to respond with a competitive and conflict-escalating approach or a cooperative and deescalating approach. We believe that people perform these same quick assessments, with similar consequences, in everyday life when they are faced with people who oppose or disagree with them.

These findings provide insight into the question of why people who “just disagree” cannot just “leave it alone” (or, better yet, cooperate). We suggest that the more people disagree with each other (or even the more they *assume* they disagree; e.g., Ross & Ward, 1995), the more bias they will perceive in each other and, consequently, the more conflictual action they will take. This pattern is relevant to conflicts ranging in scale from quarreling marital partners to feuding national leaders. When husbands and wives disagree about who puts more work into the relationship and who takes whom for granted, they are likely to view the other as incapable of considering the situation objectively, and they may therefore come to view options that involve cooperative problem solving (e.g., couples’ therapy) as hopeless—and throwing dishes or filing for divorce as the only options. In disputes between leaders of nations, over issues such as whose country should control which land, each side may take the disagreement to be a sign of the other’s inability to be objective and may therefore respond by dropping bombs rather than seeking a negotiated resolution.

The results of this research suggest possible interventions for preventing disagreement from turning into conflict and for preventing conflict from escalating into worse conflict. An optimistic take on these results suggests that we should seek to develop interventions that can lead people to perceive their adversaries as capable of objectivity. Such interventions could help break the conflict cycle. An important question involves what those interventions might be. Because people’s imputations of bias to their opponents often reflect people’s confidence in their *own* objectivity, interventions aimed at inducing people to recognize that their own positions have been influenced by unrealistic expectations, personal experience, emotion, a need to protect self-esteem, and so on, might induce them to take a more charitable view of their opponents. Also beneficial could be direct efforts to make people see their opponents as less biased than they imagined them to be. Unfortunately, interventions designed to do that by increasing perspective taking may backfire if they inadvertently lead people to ponder the biases that their adversary’s “perspective” likely involves (e.g., Epley, Caruso, & Bazerman, 2006).

More promising might be interventions increasing epistemic motivation or efforts to achieve an accurate understanding of the world (e.g., De Dreu, Beersma, Stroebe, & Euwema, 2006). Given the seemingly automatic tendency for people to assume their own objectivity and to impute bias to those who disagree, the path to producing effective interventions is likely to be difficult. However, given that conflict produces so much of human suffering and poses such a threat to the fabric that binds our individual relationships and our collective societies, that difficult path is worth taking.

APPENDIX A STATEMENTS ABOUT AFFIRMATIVE ACTION

Study 1a (Moderate Position)

I think the issue of affirmative action is an extremely important one. It’s also a complicated issue, and I think that there are equally good arguments on both sides. On the one hand, the goal of making up for past wrongs and correcting current ones is something that we must pursue with energy. On the other hand, it’s important that we pursue these goals not only with energy, but also with care and even a measure of caution. But you asked me my position on the issue. At the end of the day, I guess that I have to say my position is a moderate one. I’m somewhere in the middle when it comes to affirmative action, and I find it difficult to understand how anyone could be strongly for or against it.

Study 1b (Varied Positions)

Against Affirmative Action (Positions 1-4):

I think the issue of affirmative action is an extremely important one. It is crucial that we pursue the goals associated with affirmative action, such as providing fair opportunities and righting past wrongs, with **care and caution**. Affirmative action **does not do a good job** addressing these goals and it [*is clearly* (1), *is most likely* (2), *is probably* (3), *might be* (4)] the **wrong** approach. But you asked me my position on the issue. I am [*extremely* (1), *very much* (2), *moderately* (3), *slightly* (4)] **against** the policies of affirmative action. I [*always* (1), *sometimes* (4)] find it [*extremely* (1), *very* (2), *somewhat* (3), *a little* (4)] difficult to understand how [*anyone* (1, 2), *some people* (3, 4)] could be [*at all* (1)] in **support** of affirmative action.

Neither for nor against Affirmative Action (Position 5):
(See Study 1a.)

In Favor of Affirmative Action (Positions 6-9):

I think the issue of affirmative action is an extremely important one. It is crucial that we pursue the goals

associated with affirmative action, such as providing fair opportunities and righting past wrongs, with **energy and vigor**. Affirmative action **does a good job** addressing those goals and it [*is clearly* (9), *is most likely* (8), *is probably* (7), *might be* (6)] the **right** approach. But you asked me my position on the issue. I am [*extremely* (9), *very much* (8), *moderately* (7), *slightly* (6)] **in favor** of the policies of affirmative action. I [*always* (9), *sometimes* (6)] find it [*extremely* (9), *very* (8), *somewhat* (7), *a little* (6)] difficult to understand how [*anyone* (9, 8), *some people* (7, 6)] could be [*at all* (9)] **opposed** to affirmative action.

APPENDIX B STATEMENTS ABOUT A PROPOSED GRADING POLICY (STUDY 3A)

“Objective” Statement:

I agree with the idea of changing the grading policy so that students can no longer contest their grades with professors and AIs. All of the AIs and professors at Princeton are required to attend University training sessions, before they begin teaching, on how to evaluate and assign grades accurately and fairly. Also, although I have not seen the data, I would hypothesize that a limited number of students are repeatedly the ones who seek grade changes. Thus, the policy would have a low cost to the student body overall while having significant benefits to the faculty, who are burdened by these requests. I also think that there must not be a problem with grades at Princeton being too low, since the University recently instituted a policy to curb grade inflation. One last point: I support this policy change even though it might hurt me (since it is conceivable that at some point I might receive an incorrect grade). My overall conclusion is to think that this is a smart policy.

“Biased” Statement:

I agree with the idea of changing the grading policy so that students can no longer contest their grades with professors and AIs. All of the professors and AIs that I've had were really nice people and I don't feel that they would give anyone a grade lower than that person deserved. Also, it makes me angry when I hear other students whining and complaining about their grades, especially because it seems like it's always the same few people. I'd be happy to see that these students can't contest their grades anymore. Also, I personally have never gotten a grade that seemed too low, so it seems like grading mistakes are not a real problem at Princeton. One last point: I'm happy about the policy change because it might actually help me by stopping other students from getting their grades raised when they probably don't deserve it, which really hurts the curve. My personal bias is to feel that this is a nice policy.

NOTE: AIs = assistant instructors.

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