

# Categorization and Communication in the Face of Prejudice: When Describing Perceptions Changes What Is Perceived

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In the face of prejudice against an ingroup, common ground for communication exists when people use similar social categories to understand the situation. Three studies tested the hypothesis that describing perceptions of prejudice can fundamentally change those perceptions because communicators account for the common ground in line with conversational norms. When women (Study 1), African Americans (Study 2), and Americans (Study 3) simply thought about suspected prejudice against their ingroup, categorization guided their perceptions: Participants assimilated their views of the prejudiced event toward the perceptions of ingroup members but contrasted away from the perceptions of outgroup members. Conversely, when participants described their perceptions, they contrasted away from the given category information and actually arrived at the opposite perceptions as those who merely thought about the prejudiced event. Study 3 identified an important qualification of these effects by showing that they were obtained only when participants could assume their audience was familiar with the common ground. Implications are discussed for understanding the role of communication in facilitating and inhibiting collective action about prejudice.

*Keywords:* social influence, assimilation and contrast, Internet media, conspiracy theories, social movements

Throughout much of political history, a small minority of elites possessed the means of distributing news and analyzing current events for the masses (Innis, 1950). Today, with a blog, "tweet," video post, or simple comment, the masses can transmit their own views about current events into the public sphere (Kahn & Kellner, 2004; Langman, 2005; Mosca, 2008). This change means that not only are people able to communicate their views on a mass scale, they are also simultaneously exposed to the communications of similar others. For example, ambiguously racist events, such as the arrest of Harvard Professor Henry Louis Gates and President Barack Obama's subsequent criticism of the police's behavior in that incident, circulate through the "blogosphere" with almost instantaneous opinions and commentary (see Daniels, 2010; Nakamura, 2008). In the present political climate, in which polarization and group-based conflict are pervasive, one important question is whether such communication can change the way people perceive and experience group-based prejudice.

Social psychology research informs both sides of the communication equation. It has examined how people's perceptions of prejudice can be shaped by the communications of those around

them (Blanchard, Crandall, Brigham, & Vaughn, 1994; Blanchard, Lily, & Vaughn, 1991; Crandall, Eshleman, & O'Brien, 2002; Greenberg & Pyszczynski, 1985), and it has examined how the act of communication can change the communicator's attitudes and perceptions (see Holtgraves, 2010, for a review). But very little research has sought to understand the interface between complex prejudice judgments, on one hand, and the nature and consequences of communication, on the other. Focusing on how people experience prejudice directed against an ingroup, we propose that prejudice perceptions and communications are linked because perceivers engage in social categorization processes that provide a common ground for communication. The present research further tests the hypothesis that the simple act of communicating one's perceptions powerfully alter those perceptions because communicators attempt to account for this common ground in line with conversational norms (Grice, 1975; Hilton, 1995). In the example of the arrest of Henry Louis Gates, our analysis suggests that African Americans may have adjusted their views of the event as a function of the comments they heard, the source of the comments, and whether they expressed their views to others.

## How Categorization Guides Prejudice Perceptions

Before people have a chance to communicate about a given instance of prejudice, their judgments of the event are strongly influenced by the communications of those around them (Blanchard et al., 1994; Crandall et al., 2002). Consider a woman who suspects that a male political pundit has made a sexist statement. Research implies that the woman's level of perceived sexism and anger might be relatively low upon learning that other women doubted the statement was sexist, but relatively high upon learning

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that other women affirmed that the statement was sexist. That is, people often *assimilate* their judgments toward the communications of other people in their context, particularly if those people are perceived as similar to the self (e.g., as ingroup members; Ledgerwood & Chaiken, 2007; Mussweiler & Bodenhausen, 2002).

However, illustrating the critical importance of categorization in the face of prejudice, *who people are* can be more important than what they actually communicate. Perceivers tend to go along with the judgments of their ingroup regardless of the content of those judgments (G. L. Cohen, 2003), and in times of social conflict with another group, perceivers may reflexively disagree with oppositional outgroups. That is, people tend to *contrast* their perceptions from the perceptions of oppositional or threatening outgroups (Ledgerwood & Chaiken, 2007; Mussweiler & Bodenhausen, 2002). Returning to the sexism example, this suggests that women might report more sexism and anger if other men deny the presence of sexism (as if the denial of sexism is “adding insult to injury”) but less sexism and anger if other men affirm the presence of sexism (as if the acknowledgment indicates that “they’re not all bad”). Several models of social judgment describe how people’s perceptions assimilate toward perceptions of similar (and presumably benevolent) ingroup members, but they tend to contrast away from the perceptions of oppositional or threatening outgroup members (Bless & Schwarz, 2010; Mussweiler, 2003; Turner & Oakes, 1989; see also Sherif & Hovland, 1961; Tajfel & Wilkes, 1963).

The critical point for the present research is that categorization fundamentally guides how others’ communications shape initial prejudice perceptions. Figure 1 presents a schematic model of this tendency and how it might be linked with an individual’s own subsequent communication. The model proposes that when people face potential prejudice directed against their groups, they first categorize, using rapid, holistic assessments, whether a communication is coming from the ingroup or from the offending outgroup (e.g., Mussweiler, 2003; Taylor & Falcone, 1982). Perceivers generally assimilate their own perceptions toward ingroup perceptions and contrast their perceptions away from oppositional outgroup perceptions (Mussweiler, 2003; Mussweiler & Bodenhausen, 2002). However, when people move beyond silently processing the communication to communicating themselves, we propose that what becomes critical is the assumed “common ground.” We propose that this common ground is shaped in part by social categories.

### How Communicators Rely on Social Categories for Common Ground

The social categories that determine initial judgment in the face of prejudice are linguistic representations and are therefore useful for communication (see Hardin & Banaji, 1993). Because people mutually rely on similar categorical dimensions (e.g., gender, race, and age; Fiske & Taylor, 1991), categories allow people to form a common ground when they communicate (Mead, 1927): What one person labels “White” closely approximates what another person labels “White” because both perceivers share a common categorical system, made possible by language (Markman & Makin, 1998; Steels & Belpaeme, 2005). The common ground is the information that others in the social context are assumed to understand (Clark & Schober, 1992). By carrying mutually understood information, categories allow information to be embedded in social contexts without the need to explicitly communicate the information (see Collins, Biernat, & Eidelman, 2009; Jost & Banaji, 1994; Ogle, 2007; Steele, 2001). This common ground information does not sit idly in the background; research suggests that communicators actively use it in ways that alter their perceptions.

A basic axiom of communication is that people deliver their messages with attention to what others know (Bakhtin, 1981; Clark, 1985; Cramton, 2001; Fast, Heath, & Wu, 2009; Fussell & Krauss, 1992; Graumann, 1989; Mead, 1934; Schwarz, 1996; Zajonc, 1960). According to the inclusion/exclusion (IE) model of social judgment (Bless & Schwarz, 2010; Schwarz & Bless, 1992), the existence of common ground in communicative contexts can produce a particular, directional effect on perceptions. The IE model posits that people strive to form communications that are not redundant with respect to what is given to their audience (e.g., Grice, 1975; Sperber & Wilson, 1986). In pursuit of this goal, communicators often *contrast* their messages and judgments away from influences that are “given” in their social context (Bless & Schwarz, 2010).

Illustrating this contrast, in one study participants were surreptitiously primed with words from one of two different categories: positively valenced words (e.g., *helpful*) or negatively valenced words (e.g., *dishonorable*; Strack, Schwarz, Bless, Kübler, & Wänke, 1993). Participants who were not reminded about the prime before judging a target person simply assimilated their judgment toward the prime: They saw the target positively after being primed with positive words, and they saw the target negatively after being primed with negative words. However, participants who were verbally reminded about the valence of the prime,

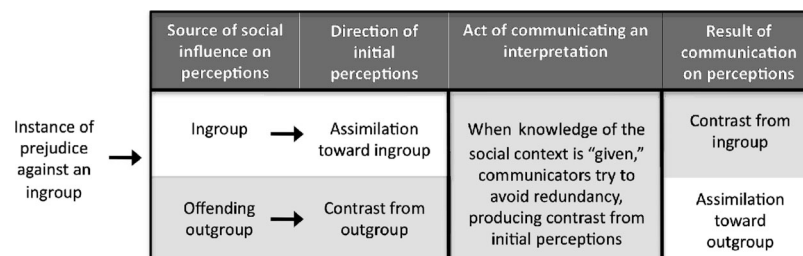


Figure 1. Schematic depiction of how categorization and communication shape perceptions in the face of suspected prejudice against an ingroup.

which thereby made the prime part of the immediate communicative context, made judgments that were *opposite* in valence to the primed categories. They saw the target negatively after being primed with positive words, and they saw the target positively after being primed with negative words (Strack et al., 1993). Making the prime part of the communicative context caused participants to contrast and fully reverse the influence of the prime on their judgments (see also Lombardi, Higgins, & Bargh, 1987; Martin, 1986).

The IE model holds that reminding people about the context is not required for such contrast effects to emerge. Contrast effects can also emerge when people simply describe their impressions of a context (Bless & Schwarz, 2010). Although this aspect of the model has not yet been tested experimentally, other lines of inquiry provide suggestive evidence. In research on accountability effects (Tetlock, 1983), people often moderate the extremity of their initial impressions when they anticipate justifying their positions to others (see Lerner & Tetlock, 1999, for a review). In another line of work, people who communicate about a target actor (but not those who remain silent) “tune” away from their initial impressions and toward the assumed attitudes of their audience (Higgins & Rholes, 1978; Manis, Cornell, & Moore, 1974; Zajonc, 1960). We propose that communicators rely on their initial (unspoken) perceptions of the social context for the common ground and, in an attempt to adhere to conversational norms, they then contrast away from their initial perceptions when they communicate. Moreover, this is a very general tendency, one that may be especially likely to occur in situations in which people communicate about prejudice against their group.

Witnessing prejudice against an ingroup may make people more sensitive to their communicative context and increase the likelihood of communicative contrast. The occurrence of prejudice against an ingroup is associated with low situational power (Sidanius & Pratto, 1999), and low power tends to increase perspective taking and communicative sensitivity (Galinsky, Magee, Inesi, & Gruenfeld, 2006; Gruenfeld, Keltner, & Anderson, 2003). Moreover, being the target of group-based prejudice tends to evoke the interdependent aspects of the self (Tajfel & Turner, 1986), and research has found that communicative sensitivity increases when the collective, interdependent aspects of self are made contextually salient (Haberstroh, Oyserman, Schwarz, Kühnen, & Ji, 2002). These lines of work suggest that, in response to group-based prejudice against the ingroup, the act of describing one’s prejudice perceptions may make people particularly likely to contrast away from the common ground of known information.

Reflecting these ideas, Figure 1 shows how category-driven prejudice perceptions might provide common ground for communicating about the prejudice. People who communicate about their context, unlike people who simply think about their social context, should contrast from *whatever* information is understood as known in their context (Bless & Schwarz, 2010). If initial categorization is that the information comes from the ingroup, this should lead to assimilation to the ingroup. When individuals subsequently communicate within this same context, communication about the event should produce contrast from this position. African Americans might actually contrast from the prejudice perceptions of other ingroup members following communication (contrast from assimilation). Likewise, African Americans might adjust their perceptions *toward* Whites who deny the prejudice (contrast from con-

trast). Analogously, women might contrast from the sexism perceptions of other women and adjust their perceptions toward men who deny sexism. By taking others’ views of the context as given, communicators exclude and contrast their judgment away from the information made available by categorization.

A core feature of Figure 1 is that communicators must assume that the social context, and the category-driven information it contains, is “given” to their audience. When people comment after reading an online news story, for example, they assume that readers of their comment have read the article as well, and thus the article is common ground for that audience (see Clark & Marshall, 1981). But if people are communicating to others who did not read the original article, they may attempt to convey, rather than account for, the communicative context (Sperber & Wilson, 1986). People’s reliance on categories is present both when they initially process information and when they communicate to others. We propose that the categorization of ingroup/outgroup is central during the initial processing of prejudice information, whereas the categorization of what is known/unknown to an audience (i.e., what is common ground) is central during the communication of prejudice. If the audience is categorized as unfamiliar with the social context, communicators should calibrate their message accordingly and should not account for the common ground in their communications.

The aforementioned model focuses on the cognitive processes theorized to occur in the face of prejudice; however, prejudice also arouses strong emotions among targets, namely anger (Ellemers & Barreto, 2009). Consequently, in Study 1 and Study 2, we investigated anger as an emotional correlate of prejudice perceptions. People experience anger in the face of intentional harm from others (Schwarz & Clore, 2007), suggesting that perceived prejudice should be associated with increased anger in response to the event (see Swim, Scott, Sechrist, Campbell, & Stangor, 2003).

## Research Approach and Hypotheses

By linking research on categorization effects with research on communicative common ground, we present a novel approach to understanding people’s experience with prejudice. We test the model in Figure 1 by having participants across three intergroup contexts randomly assigned to either “think” or “write” about their interpretation of a media depiction of prejudice directed against an ingroup. This simple manipulation was designed to provide a picture of how people respond to prejudice prior to communicating and then to observe whether, when holding other factors constant, the act of communicating one’s experience produces contrast from this initial position. In so doing, this manipulation separates the act of thinking about and the act of communicating about a potential act of prejudice (cf. Kim, 2002; Kim & Sherman, 2007). In Study 3, another set of writing instructions is introduced to test the common ground assumption of the present model—namely, that the hypothesized model should not hold when people are categorized as being unfamiliar with the common ground. The three primary hypotheses tested in the present research are as follows:

*Hypothesis 1:* In the face of suspected prejudice against the ingroup, people who silently judge the events will perceive prejudice as a function of social categorization.

*Hypothesis 1a:* Perceptions of prejudice should assimilate toward the perceptions of ingroup members.

*Hypothesis 1b:* Perceptions of prejudice should contrast from the perceptions of oppositional outgroup members.

*Hypothesis 2:* The act of describing their perceptions should cause people to contrast away from the category-driven patterns (assimilation or contrast), effectively reversing the effects of social categorization on perceptions.

*Hypothesis 3:* The process outlined in Hypothesis 2 will not hold, however, when people are communicating to an audience unfamiliar with the common ground. When communicating with a naïve audience, communicators will attempt to convey rather than account for the social context.

Across all studies, the content of the communications that participants produced was analyzed to understand how communication shaped subsequent perceptions. If communicators do indeed tailor their messages and their perceptions to account for the common ground, then the content of participants' messages should reflect their attempt to provide new, nonredundant information.

### Study 1: Perceiving Sexism in the 2008 Presidential Campaign

The 2008 United States Presidential election brought two prominent female candidates, Hillary Clinton (for President) and Sarah Palin (for Vice President), into the national spotlight as they vied for positions of power that had never been held by women. This study sought to approximate how women might learn about the existence of sexism against the candidates. Participants were exposed to an ostensible Internet-based news article reporting on the possible presence of sexism, complete with a comments section in which previous readers had made remarks about the article. The comments section provided the forum for the experimental manipulations, as a majority of the comments originated either from women or from men, and either reported a high or low level of sexism. Participants thought silently about their interpretation of sexism in the article or provided a written interpretation, and their subsequent perceptions of sexism were assessed.

Two ancillary goals of this study were (a) to examine the content of participants' writing to understand the communicative process and (b) to examine the emotional reactions participants reported in response to the sexism. Namely, it was hypothesized that the content of participants' writing and their levels of anger would be closely associated with their perceptions of sexism.

### Method

**Participants and design.** Study materials were made available to all women in a university-maintained United States national subject pool over a 2-day period in December 2009. A total of 180 women ( $M_{Age} = 36.36$  years,  $SD = 13.62$ ) provided complete or almost complete data and were included in the analyses below. The ethnic breakdown of the full sample was 75% White, 15% Asian/Asian American, 6% African American, and 4% from other categories (i.e., Latino, multiracial, or "other"). Participants were randomly assigned to cells of the 2 (majority

group: women vs. men)  $\times$  2 (majority opinion: high perceived sexism vs. low perceived sexism)  $\times$  2 (processing mode: thinking vs. writing) between-subjects factorial design.

**Procedure.** Participants were instructed that they would be asked to evaluate a mainstream news article and that they might be asked to write a brief essay about their reactions to the article. The news article, which was constructed for the present research and formatted to appear like an online article in *The Times of London*, documented suspected sexism directed against former Senator Hillary Clinton and former Governor Sarah Palin during the 2008 primary and presidential campaign seasons. The article quoted a male political strategist talking about the presence of a double standard against women and listed three examples of allegedly sexist statements directed against Clinton and three examples of statements directed against Palin. The article was created based on factual instances in the media, including sexual innuendo (e.g., a comment about Clinton's "cleavage" being on display in the Senate) and assumptions that women were ill suited for holding office (e.g., comments about Palin's obligations to her family).

Immediately after the article, participants encountered comments ostensibly left by previous participants, formatted to appear like comments that appear at the end of a typical Internet news article. Four comments were presented to all participants, and the majority group factor was manipulated by changing the names of the comment bylines. Three female names and three male names were selected and matched on the basis of their high prevalence in the 2000 U.S. Census. Participants randomly assigned to the women majority condition read comments attributed to Jennifer P., Linda A., and mary\_s. Participants randomly assigned to the men majority condition read comments attributed to Daniel P., Paul A., and mike\_s. To help cloak the manipulation from participants, all participants read a fourth comment with an ambiguously gendered byline, MW\_76. Importantly, in all conditions, the three gendered comments were consistent in their judgments of the article, whereas the ambiguously gendered commenter, appearing third in the list, always dissented from the others. Thus, the three gendered comments always formed a 3:1 majority.

In the high-perceived sexism condition, the majority indicated a high level of sexism in the article (e.g., "The statements are clearly sexist"). In the low-perceived sexism condition, the majority indicated the presence of little or no sexism in the article (e.g., "The statements are not necessarily sexist"). Each comment contained between one and three sentences that were crafted to be similar in length and tone between conditions (e.g., in the high-perceived sexism condition, a comment stated, "Although politics is not always fair, I think these statements cross the line," whereas in the low-perceived sexism condition, a comment stated, "Politics is not always fair, but I just don't think these statements cross the line").

Immediately after the comments and prior to completing measures of perceived sexism and anger, processing mode was manipulated by randomly assigning participants to either think or write about their interpretation of the article. Participants in the *writing* condition received the following instructions: "In the space below, describe your interpretation of the statements in the news article. What, if anything, did the statements demonstrate?" A paragraph-sized text box appeared below the instructions. Participants assigned to the *thinking* condition received the following



instructions: “Take a moment and think about your interpretation of the statements in the news article. What, if anything, did the statements demonstrate?” and no essay box was provided.<sup>1</sup>

#### Measures.

**Qualitative coding.** Two coders who were unaware of participants’ condition scored each writing sample in terms of whether it reported the presence of sexism. Participants received a score of  $-1$  if their comment indicated doubt or equivocation about the existence of sexism (e.g., “Seeing as they came from the media, maybe they were just said to stir up trouble, to cause drama where there really may not be much drama. I really don’t think the general population thinks a woman couldn’t handle the position along with a family, or even cares what a candidate is wearing”). Participants received a score of  $0$  if they were noncommittal (e.g., “Some in the media are questioning how they can balance all their responsibilities and roles, and some of them are downright making fun of the candidates”). Participants received a score of  $1$  if they perceived the presence of sexism (e.g., “I do believe the statements to be sexist. They do not ask the male candidates how they are going to cope with being a new father or about them showing some leg”). The two coders gave the same score in 78% of cases ( $\alpha = .83$ ). The scores were then averaged and formed a mean ( $M = 0.38$ ,  $SD = 0.72$ ) that was significantly above zero,  $t(86) = 4.96$ ,  $p < .001$ , which indicated that participants who described their perceptions tended to perceive a significant amount of sexism in the article.

**Perceived sexism.** Following the processing manipulation, all participants answered three questions: “What was your immediate impression of the statements reported in the article?” ( $1 = \text{Not at all sexist}$ ;  $9 = \text{Extremely sexist}$ ); “The statements depict typical, sexist treatment of women in United States society” ( $1 = \text{Strongly disagree}$ ;  $9 = \text{Strongly agree}$ ); and, “I frequently observe sexism against women in my daily life” ( $1 = \text{Strongly disagree}$ ;  $9 = \text{Strongly agree}$ ). The three items formed a reliable composite ( $\alpha = .73$ ,  $M = 6.75$ ,  $SD = 1.42$ ). Among writers, the qualitative measure of perceived sexism was significantly correlated with this measure of perceived sexism,  $r(86) = .59$ ,  $p < .001$ .

**Anger.** Participants responded to four items assessing anger in response to the article. “The statements reported in the article made me feel . . .” ( $1 = \text{Not at all}$ ;  $5 = \text{Very much}$ ): “angry,” “frustrated,” “irritated,” and, “In general, how do statements like those reported in the article make you feel?” ( $-4 = \text{Very angry}$ ;  $0 = \text{Not angry at all}$ ; reverse scored  $1-5$ ). The measure displayed good reliability ( $\alpha = .89$ ,  $M = 3.48$ ,  $SD = 1.07$ ). The measure of anger was positively correlated with both the qualitative,  $r(86) = .44$ ,  $p < .001$ , and the quantitative,  $r(179) = .58$ ,  $p < .001$ , measures of perceived sexism.

## Results and Discussion

Following the model in Figure 1, after only thinking about their interpretation of the article, participants were expected to assimilate their perceptions toward the ingroup but contrast their perceptions away from the oppositional outgroup (Hypothesis 1). However, participants who communicated their interpretation were predicted to contrast from the effects observed among thinkers, thereby resulting in the opposite perceptions (Hypothesis 2). Analyses on women’s perceptions of sexism and their anger about the contents of the article supported these predictions.

**Perceived sexism.** Self-reported perceived sexism scores were subjected to a  $2$  (majority group: men vs. women)  $\times 2$  (majority opinion: high perceived sexism vs. low perceived sexism)  $\times 2$  (processing mode: thinking vs. writing) between-subjects analysis of variance (ANOVA). The analysis uncovered a main effect of majority group, such that participants saw more sexism when the comments came from men ( $M = 6.95$ ,  $SD = 1.48$ ) than when the same comments came from women ( $M = 6.47$ ,  $SD = 1.36$ ),  $F(1, 172) = 4.76$ ,  $p = .03$ ,  $\eta_p^2 = .03$ . Interestingly, this main effect might be explained by the fact that men are the more prototypic perpetrators of sexism and that perceptions of prejudice tend to be higher in prototypic than in nonprototypic instances (Inman & Baron, 1996). No other main effect or two-way interaction effect was significant; however, there was the predicted three-way interaction,  $F(1, 172) = 16.23$ ,  $p = .01$ ,  $\eta_p^2 = .09$ . This interaction is depicted in Figure 2.

To decompose this interaction, we examined tests of simple main effects using the overall error term. The first set of simple effects tests focused on how participants responded to the experimental conditions when they thought silently about the article. These tests were consistent with Hypothesis 1, as participants who thought about the article assimilated their perceptions toward women’s (ingroup) influence but contrasted their perceptions away from men’s (outgroup) influence. That is, thinkers saw a higher level of sexism when other women perceived a high level of sexism ( $M = 6.96$ ,  $SD = 1.25$ ) than when other women perceived a low level of sexism ( $M = 6.08$ ,  $SD = 1.27$ ),  $F(1, 172) = 4.48$ ,  $p = .04$ ,  $\eta_p^2 = .03$ . But as expected, these perceptions reversed in the context of men, as thinkers perceived significantly lower sexism when men perceived a high level of sexism ( $M = 6.47$ ,  $SD = 1.44$ ) than when men perceived a low level of sexism ( $M = 7.42$ ,  $SD = 1.60$ ),  $F(1, 172) = 5.28$ ,  $p = .03$ ,  $\eta_p^2 = .03$ . These findings are consistent with the idea that categorization guides the direction of social judgment, as the female participants assimilated toward the ingroup and contrasted from the outgroup, regardless of the content of what the ingroup and outgroup actually perceived.

To test Hypothesis 2, we conducted simple effects tests to determine whether participants who communicated their perceptions would contrast their perceptions away from the perceptions of thinkers. As such, these tests compare the effects of thinking versus writing. First, when other women perceived high levels of sexism, thinkers also saw a high level of sexism ( $M = 6.96$ ,  $SD = 1.25$ ), whereas participants who communicated an interpretation perceived significantly lower levels of sexism ( $M = 6.13$ ,  $SD = 1.25$ ),  $F(1, 172) = 4.14$ ,  $p = .04$ ,  $\eta_p^2 = .02$ . When other women saw a low level of sexism, thinkers also perceived relatively low levels of sexism ( $M = 6.08$ ,  $SD = 1.27$ ), whereas writers showed a nonsignificant trend toward higher perceptions of sexism ( $M =$

<sup>1</sup> An experiment not reported here held time constant for both thinkers and communicators, requiring each to process a suspected injustice for 90 s. Although the effects were somewhat weaker, the experiment largely replicated the general pattern of outgroup results reported in Studies 1 and 2. In an effort to capture more naturalistic modes of thinking and writing, the present studies allowed participants to write or think for as long as they wished. Although this leaves time unaccounted for, time spent processing was measured in all three studies, and covarying for time spent processing did not appreciably change the results (cf. Gilbert, Lieberman, Morewedge, & Wilson, 2004).

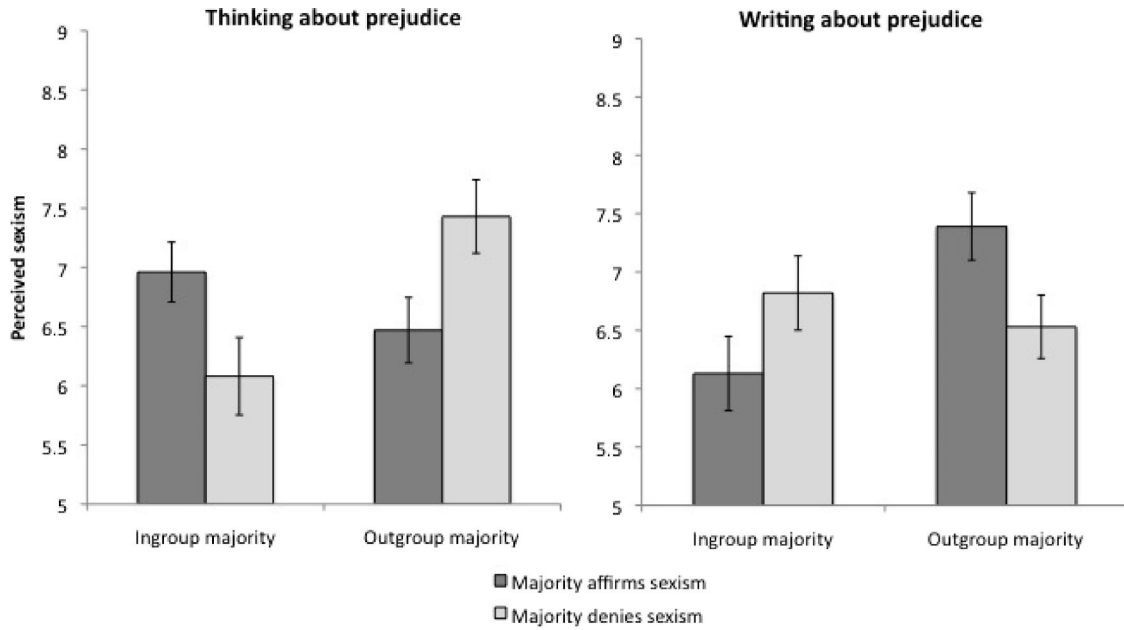


Figure 2. Women's perceived sexism as a function of majority group, majority opinion, and processing mode in Study 1.

6.82,  $SD = 1.47$ ),  $F(1, 172) = 2.65$ ,  $p = .10$ ,  $\eta_p^2 = .02$ . By contrast, when other men perceived a high level of sexism, thinkers' perceived relatively low sexism ( $M = 6.47$ ,  $SD = 1.44$ ), whereas writers contrasted from this position and perceived significantly higher sexism ( $M = 7.39$ ,  $SD = 1.14$ ),  $F(1, 172) = 5.25$ ,  $p = .02$ ,  $\eta_p^2 = .03$ . Likewise, when the male majority perceived a low level of sexism, thinkers perceived relatively high levels of sexism ( $M = 7.42$ ,  $SD = 1.60$ ), whereas writers saw significantly lower sexism ( $M = 6.53$ ,  $SD = 1.53$ ),  $F(1, 172) = 4.73$ ,  $p = .03$ ,  $\eta_p^2 = .03$ .

A final set of simple effects tests examined perceptions of sexism solely among those who communicated. Although the means for communicators did not differ when communicating in the context of women,  $F(1, 172) = 2.32$ ,  $p = .128$ ,  $\eta_p^2 = .01$ , communicators in the male context appeared to tune their perceptions toward the male outgroup, as they saw significantly more sexism when men perceived sexism ( $M = 7.39$ ,  $SD = 1.14$ ) than when men did not perceive sexism ( $M = 6.53$ ,  $SD = 1.53$ ),  $F(1, 172) = 4.73$ ,  $p = .03$ ,  $\eta_p^2 = .03$ . This latter effect is consistent with the expected contrast from initial contrast.

**Anger.** We subjected participants' anger scores to a 2 (majority group: men vs. women)  $\times$  2 (majority opinion: high perceived sexism vs. low perceived sexism)  $\times$  2 (processing mode: thinking vs. writing) between-subjects ANOVA, which yielded results similar to those for perceived sexism. The analysis uncovered a significant main effect of majority group, such that the female participants were generally angrier when the comments came from men ( $M = 3.25$ ,  $SD = 1.20$ ) than when the same comments came from women ( $M = 2.80$ ,  $SD = 1.11$ ),  $F(1, 173) = 7.01$ ,  $p = .01$ ,  $\eta_p^2 = .04$ . No other main or two-way effects were significant. There was, however, a significant three-way interaction,  $F(1, 173) = 16.30$ ,  $p = .01$ ,  $\eta_p^2 = .09$ .

As was the case with perceptions of prejudice, thinkers' anger tended to assimilate toward other women's perceptions and to

contrast from men's perceptions. Specifically, thinkers were significantly angrier when other women perceived a high level of sexism ( $M = 3.16$ ,  $SD = 1.43$ ) than when other women perceived a low level of sexism ( $M = 2.42$ ,  $SD = 0.91$ ),  $F(1, 173) = 4.99$ ,  $p = .03$ . Conversely, thinkers were significantly less angry when the men perceived a high level of sexism ( $M = 2.87$ ,  $SD = 1.01$ ) than when men perceived a low level of sexism ( $M = 3.76$ ,  $SD = 1.21$ ),  $F(1, 173) = 7.24$ ,  $p = .01$ .

Simple effects tests comparing thinking versus writing found that writers contrasted from the aforementioned categorization effects. As was the case with perceptions in support of Hypothesis 2, participants who communicated an interpretation contrasted from the patterns observed among thinkers, but this pattern was only statistically reliable in the outgroup conditions. Although in the expected direction, simple effects tests revealed that in the context of women, thinkers and writers did not arrive at different respective levels of anger ( $F_s = 2.50$  and  $2.46$ ,  $ps > .115$ ). However, in the context of men, the low anger observed among thinkers when men perceived a high level of sexism ( $M = 2.87$ ,  $SD = 1.01$ ) was significantly higher among participants who wrote in this same context ( $M = 3.54$ ,  $SD = 1.11$ ),  $F(1, 173) = 4.34$ ,  $p = .04$ . The high anger observed among thinkers when men doubted the presence of sexism ( $M = 3.76$ ,  $SD = 1.21$ ) was significantly lower when participants wrote in this same context ( $M = 2.82$ ,  $SD = 1.23$ ),  $F(1, 173) = 8.28$ ,  $p = .01$ .

Simple effects tests conducted solely among communicators revealed that in the context of women, anger did not differ as a function of whether women's perceptions were high ( $M = 2.65$ ,  $SD = 1.04$ ) or low ( $M = 2.90$ ,  $SD = 1.04$ ) ( $F < 1.0$ ,  $p = .338$ ). However, in the context of men, communicators tended to assimilate toward men, as they were significantly angrier when men perceived a high level of sexism ( $M = 3.54$ ,  $SD = 1.11$ ) than when men perceived a low level of sexism ( $M = 2.82$ ,  $SD = 1.23$ ),  $F(1, 173) = 5.24$ ,  $p = .02$ .

**Analyses of writing.** Finally, we conducted analyses on the qualitative measure of sexism, based on observed sexism in the writers' comments about the article. Because communicators were expected to account for what was given in the social context, the content of what they actually wrote should tend to exclude the group influence information contained in their respective context. We subjected writing scores to a 2 (majority group)  $\times$  2 (majority opinion) ANOVA. The analysis yielded no main effects, although it did yield a significant two-way interaction,  $F(1, 82) = 4.97, p = .03, \eta_p^2 = .06$ , which revealed a pattern largely in line with expectations. Simple effects inspections of this interaction found no difference in qualitative content when other women's perceptions of sexism were low ( $M = 0.46, SD = 0.74$ ) compared with when their perceptions of sexism were high ( $M = 0.31, SD = 0.79$ ) ( $F < 1.0, p = .51$ ). However, simple effects tests further revealed that participants' writing reflected higher perceived sexism when men perceived high levels of sexism ( $M = 0.66, SD = 0.55$ ) than when men perceived low levels of sexism ( $M = 0.13, SD = 0.74$ ),  $F(1, 82) = 6.87, p = .01, \eta_p^2 = .08$ . Together with the fact that this qualitative measure was positively associated with the quantitative measure of perceived sexism ( $r = .59, p < .001$ ), the findings in the men condition provide evidence consistent with the present account: Participants' tailored their messages in accordance to what was given in the social context by excluding the social influence information from their messages.

**Summary.** Study 1 found support for the model presented in Figure 1 and for Hypotheses 1 and 2. Participants' responses to prejudice following thought were largely determined by categorization, as participants assimilated their reactions toward the ingroup and contrasted their reactions from the outgroup. This pattern was largely replicated with participants' self-reported anger. Such results attest to the powerful role that group influence and categorization play in shaping experiences with prejudice. But Study 1 further suggested that the categorical nature of such group influence provides a useful reference point for communicators. In the face of prejudice against one's group, communicators appeared to attend to and contrast away from the category-driven effects associated with thought. Although the effects were nearly symmetrical between ingroup and outgroup conditions, simple effects tests revealed clear evidence that, in the outgroup context, communication produced judgments that were directly opposite to the judgments of thinkers. Evidence from the qualitative content analyses of participants' writing suggested that this effect did not simply occur after participants finished communicating. Rather, it appeared to emerge during the communication itself. Communication appeared to override and reverse the effects of group influence seen on the judgment of noncommunicators.

In Study 2, we sought to test the generality of the model by examining African Americans and their perceptions of prejudice. For African Americans in the United States, not only are group members frequently faced with prejudice (Bonilla-Silva, 2003), the numerical size of the ingroup composes a relatively small proportion of the American populous (about 13%), and thus these individuals are likely to be exposed to outgroup views about race and race relations quite frequently. In Study 2, we focused solely on an outgroup context and tested Hypotheses 1b and 2. In Study

3, by contrast, we focused solely on an ingroup context and sought to test Hypotheses 1a, 2, and 3.

## Study 2: Perceiving Prejudice in Sales

African Americans are frequently exposed to subtle, ambiguous forms of prejudice (e.g., Gaertner & Dovidio, 1986). This study presented African American participants with video footage from a documentary on the subtle prejudices faced by African Americans in the contemporary United States. Although the footage did not conclusively demonstrate an instance of prejudicial treatment, pretesting with African American participants showed that the vast majority of participants suspected prejudicial motives from the White actor in the video. Participants were given false information about whether "previous participants, most of whom have been White" had seen prejudice in the video. What these previous participants ostensibly saw was experimentally manipulated (high prejudice vs. low prejudice) analogously to Study 1. By highlighting the salience of outgroup perceptions, participants who merely thought about the video were hypothesized to contrast their reactions away from whatever the (outgroup) majority perceived. Participants who put their thoughts into writing, however, should contrast away from this categorically coded information, effectively causing participants to assimilate their perceptions toward the perceptions of Whites.

## Method

**Participants and design.** Seventy-eight African Americans (59 women; 19 men;  $M_{Age} = 31.52$  years,  $SD = 8.47$ ) were recruited via e-mail from a university-maintained subject pool consisting of United States residents with Internet access who had previously signed up to participate in research. All participants received a \$5 gift certificate to an online retailer. One participant reported being unable to watch the video and was excluded from the analyses. Participants were randomly assigned to cells of the 2 (majority perceptions: high perceived prejudice vs. low perceived prejudice)  $\times$  2 (processing mode: thinking vs. writing) between-subjects factorial design.

**Procedure.** Participants linked to a weblog created for this study in which the video footage was embedded using YouTube technology. The video introduced one Black male and one White male and described them as holding similar jobs, similar levels of education, and having similar hobbies. Participants learned that the two actors were taking part in a documentary on modern race relations, and a hidden camera would record the actors' experiences. Next, the Black and White actors took turns visiting car sales lots while the camera recorded how they were treated. After one incident in which the Black actor was quoted a higher down payment than the White actor, the two actors went to a second lot and sequentially asked the same White salesman about the same red sports car. The salesman quoted a higher price and requested a larger down payment for the Black customer (\$9,500 with 20%–25% down) than for the White customer (\$9,000 with 10%–20% down). Each quote was presented graphically on the screen while the female narrator highlighted the discrepancies between

the two actors. When the salesman was confronted on camera, he denied any wrongdoing, and the clip ended.<sup>2</sup>

**Majority perceptions.** All participants were told that a major purpose of this research was to understand how people perceived the events in the video. In the high-perceived prejudice condition, participants read, “Of all people who have watched the video so far, most of whom were White, a large majority (63%) indicated they thought the salesman was prejudiced.” Participants in the low-perceived prejudice condition read the same text, except they learned that 63% of previous participants had “thought the salesman was not necessarily prejudiced.” Participants were then instructed that they would be asked about their own views of the video.

**Processing manipulation.** Participants were randomly assigned to either think or write about their interpretation of the video, as they were in Study 1.

**Qualitative coding.** Participants’ writing was analyzed as it was in Study 1. Two coders who were unaware of participants’ condition assigned a code depending on whether participants’ writing reflected doubt about the presence of prejudice/discrimination (−1), ambivalence (0), or certainty about the presence of prejudice/discrimination (1), respectively. The coders assigned the same score to 88% of the cases ( $\alpha = .92$ ). Notably, fully 85% of writers (34 out of 40) were mutually coded as having detected prejudice/discrimination in the video, and the overall mean was significantly different from zero ( $M = 0.76$ ,  $SD = 0.57$ ),  $t(39) = 8.36$ ,  $p < .001$ .

**Perceived prejudice.** Participants answered the following questions: “At the end of the clip, what was your immediate impression of the salesman?” (1 = *Not at all prejudiced*; 9 = *Extremely prejudiced*) and “In your opinion, do you think the salesman intentionally quoted higher prices to the Black customer because of race?” (1 = *No, definitely not intentional*; 9 = *Yes, it was definitely intentional*). The two items formed a reliable composite ( $\alpha = .80$ ,  $M = 7.55$ ,  $SD = 1.45$ ). This measure was significantly correlated with the qualitative measure of perceived prejudice,  $r(37) = .37$ ,  $p < .02$ .

**Anger.** Participants responded to a measure of anger similar to that used in Study 1. Participants responded to five items, coded so that higher scores indicated higher anger: “The video made me feel . . .” (1 = *Not at all*; 5 = *Very much*): “angry,” “frustrated,” “irritated,” “How did the video make you feel?” (−4 = *Very negative*; 0 = *Not negative at all*; reverse scored to range from 1 to 5), and, “In general, how angry do events like those depicted in the video make you?” (−4 = *Very angry*; 0 = *Not angry at all*; reverse scored from 1 to 5). The measure was reliable ( $\alpha = .89$ ,  $M = 3.48$ ,  $SD = 1.07$ ). This measure was not significantly correlated with the qualitative coding measure,  $r(37) = .22$ ,  $p = .17$ , although it was significantly correlated with the self-report measure of perceived prejudice,  $r(76) = .59$ ,  $p < .001$ .

## Results and Discussion

**Perceived prejudice.** We subjected self-reported perceived prejudice scores to a 2 (majority perceptions: high perceived prejudice vs. low perceived prejudice)  $\times$  2 (mode of processing: thinking vs. writing) between-subjects ANOVA. This analysis did not yield significant main effects ( $F_s < 1.00$ ,  $p_s > .355$ ). However, there was a significant two-way interaction,  $F(1, 71) = 7.32$ ,  $p = .01$ ,  $\eta_p^2 = .10$  (see Figure 3). Consistent with Hypotheses 1b,

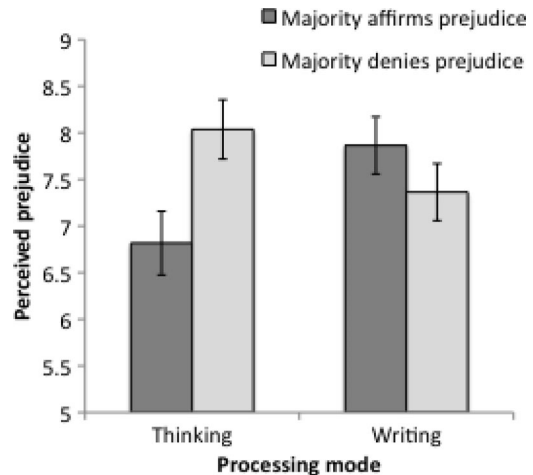


Figure 3. African Americans’ perceived prejudice as a function of majority opinion and processing mode in Study 2.

participants who only thought about the video appeared to contrast from the outgroup majority. That is, when participants only thought about the video, they perceived significantly more prejudice when the majority perceived a low level of prejudice ( $M = 8.03$ ,  $SD = 1.26$ ) than when the majority perceived a high level of prejudice ( $M = 6.82$ ,  $SD = 1.83$ ),  $F(1, 71) = 6.78$ ,  $p = .01$ ,  $\eta_p^2 = .09$ .

Partial support was also obtained for Hypothesis 2, as participants who communicated appeared to contrast away from the patterns associated with thought and thereby assimilate toward the outgroup majority (contrast from contrast). Whereas observers who thought about prejudice perceived a relatively low level of prejudice ( $M = 6.82$ ,  $SD = 1.83$ ), participants who wrote about prejudice perceived a relatively high level of prejudice ( $M = 7.86$ ,  $SD = 1.26$ ),  $F(1, 71) = 5.22$ ,  $p = .03$ ,  $\eta_p^2 = .07$ . When Whites doubted the presence of prejudice, participants who thought about it perceived a relatively high level of prejudice ( $M = 8.03$ ,  $SD = 1.26$ ), whereas participants who wrote about it perceived a relatively low level of prejudice ( $M = 7.36$ ,  $SD = 1.53$ ), although this contrast was not significant,  $F(1, 71) = 2.31$ ,  $p = .13$ .

Finally, simple effects tests on only those who communicated about the prejudice found no difference in perceptions among writers in the high- ( $M = 7.86$ ,  $SD = 1.26$ ) and low-perceived sexism ( $M = 7.36$ ,  $SD = 1.53$ ),  $F(1, 71) = 1.34$ ,  $p = .250$ .

**Anger.** We subjected participants’ anger scores to a 2 (majority opinion: high perceived prejudice vs. low perceived prejudice)  $\times$  2 (mode of processing: thinking vs. writing) ANOVA. Neither main effect was significant. However, replicating the pattern seen on perceived prejudice, there was a significant two-way interaction,  $F(1, 72) = 8.00$ ,  $p = .01$ ,  $\eta_p^2 = .10$ . Simple effects tests found that among participants who thought about the video, those in the low-perceived prejudice condition were significantly angrier ( $M = 3.72$ ,  $SD = 0.90$ ) than those in the high-perceived

<sup>2</sup> Footage was edited from an episode of ABC’s *Primetime Live* (Lucasiewicz & Harvey, 1991; see discussions of this clip in Cose, 1993, and Aronson, Wilson, & Brewer, 1998).



prejudice condition ( $M = 2.99, SD = 1.00, F(1, 72) = 4.49, p = .02, \eta_p^2 = .06$ ).

The pattern of means was also consistent with the present argument that communicators contrast from the position of thinkers. Simple effects tests revealed that when Whites affirmed the presence of prejudice, participants reported lower anger when they thought about the prejudice ( $M = 2.99, SD = 1.00$ ) than when they described the prejudice ( $M = 3.92, SD = 1.18, F(1, 72) = 7.50, p = .01, \eta_p^2 = .10$ ). Conversely, when Whites doubted the presence of prejudice, participants reported higher anger when they thought about the prejudice ( $M = 3.72, SD = 0.90$ ) than when they wrote about the prejudice ( $M = 3.32, SD = 0.95$ ), although this difference was not statistically significant,  $F(1, 72) = 1.49, p = .226$ .

Finally, a comparison between writing conditions indicated that participants were marginally angrier when most Whites perceived prejudice ( $M = 3.92, SD = 1.18$ ) than when they did not ( $M = 3.32, SD = 0.95, F(1, 72) = 3.50, p = .07, \eta_p^2 = .04$ ).

**Analyses of writing.** No difference was detected in qualitative assessments of participants' writing between conditions ( $F < 1.0, ns$ ). It appeared that mean levels of perceived prejudice were so high overall ( $M = 0.76, SD = 0.57$ ) that it obscured variation in the contents of participants' writing.

**Summary.** When the salient comparison standard was composed of a White majority, African American participants who merely thought about suspected prejudice reported perceptions that contrasted away from the perceptions of Whites. Participants perceived more prejudice and were angrier when Whites did not perceive prejudice than when Whites did perceive prejudice. This pattern is consistent with Hypothesis 1b. The findings for thinkers are also reminiscent of research suggesting that people are especially outraged when they believe that perpetrators of injustice are likely to "get away" with their misdeeds (Goldberg, Lerner, & Tetlock, 1999), but may be relatively calm and unalarmed in cases in which many others in the context do perceive an egregious act of prejudice (akin to a diffusion of responsibility effect; Darley & Latané, 1968).

Participants who not only thought silently but also wrote down their thoughts about the video displayed a qualitatively different pattern of reactions. In general, writing caused people to contrast away from the patterns observed after thought alone—toward rather than away from the ostensible reactions of the outgroup. Although not all simple effects comparisons were significant, all means were in the predicted direction. This study therefore builds on Study 1 by expanding the generality of the proposed model, as qualitatively similar outgroup category effects were observed in a very different intergroup context with a different prejudice stimulus and a different manipulation of majority perceptions. Study 3 now shifts attention back to an ingroup influence context and manipulates the assumed common ground. On the basis of the idea that categories guide the judgment of noncommunicators but that communicators contrast from this categorical information, this shift to an ingroup category context was expected to bring about a reversal in the general effects seen in Study 2. However, the main purpose of Study 3 was to test the assumption that common ground is necessary for the effects in Studies 1 and 2 to hold (Hypothesis 3).

### Study 3: Perceiving a Government-Led Conspiracy

In Study 3, we investigated how Americans respond to purported evidence of a United States government conspiracy to cover up involvement in the attacks of September 11, 2001 (9/11). Polling evidence suggests that a nontrivial portion of the American populous believes in some type of 9/11 government conspiracy. A Scripps Howard/Ohio University poll in 2006 found that roughly one third of Americans believe that the government either assisted or had foreknowledge of the attacks and did nothing to stop them (Hargrove, 2006; see also Zogby Poll, 2007). This level of support put endorsement of 9/11 conspiracies just behind the endorsement of other well-known conspiracies, such as the belief that the government officials were responsible for the assassination of President John F. Kennedy in 1963 (Scripps News, 2006).

As in Study 1, participants were exposed to a news article in which the comments ostensibly left by previous participants were systematically manipulated. Given that participants were themselves Americans taking the survey in the United States, participants were hypothesized to assimilate toward the influence of the ingroup when thinking about the conspiracy but to display a pattern of contrast when asked to put their thoughts into language. Moreover, we sought to further explore in Study 3 a key theoretical assumption of the two previous studies.

If, as the present research suggests, communicators are sensitive to the social context, then the communicative effects observed in Studies 1 and 2 should be limited to situations when they are contextually appropriate. For example, they should be limited to situations in which communicators can categorize their audience as being familiar with the common communicative ground in their social context. People can communicate about a given story that is assumed to be known to others in the social context (e.g., when others are assumed to have read a particular article), but this is far from the only way people communicate. They may also "spread the news" to an audience who does not know about the story or its associated common ground. Whereas communicators should logically engage in communicative inferences and remove given social influences when communicating about a given set of events (i.e., one in which others' views are known or assumed to be understood in the social context), they should not do so when spreading news of the events to a naïve audience who is unfamiliar with the events or the social context. Instead, communicators may convey rather than account for the social context in their communication.

To test these ideas, we assigned participants to one of three groups that varied in how they processed the conspiracy. Whereas two groups of participants were asked to think or write, respectively, as in Studies 1 and 2, a third group was instructed to write as if they were interpreting and describing the contents of the news article to an audience who was unfamiliar with the article. In this condition, it was hypothesized that communicators would not exclude the contextual information from their construals because their audience was not familiar with the given social context (Gibbs, 1987). It was therefore hypothesized that participants in this condition would assimilate toward the social context and display a similar pattern to participants who merely thought about the article.

## Method

**Participants and design.** Seventy-four American residents (38 men and 36 women;  $M_{Age} = 33.76$  years,  $SD = 10.74$ ) were recruited from a university-maintained national subject pool via e-mail and given a \$5 gift card to an online retailer for completing the experiment. The sample was 67% White, 22% Asian American, 8% Latino, and 3% from other categories. Participants were randomly assigned to cells of the 2 (majority disposition: conspiracy believers vs. conspiracy skeptics)  $\times$  3 (processing mode: thinking vs. writing vs. writing to naïve audience) between-subjects factorial design.

**Procedure.** After being introduced to a study on conspiracies in the media, participants encountered an ostensible weblog article titled, “9/11 Conspiracy Theory: What do you believe?” The article was written in a persuasive tone in an effort to sway readers to believe that the U.S. government may have known about or actively participated in bringing about the events of 9/11/2001. The article listed six pieces of evidence of the alleged conspiracy, commonly cited by conspiracy theorists (e.g., Joseph, 2007; Von Kleist & Lewis, 2004), such as that President George Bush and Vice President Dick Cheney went to great lengths to limit the investigation into the attacks, that the World Trade Center buildings, including the much smaller and less publicized Building 7, appeared to have been brought down by a controlled demolition, and that several of the supposed suicide-hijackers might actually still be alive. The article concluded by pointing out that many Americans view such conspiracy claims as ridiculous, followed by a (fictitious) quote from an expert on conspiracy theories, “Any time you have an event of such magnitude, you’ll have people trying to explain the event with conspiracy theories.”

**Majority opinion.** Immediately after the article, participants encountered four comments about the article, ostensibly left by previous participants. As in Study 1, the majority factor was manipulated using a 3:1 ratio. For participants assigned to the *high-perceived conspiracy* condition, three of the four comments endorsed the conspiracy theory (e.g., “The government was definitely involved. Virtually all the evidence runs contrary to the government’s official story. some people will never face the truth”). For participants assigned to the *low-perceived conspiracy* condition, three of the four comments cast doubt on the conspiracy theory (e.g., “There’s no way the government was involved. Virtually all the evidence is completely consistent with the government’s official account. some people will never face the truth”). The bylines of the four comments were always Mike A., Julie V., DLL, and skeptic4life. The lone dissenter in each condition always appeared third in the list (DLL), and always made a comment that directly opposed the others.

**Processing mode.** Participants were then assigned to either think about their interpretation of the article (as in the previous studies), to write down their interpretation of the article (as in the previous studies), or to describe and interpret the article as if they were writing to a naïve audience. Specifically, participants in this latter condition received the following instructions, which were adapted from instructions developed by Ray, Wilhelm, and Gross (2008) to change participants’ cognitive appraisals:

In the space below, please briefly describe and interpret the article as if you were writing to people who had not read the article. For example, you might imagine you are describing the article to an

impartial audience. The main thing to keep in mind is that the audience is unfamiliar with the contents of this particular article.

**Qualitative coding.** As in the previous studies, two coders who were unaware of participants’ condition analyzed the writing by categorizing those who expressed doubts about the evidence of conspiracy (−1), those who did not take a side (0), and those who expressed endorsement of evidence of conspiracy (1). The two coders independently assigned the same code to 74% of the cases ( $\alpha = .84$ ), and their scores were averaged together. The result was a coding variable with a mean ( $M = -0.14$ ,  $SD = 0.77$ ) that did not differ significantly from zero,  $t(49) = -1.30$ ,  $p = .20$ . This indicated that participants’ writing, as a whole, did not reflect decisive perceptions about the alleged conspiracy.

**Perceptions of conspiracy.** Endorsement of the conspiracy theory was assessed for all participants with three items (1 = *Strongly disagree*; 7 = *Strongly agree*): “The government knowingly allowed the attacks of 9/11 to happen”; “The government had nothing to do with carrying out the attacks of 9/11” (reverse scored); and, “Do you think that elements of the United States government were involved in carrying out the attacks, or do you think the government was not involved?” (1 = *Government was definitely involved*; 7 = *Government was definitely NOT involved*; reverse scored). Participants’ assessment of the article was measured with two items: “What was your immediate impression of the article you read?” (1 = *Not at all*; 7 = *Very much*), “Convincing,” “Ridiculous” (reverse scored). Although the initial plan was to create separate indices for conspiracy perceptions and article evaluations, the two dimensions were so highly correlated that they were combined into a single composite, which displayed high reliability ( $\alpha = .91$ ,  $M = 3.45$ ,  $SD = 1.75$ ). This measure displayed a strong correlation with the qualitative measure obtained from writers ( $r = .73$ ,  $p < .001$ ).<sup>3</sup>

## Results and Discussion

We subjected participants’ self-reported conspiracy perception scores to a 2 (majority perceptions: high perceived conspiracy vs. low perceived conspiracy)  $\times$  3 (processing mode: thinking vs. writing vs. writing to a naïve audience) between-subjects ANOVA. No main effects were significant. However, there was a significant two-way interaction,  $F(1, 68) = 7.64$ ,  $p = .01$ ,  $\eta_p^2 = .18$ , which revealed a pattern directly in line with predictions (see Figure 4). Simple effects tests showed that, in line with Hypothesis 1a, thinkers tended to assimilate toward the American ingroup, as perceptions of conspiracy were significantly higher when the majority believed in the conspiracy ( $M = 4.42$ ,  $SD = 2.02$ ) than when the majority doubted the conspiracy ( $M = 3.03$ ,  $SD = 1.32$ ),  $F(1, 68) = 4.57$ ,  $p = .04$ ,  $\eta_p^2 = .06$ .

In line with Hypothesis 2, participants who received the standard communication instructions contrasted from these positions. When the majority believed in conspiracy, thinkers’ perceptions of conspiracy were significantly higher ( $M = 4.42$ ,  $SD = 2.02$ ) than

<sup>3</sup> This study did not include measures of anger as in the previous two studies. This was largely because, unlike the last two studies, it was not clear what the target of participants’ anger would be. Participants might be just as likely to get angry about the conspiracy accusation as about the possibility of the conspiracy.

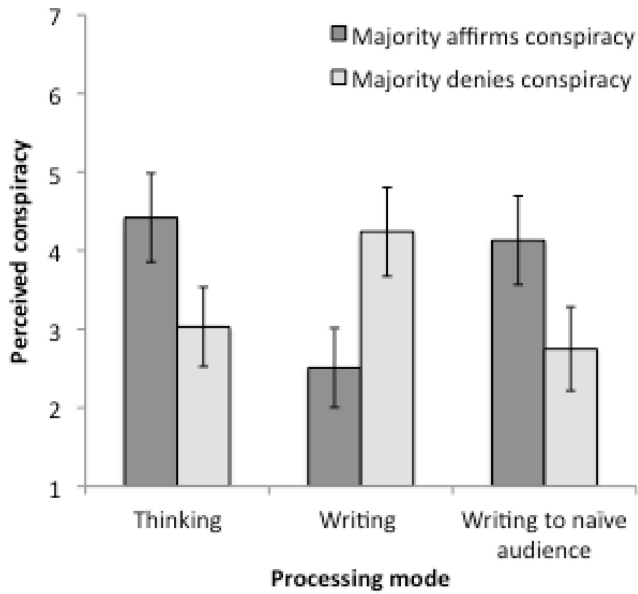


Figure 4. Americans' perceptions of government-led conspiracy as a function of majority opinion and processing mode in Study 3.

writers' perceptions of conspiracy ( $M = 2.51$ ,  $SD = 1.38$ ),  $F(1, 68) = 9.25$ ,  $p = .01$ . When the majority was skeptical of the conspiracy, thinkers' perceptions of conspiracy were marginally lower ( $M = 3.03$ ,  $SD = 1.32$ ) than writers' perceptions of conspiracy ( $M = 4.23$ ,  $SD = 2.02$ ),  $F(1, 68) = 3.31$ ,  $p = .07$ ,  $\eta_p^2 = .04$ .

Comparing just the two writing cells in which participants received standard instructions, writers' perceptions of conspiracy were significantly higher when the majority was skeptical of the conspiracy ( $M = 4.24$ ,  $SD = 1.77$ ) than when the majority endorsed the conspiracy ( $M = 2.51$ ,  $SD = 1.38$ ),  $F(1, 68) = 7.20$ ,  $p = .01$ ,  $\eta_p^2 = .10$ , indicating that writing resulted in a complete reversal from thinking.

Study 3 included a critical condition to test Hypothesis 3 and thereby shed light on the communicative inference process. If communicators are not able to make common ground assumptions, they should not take the contextual information as given and should thereby fail to account for the outcomes associated with thought. This is exactly what happened. Participants who wrote to a naïve audience displayed an assimilation pattern that was indistinguishable from thinkers ( $F_s < 1.00$ ,  $p_s > .670$ ). Reflecting assimilation toward the contextual influences, when the majority endorsed the conspiracy, perceptions of the conspiracy were significantly higher ( $M = 4.13$ ,  $SD = 1.95$ ) than when the majority was skeptical of the conspiracy ( $M = 2.75$ ,  $SD = 1.25$ ),  $F(1, 68) = 4.14$ ,  $p = .05$ ,  $\eta_p^2 = .06$ .

Comparing the two writing conditions, when the majority believed in the conspiracy, perceptions of conspiracy were significantly higher among participants writing to a naïve audience ( $M = 4.13$ ,  $SD = 1.95$ ) than among participants who simply wrote about the prejudice ( $M = 2.51$ ,  $SD = 1.38$ ),  $F(1, 68) = 6.34$ ,  $p = .01$ ,  $\eta_p^2 = .08$ . When the majority was skeptical of the conspiracy, perceptions were significantly lower among those writing to a naïve audience ( $M = 2.75$ ,  $SD = 1.25$ ) than among participants

who simply wrote about the prejudice ( $M = 4.24$ ,  $SD = 1.77$ ),  $F(1, 68) = 4.81$ ,  $p = .03$ ,  $\eta_p^2 = .06$ .

**Analyses of writing.** We subjected the measure of qualitative coding, representing the extent to which conspiracy was endorsed in participants' writing, to a 2 (majority perceptions: high perceived conspiracy vs. low perceived conspiracy)  $\times$  2 (processing mode: writing vs. writing to a naïve audience) between-subjects ANOVA. Although no main effects were significant, there was a significant two-way interaction,  $F(1, 45) = 6.36$ ,  $p = .02$ ,  $\eta_p^2 = .12$ , which revealed a pattern consistent with self-reported conspiracy perceptions. Namely, writers who received standard instructions contrasted from the given context, whereas participants writing to a naïve audience assimilated toward the given context. Among writers given the standard instructions, perceptions of conspiracy were marginally higher when the majority doubted the conspiracy ( $M = 0.09$ ,  $SD = 0.70$ ) than when the majority endorsed the conspiracy ( $M = -0.50$ ,  $SD = 0.68$ ),  $F(1, 45) = 4.10$ ,  $p = .05$ ,  $\eta_p^2 = .08$ . Conversely, when participants were writing to a naïve audience, perceptions did not differ,  $F(1, 45) = 2.42$ ,  $p = .13$ , although they were in the predicted direction ( $M_s = 0.23$  and  $-0.25$ ,  $SD_s = 0.85$  and  $0.72$ , for high and low perceptions of conspiracy, respectively).

**Summary.** As predicted on the basis of categorization, participants who simply thought about the conspiracy theory tended to assimilate toward other ingroup members in their context: They saw the government conspiracy as more likely when others saw a high level of conspiracy than when others saw a low level of conspiracy. When participants were asked to "write" rather than "think" about the conspiracy, they contrasted from thinkers and actually saw less conspiracy when the ingroup endorsed the conspiracy than when the ingroup was skeptical of it. Finally, and most critically, the communicative contrast effects were not inevitable. Rather, when participants wrote to an audience who was categorized as unfamiliar with the context, they assimilated toward the ingroup's influence, which resulted in a pattern that was indistinguishable from thinkers but significantly different than writers given the standard instructions. As such, it appears that people's tendency to engage in conversational inference is dependent on whether individuals believe relevant information is given as common ground in the communicative context.

## General Discussion

The results of three experiments suggest that the basic difference between thinking and communicating about suspected prejudice against an ingroup, such as sexism, racism, or perceived conspiracies, can have powerful consequences for how the prejudice is experienced. Participants who simply thought about suspected prejudice displayed reactions that were determined by categorization: They tended to assimilate their perceptions toward the perceptions of ingroup members (Studies 1 and 3) and to contrast their perceptions away from the perceptions of oppositional outgroup members (Studies 1 and 2). Conversely, those who communicated their reactions in the identical context contrasted away from these perceptions and tended to arrive at the opposite judgments. Moreover, only when communicators could assume the categorical information in their context was "given" (in Study 3) did they actively exclude this information from their messages and their perceptions.

The present findings therefore support the model presented in Figure 1 and yield new insights into how the two basic processes of categorization and communication might be psychologically linked. The results are consistent with the possibility that people's reliance on categorization to guide incoming information is both a means to silently manage a complex informational environment and, simultaneously, a means to coordinate communication by providing a common ground for parties in the social context. Demonstrating the power of categorization, the impact of what other people said (high- or low-perceived prejudice) appeared to be completely determined by who was saying it (ingroup or outgroup members). And demonstrating the power of conversational norms, communicators appeared to actively exclude and reverse the impact of categorization from perceptions, provided they could assume such information was "given" as common ground in the social context.

The findings make contributions to the research literature in at least three additional ways. First, the findings inform research on the psychology of perceiving prejudice. Although there are many factors that determine when people do and do not perceive prejudice, previous work has shown that the views of others can powerfully change people's perceptions (Blanchard et al., 1994; Greenberg & Pyszczynski, 1985). Such work has focused on conditions analogous to when participants in the present studies simply thought about prejudice. By showing how the effects of social influence qualitatively change when people move from thinking to describing their perceptions, the present findings indicate that the effects of social influence on prejudice judgments is highly malleable, dynamic, and dependent on the fundamental distinction between thought and communication. The results show that when people communicate about prejudice, their communications are not simply overlays of preexisting thought (Holtgraves & Kashima, 2008). Rather, the act of describing one's perceptions can fundamentally alter those perceptions and the associated emotional reactions to the focal events.

Second, the present findings contribute to understanding assimilation and contrast effects in social judgment. Although most research on assimilation and contrast effects has not considered the independent impact of communication on judgment, the present research suggests that communication can have a profound impact on judgment. In line with expectations of the IE model (Bless & Schwarz, 2010), participants contrasted from the "given" influences in their social context when they described their perceptions to an audience who was assumed to be familiar with these influences. We illustrated this tendency while documenting a connection between the assimilation/contrast effects that occur when people silently process information (e.g., Mussweiler, 2003) and the contrast effects that can occur as people strive to adhere to conversational norms. That is, we showed how communication can result in contrast from assimilation (Studies 1 and 3) and in contrast from contrast (Studies 1 and 2). These findings point to a communicative contrast process, modeled in Figure 1, which operates in specific cases following the outcome of initial judgment regardless of what that initial judgment is (assimilation or contrast).

The findings also extend Biernat's (2005; Biernat, Manis, & Nelson, 1991) shifting standards model of social judgment. The shifting standards model holds that assimilation and contrast effects in social judgment can be brought about by changes in the

standards by which others are judged. When people make judgments with respect to a specific comparison standard (but not when made with reference to a subjective, open-ended standard), judgmental contrast effects tend to emerge (see Biernat, Manis, & Kobrynowicz, 1997). The present findings suggest that communication resulted in contrast because communicators made judgments with reference to the specific standards produced during thought. That is, our findings indicate that although people might use subjective standards when initially processing information, this subjective standard provides a specific comparison point (or common ground) from which communicators may contrast (cf. Collins et al., 2009) when it is appropriate to do so.

Third, the present findings have implications for understanding the role of communication in contemporary social movements and collective action in the face of prejudice. Given that group behavior always involves both communication and silence—the transmission and receipt of social influence—the fact that social movements against prejudice happen at all suggests that an understanding of the interplay between these two modes of response is needed. Below, we extrapolate from the present findings to suggest a novel perspective about the role of communication in shaping the direction of social movements.

### Communication, Silence, and Collective Action

The findings across the three studies suggest that communication can have paradoxical effects. On one hand, the present findings indicate that receiving the opportunity to voice one's opinion and be heard might allay the frustrations of the offended group, increase perceptions of system legitimacy, and lead to acceptance of negative social outcomes. On the other hand, the present findings allow that voice and verbal communication might result in *consciousness-raising*, whereby group members who discuss prejudice against the ingroup actually discover more injustice and become more enraged. We discuss and analyze examples of each possibility below.

**When communication stifles collective action.** In the aftermath of Hurricane Katrina, a 2005 Gallup Poll found that 60% of African Americans thought the government's slow response was attributable to the victims being predominantly Black. White Americans dramatically disagreed, as 86% of Whites indicated the victims' race was not a reason for the delayed government response (Saad, 2005; see also Adams, O'Brien, & Nelson, 2006). The present studies indicate that for African Americans thinking about this situation, the conjunction of these two beliefs (i.e., that most ingroup members perceived racial bias, whereas most Whites did not) would result in strong perceptions of prejudice and anger. However, the present research further suggests that if such individuals communicated their reactions in this context, then they might actually contrast away from initial perceptions and lower their perceptions of prejudice and anger. Indeed, much research suggests that forming and describing narratives can reduce the negativity associated with negative social events.

Research on the voice effect in procedural justice, for example, suggests that having the opportunity to express one's views about a distributive outcome increases perceptions of fairness and acceptance with negative outcomes (Lind, Kanfer, & Early, 1990). Research on expressive communication (Pennebaker, 1997; Pennebaker, Kiecolt-Glaser, & Glaser, 1988) has shown how repeated



communication about negative life events can help people cope with the events and improve overall health (see also Lyubomirsky, Sousa, & Dickerhoof, 2006). The present research suggests that communication may be most likely to produce these calming effects when it occurs in conjunction with the belief that one's self or one's ingroup is subject to a negative experience that the perpetrators do not see or acknowledge. Communication in such circumstances allows individuals to take their views and the views of others as given, perhaps increasing acceptance and adjustment in dealing with the negative outcomes.

Taken a step further, we suggest that widespread communication and freedom of speech can have the ironic consequence of taking the steam out of social movements, as communication can cause tuning away from the ingroup influences and toward the oppositional outgroup influences. Conversely, one means of increasing perceived injustice and anger might be for the aggrieved to simply ruminate about prejudice that is not acknowledged by the offending outgroup. Much research in psychology has found that prolonged thinking and rumination about negative events tends to prolong or exacerbate negative affect stemming from the event (Nolen-Hoeksema, 2000). Lack of voice in cases of suspected injustice has been noted as a negative, potentially radicalizing experience that can increase anger (Shelton, Richeson, Salvatore, & Hill, 2006) and motivate violent, collective action (see Moghaddam, 2005). Thus, the present analysis highlights psychological pathways by which communication of prejudice or injustice may attenuate collective action.

**When communication facilitates collective action.** However, communication can also have escalatory effects on anger and perceived prejudice. The present findings suggest this might occur when members of the ingroup do not perceive the prejudice, when members of the outgroup do perceive the prejudice, or both ("They see it, but we do not"). For example, in 2002, former Senator Trent Lott commented that the country would have been better off if Strom Thurmond, a 1948 presidential candidate who campaigned on a racist platform, had won the presidency. Although the remarks went unchallenged when they were spoken and were largely unremarked upon by the mainstream media, the situation quickly changed. Critics viewed Lott's remarks as a coded racist appeal to conservative Southern Whites—an appeal that Southern Whites could decipher but that others would not (see Ashbee, 2003; Mendelberg, 2001). Over the ensuing days, people who noticed Lott's apparent endorsement of racism contributed to an Internet-based media campaign to draw outrage and attention to what Lott had said (e.g., weblogs, message boards, traditional news outlets; see Haas, 2005). The anger and attention that were drawn to Lott's remarks eventually cost him his Senate leadership position.

It may be that communication helps to mobilize when it allows people to discover and construct mutually shared experience (Hardin & Higgins, 1996). Perhaps such constructions appear more real or pressing to the extent that the outgroup perceives the relevant reality, whereas the ingroup does not. This argument echoes anecdotal accounts of consciousness-raising groups during the American feminist movement of the 1960s and 1970s. Mackinnon (1989) argued that through verbal discussions of their experiences, the women's inchoate, disorganized experiences as subordinated women were crystallized into a mutually recognizable collective identity, laying the groundwork for social movement on behalf of this identity. Relating back to the present studies, such a situation

may occur when members of the ingroup doubt the existence of prejudice, whereas members of the outgroup acknowledge it exists. By communicating and taking others' perceptions as given, people discover a new common ground on which to act (Clark & Brennan, 1991).

### **When Communicators Do not Account for the Context**

In Study 3, communicators generally arrived at the same pattern as thinkers when they were instructed to communicate with an audience who was unfamiliar with the social context. This implies that people who believe they are "spreading the news" rather than communicating about a given news story may be capable of conveying the influence of their social context to new audiences. This insight helps relate the present research to research on cultural influences on news reporting. Such work found that reporters describing a social injustice (i.e., a suspected homicide) tended to assimilate their level of condemnation for the accused in line with dominant cultural influences in their geographic region (D. Cohen & Nisbett, 1997). That is, compared with their Northern U.S. counterparts, Southern reporters were more tolerant of violence in the name of protecting one's honor, a pattern that was in line with Southern culture's relative emphasis on matters of honor. The results of the naïve audience condition in Study 3 are in line with this pattern, in which communication resulted in assimilation toward contextual influences in the immediate social context (cf. Martin, 1986).

An unanswered question for future research is to what extent members of groups who engage in acts of prejudice would engage in communicative inferences. For one, the psychology of witnessing prejudice against an outgroup differs from when prejudice is directed against an ingroup. Research has shown that Whites tend to assimilate toward the prejudice perceptions of others, regardless of these others' race (Blanchard et al., 1994). Groups who perpetrate the acts of suspected prejudice against others are likely to hold a high-power mindset (see Richeson & Ambady, 2003) and, as noted above, might therefore be less sensitive to the communicative context (Bless & Schwarz, 2010; Gruenfeld et al., 2003). Moreover, the psychological changes caused by moving up in status tend to be weaker than the psychological changes associated with being demoted in status (see Prislin & Christensen, 2002; Prislin, Limbert, & Bauer, 2000). Such evidence points to potentially significant asymmetries of the effects of communication. It could be that targets of the prejudice adjust their perceptions and reactions as a function of communication, whereas the perpetrating groups do not (or do so to a lesser degree). This asymmetry might take on different implications as a function of the different scenarios described above. For instance, in some circumstances, a lack of communicative sensitivity may be advantageous to the continued dominance of high-power groups. Following Hurricane Katrina, Whites who communicated might not have contrasted away from their initial perceptions that race played no role in the U.S. government response to the victims. That is, communicators who are in powerful or high-status positions might maintain relatively low perceptions of prejudice.

## Conclusion

What happens to judgments of prejudice when people engage in the fundamentally social act of communicating their experiences with prejudice? Much research within social psychology has developed an extensive analysis of how people silently judge and process communications produced by others, while often overlooking how they might subsequently use this very information in their own social communications. The present research merely asked people to “write” instead of “think” about their experiences, and this distinction systematically altered how people reported experiencing prejudice against the ingroup. The results imply that the act of communicating may change how others influence the self and how the self influences others. As communication occurs on a mass scale, the give and take among transmitters and receivers of social influence may evolve into discernable patterns of social and attitudinal movement around an issue. As access to information technology (e.g., Internet, mobile phones) is growing within low-power, interdependent cultures around the world (see International Telecommunications Union, 2010), the study of how people categorize and communicate in the face of prejudice can foster understanding of social movements and how they develop in contemporary society.

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