# Battle of the Sexes: Gender Stereotype Confirmation and Reactance in Negotiations

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The authors examined how gender stereotypes affect negotiation performance. Men outperformed women when the negotiation was perceived as diagnostic of ability (Experiment 1) or the negotiation was linked to gender-specific traits (Experiment 2), suggesting the threat of negative stereotype confirmation hurt women's performance relative to men. The authors hypothesized that men and women confirm gender stereotypes when they are activated implicitly, but when stereotypes are explicitly activated, people exhibit stereotype reactance, or the tendency to behave in a manner inconsistent with a stereotype. Experiment 3 confirmed this hypothesis. In Experiment 4, the authors examined the cognitive processes involved in stereotype reactance and the conditions under which cooperative behaviors between men and women can be promoted at the bargaining table (by activating a shared identity that transcends gender).

Negotiation skills are essential for success in all areas of life (Bazerman, 1998). Because of the competitive nature of negotiations, one of the most commonly asked questions is "How well do men and women do at the bargaining table relative to one another?" This question usually arises from an implicit theory that women are inherently more cooperative and collaborative than men, whereas men are more assertive and demanding than women. It is these widely held gender stereotypes, regardless of their accuracy, that lead some people to speculate that men fare better than women in negotiations. Empirical evidence is consistent with the typical layperson's perception. In two recent meta-analyses examining gender differences in negotiations (Stuhlmacher & Walters, 1999; Walters, Stuhlmacher, & Meyer, 1998), men were indeed shown to behave more competitively and reap better outcomes than women did. Whereas these studies establish that a gender gap does indeed exist, the source of this gap remains elusive. The question of why men and women perform differently at the bargaining table remains a matter of wide speculation, as research studies that address this question have not been very conclusive to date and the study of "sex differences" does not seem politically nor intellectually correct. We seek to fill this void by studying the processes that underlie gender differences at the bargaining table.

In this article, we report four experimental investigations of men and women at the bargaining table. We were guided by two major research questions: (a) Under what conditions do men versus women prevail in claiming the most resources at the bargaining table? and (b) Under what conditions are mixed-gender negotiators able to seek mutually beneficial agreements? In Experiment 1, we examined how the perceived diagnosticity of a negotiation can create stereotype threat in women. In Experiment 2, we examined how activating gender stereotypes can create a male advantage at the bargaining table. In Experiment 3, we examined how the mode by which stereotypes are activated (implicitly versus explicitly) determines whether women versus men are advantaged in negotiations. In Experiment 4, we examined the cognitive processes involved in stereotype reactance and also how emphasizing shared identities can lead to greater equality of outcomes at the bargaining table between men and women. We begin by examining the literature on gender and negotiations, and then we introduce a model of stereotype confirmation, derived in part from Steele's (1997) stereotype threat theory, to test our key hypotheses.

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## Gender and Negotiations

Examinations of gender effects in negotiations have focused on skills (Stevens, Bavetta, & Gist, 1993), strategies (Kaman & Hartel, 1994), aspirations (Major, McFarlin, & Gagnon, 1984), preferences for equity (King & Hinson, 1994), and rewards for negotiating (Gerhart & Rynes, 1991). Evidence points to blatant discrimination in offers to male versus female negotiators (Ayres & Siegelman, 1995), as well as the accumulation of negotiation differences over the course of one's career (Wood, Corcoran, &

Courant, 1993). Pruitt, Carnevale, Forcey, and Van Slyck (1986) examined differences in contentious bargaining tactics depending on whether a constituent to whom one was accountable was male or female. Surveillance by a male constituent led to more contentious bargaining strategies and less equality of outcomes than surveillance by a female constituent. Pruitt et al. interpreted these findings as evidence that negotiators acted in accordance with sex-role stereotypes that were consistent with how they thought their constituent expected them to behave. They argued that negotiators assumed that male constituents who were watching them negotiate expected more contentious behaviors than did female constituents, and so negotiators varied their behavior accordingly. However, stereotypes were neither manipulated nor measured. On a broader level, successful managerial stereotypes have been linked to male characteristics (Heilman, Block, Martell, & Simon, 1989; Schein, 1973, 1975). The current investigation examines the existence of a gender-performance link in negotiations.

# Gender Stereotype Confirmation in Negotiation

Raiffa (1982) identified the following traits as characterizing effective negotiators: assertive, rational, decisive, constructive, and intelligent. In contrast, ineffective negotiators are regarded to be weak, emotional, irrational, and too conciliatory (Lax & Sebenius, 1986). Many of the traits that characterize effective negotiators are perceived to be masculine in nature, and many of the traits of ineffective negotiators are perceived to be feminine (Williams & Best, 1982).

We hypothesize that men and women perceive a correlation, or mapping, between negotiator stereotypes and classic gender stereotypes. Evidence that modern sexism is subtle and covert (Benokraitis & Feagin, 1986; Swim, Aikin, Hall, & Hunter, 1995) leads us to believe that this mapping process is not necessarily explicit, but rather implicit (Greenwald & Banaji, 1995). Further, this mapping process serves to generate a causal mental model in terms of how gender affects negotiation performance. The hypothesized process is similar to what Hamilton and Rose (1980) demonstrated with illusory correlation. In these studies, they observed a cognitive bias in how people process stereotype-consistent and -inconsistent traits regarding occupations. In fact, the perceived correlation between traits and occupations is more congruent with existing stereotypic beliefs than is the actual correlation (Hamilton & Rose, 1980).

To determine the effect of stereotypes on the ability of men and women to claim resources, the interpersonal nature of negotiation requires that we consider the effect of stereotype activation for each gender separately. With this in mind, a key characteristic of mixed gender negotiations is the recognition that the negative gender stereotype vis-à-vis women in negotiation has a complementary component: Men enjoy what we call a *positive stereotype advantage* in the negotiation domain. Below we elaborate on our hypotheses regarding stereotype activation for each gender in negotiations.

# The Effect of Stereotype Activation on Women

In a recent series of investigations, Steele (1997) tested a theory of stereotype threat. According to Steele, *stereotype threat* is concern and anxiety over confirming, as self-characteristic, a neg-

ative stereotype about one's group. In fact, the mere knowledge that a negative stereotype exists about a social group (such as intellectual ability for African American individuals or math performance for women) can negatively affect the performance of members of those groups on stereotype-relevant tasks. At a cognitive level, stereotypical attributes are connected to a person's behavioral repertoire, which is why the mere mention of a stereotype can lead to the enactment of stereotype-consistent behaviors (for a review, see Bargh, 1997). Further, it is not necessary that the person believe the stereotype for their behavior to be negatively affected. In fact the most advanced members of groups (e.g., female math majors, African Americans at elite schools) tend to be the most adversely affected in their performances by stereotype threat (Steele, 1997). Concern over confirming the stereotype produces anxiety and reduces performance, and, thus, the person unwittingly confirms the stereotype.

We predicted that when women are made implicitly aware of traditional gender stereotypes, they behave in ways to confirm the female stereotype during a negotiation. We expect that women are reminded of gender stereotypes and experience a heightened concern for confirming the stereotype when they highly identify with a particular domain and perceive a task as diagnostic of their ability in this domain. It is under these conditions that women are most susceptible to stereotype threat (Steele, 1997). Simply, we expected that, by being primed about the negative gender stereotype, women may suffer from negative arousal and fear of confirming the stereotype, which hinders their performance at the negotiation task. A decrease in performance is expected to occur when the relationship between gender and negotiation success has been subtly primed because a woman's cognitive-behavioral defense systems have not been adequately summoned to react against it, and instead, ineffective behaviors are primed that do not serve her well at the bargaining table.

# The Effect of Stereotype Activation on Men

We expect a negative female response to a gender stereotype prime to be complemented with men confirming the male stereotype. Just as negative stereotypes can impair performance, stereotypes can increase performance (Steele, 1999). For instance, Spencer, Steele, and Quinn (1999) recently examined the effect of a pervasive stereotype—that women are worse than men at solving difficult math problems (Benbow & Stanley, 1980)—on math performance. Men outperformed women only when they were told that gender differences had been shown to exist (with no mention of gender stereotypes). Moreover, men who were told that gender differences exist performed better than men who were told no gender differences exist. The results of this experiment suggest that positive stereotypes can boost performance.

Along similar lines, Stone, Lynch, Sjomeling, and Darley (1999) found that performance can be influenced by framing a task as relevant to either a positive or a negative stereotype about one's social group. Caucasians are presumed to be superior to African Americans on intellectual tasks, but inferior on athletic tasks. Stone et al. framed performance on a golf task to be dependent on either intellectual attributes or on athletic attributes. When framed as an intellectual task, Caucasians outperformed African Americans. When framed as an athletic task, African Americans outperformed Caucasians. Like men in the Spencer et al. (1999)

experiment, positive stereotypes can have a facilitative effect on performance.

Following this logic, we expected that when a man is primed with information that the stereotype for his gender can be an advantage in an important situation, this may lead him to perform better than he otherwise would. Stereotyping has been linked to power (Fiske, 1993), such that high-power individuals are more likely to hold stereotyped views of low-power individuals than vice versa. Building on this finding, we expected men to perceive greater power in negotiations when a gender stereotype has been primed than when it has not. We expected that men are aware of the same gender stereotypes as women, and this awareness is heightened when a task is perceived as diagnostic of ability. When reminded of the diagnosticity of a negotiation, that it reveals inherent ability differences, men are expected to experience a boost in their perceived ability to succeed. Armed with this surplus of confidence, men should be more capable of asserting their power in the negotiation, and we expected that this would ultimately serve men's interests in terms of bargaining effectiveness.

#### Pretest

To test the above hypotheses, we first conducted a preliminary investigation to assess naive theories about how men and women perform at the bargaining table. The purpose of this pretest was to assess whether gender stereotypes are viewed as relevant to negotiations for management students. Although there is already research evidence that traits related to negotiation success have gender associations (Williams & Best, 1982), we were interested in determining the extent to which our participant population willingly endorsed these gender associations. A total of 50 master of business administration (MBA) students (39 male and 11 female) wrote individual essays regarding "who has the distributive advantage in negotiations—men or women." In the essays, participants were asked to justify their position.

To assess respondents' naive theories, we had two coders indicate whether the essay writer took a position supporting men's superiority over women (in negotiations), women's superiority over men, or indicated that neither gender had a clear advantage over the other. As a measure of interrater agreement of coders' initial responses, we computed Cohen's kappa at .94. Although interrater agreement was sufficiently high initially, after discussion coders were able to agree on all essay categorizations. Coders then categorized the reasons provided by essay writers in support of their stance. Coders agreed on all categorizations. We then tallied the open-ended reasons that respondents provided for why men have the advantage over women, and also why women have the advantage over men. Results indicate that significant differences existed in who had the perceived advantage,  $\chi^2(2, N = 50) = 5.92$ , p = .05. Respondents believed that men will come out ahead in terms of bargaining advantage (48%) to a greater extent than women (32%) or neither (20%). These reasons are summarized in the Appendix. Included in the Appendix is the frequency with which each reason was given. As shown, a substantial number of the reasons provided correspond to universal gender stereotypes (Williams & Best, 1982). The causal factors cited for men having an advantage related to their assertiveness, strength, and ability to remain firm against compromise. In contrast, women were characterized as emotional, relationship oriented, accommodating, and attuned to feelings, all of which were consistent with typical gender stereotypes.

## Experiment 1

Having established the existence of gender stereotypes in the MBA students' mental models of negotiation, we were ready to proceed with our investigation of stereotype threat in actual face-to-face negotiations. In our first experiment, we examined how men and women who highly identify with negotiations are affected by the perceived diagnosticity of a negotiation in revealing their ability. For all participants, we emphasized the importance of negotiation skills and challenged them to put forth a strong effort on the task. Our hypothesis was that women who negotiated under conditions in which the negotiation was perceived as highly diagnostic of important abilities would suffer from stereotype threat, meaning that their performance would suffer. Following the work of Spencer et al. (1999) and Stone et al. (1999), we also expected that men's performance would improve under diagnostic conditions relative to the baseline.

# Method

Overview and design. The experiment involved two conditions: a diagnostic condition and a nondiagnostic condition. The negotiation task involved the sale of a biotechnology plant. The negotiation issue was sale price. For both conditions, we counterbalanced role assignments (buyer or seller)

Participants. Participants were 36 MBA students enrolled in a course in negotiations. The negotiation task took place as part of a classroom exercise during the first day of class of a 10-week course. Each dyad was composed of a woman and a man.

Procedure. Participants were given a cover sheet with general negotiation instructions, along with specific role information. Participants were given 15 min to read their role instructions and prepare. Before beginning the negotiation and interacting with their negotiating partner, participants indicated what portion of the negotiation "pie" they thought they would get relative to their negotiating partner on an 11-point scale, ranging from 0% to 100%. During the negotiation, participants were prohibited from physically exchanging role information with one another. Dyads were given up to 30 min to negotiate. As a measure of assertiveness in the negotiation, after the negotiation we asked participants to indicate what their opening offer had been in the negotiation.

Negotiation task. We used a standard negotiation exercise that involved the potential purchase of a biotechnology plant between a buyer and a seller. The task allowed for a quantitative assessment of negotiation performance, as determined by the sole issue of selling price. The bargaining zone spanned from \$17.5 million to \$26 million. The negotiation instructions clearly indicated that the objective of participants was to maximize their own profit, whether buyer or seller. The negotiation concluded when both parties came to a mutual agreement on price, or when time was called.

Experimental manipulation. Embedded in the general instructions was the manipulation of negotiation diagnosticity. We based our manipulation on those of Steele and Aronson (1995). Participants in the diagnostic condition read the following:

This negotiation comes first in the course because it serves as a helpful diagnostic tool for students to assess their negotiating skills at

<sup>&</sup>lt;sup>1</sup> Opening offers largely determine the bargaining zone from which an agreement will ultimately be reached (Thompson, 1998).

the beginning of the course. We have selected this particular negotiation for you to complete because it is an extremely challenging one for novice negotiators. As such, it is an accurate gauge of your genuine negotiating abilities and limitations. In the past, we have found that how untrained students do on this negotiation is particularly diagnostic of their performance in negotiation courses and real-world negotiations. Because this negotiation is diagnostic of your ability, you should use this negotiation as a learning tool.

Participants in the nondiagnostic condition read the following:

We have selected this particular negotiation for you to complete because it allows novice negotiators to familiarize themselves with the core concepts involved in negotiations. As such, it is not an accurate gauge of your genuine negotiating abilities and limitations. In the past, we have found that how untrained students do on this negotiation is not particularly diagnostic of their performance in negotiation courses and real-world negotiations. Because this negotiation is not diagnostic of your ability, you should use this negotiation as a learning tool.

## Results

Performance expectations. As hypothesized, a negotiation that was perceived as highly diagnostic of ability affected the performance expectations of male and female negotiators differently. We conducted an analysis of variance (ANOVA) on the performance expectations for individual negotiators, including gender and diagnosticity condition as between-subjects factors. Consistent with our hypotheses, the two-way interaction between gender and negotiation diagnosticity was significant, F(1, 32) = 4.48, p < .05. As shown in Table 1, men expected to get a greater portion of the resources for themselves than did women in the diagnostic condition, F(1, 32) = 8.94, p < .01; the amount of resources that men and women expected to get did not statistically differ in the nondiagnostic condition, F(1, 32) = 0.00, ns.

Opening offer. Perceived diagnosticity affected the extremity of opening offers made by men and women. To analyze these data, we first collapsed across negotiator role by computing a standardized z score of reported opening offers.<sup>2</sup> This score was constructed such that higher values indicated more extreme opening offers (relatively low values for buyers and high values for sellers). We then examined the two-way interaction between gender and negotiation diagnosticity with an ANOVA, which was statistically

Table 1
Experiment 1: Means and Standard Deviations of Performance
Expectations and Opening Offers by Negotiation
Diagnosticity Condition and Gender

Negotiation diagnosticity	Mal	le	Female	
	М	SD	М	SD
Performance expectation <sup>a</sup>				
Diagnostic	57.78 <sup>a</sup>	8.33	46.11 <sup>b</sup>	9.93
Nondiagnostic	54.44 <sup>a</sup>	5.27	54,44°	8.82
Opening offer				
Diagnostic	$0.98^{a}$	0.77	$-0.19^{b}$	0.80
Nondiagnostic	0.45 <sup>ab</sup>	0.57	0.56 <sup>ab</sup>	0.97

Note. Means with different subscripts for each measure differ from each other at p < .05.

significant, F(1, 23) = 4.20, p < .05. As predicted by our stereotype confirmation hypothesis, women made less extreme opening offers than men did in the diagnostic condition, F(1, 23) = 7.24, p < .01; the difference between men and women was not statistically significant in the nondiagnostic condition, F < 1, ns (see Table 1).

Negotiation performance. The key outcome measure was sale price. The unit of analysis for this measure was the dyad. We first collapsed across role assignments (female seller/male buyer vs. female buyer/male seller) by creating a standardized z score in which higher values indicate better performance for the male negotiator (higher price as a seller and lower price as a buyer). To analyze sale price, we conducted an ANOVA on the standardized measure, including diagnosticity condition as the sole factor. As predicted by the stereotype confirmation hypothesis, the standardized sale price was significantly higher in the diagnostic condition (M = 0.75) than in the nondiagnostic condition (M = -0.14), F(1,16) = 4.78, p < .05. We next examined each condition to determine whether men or women had a decisive advantage. Male negotiator's superior performance to female negotiators was significant in the diagnostic condition, t(14) = 2.48, p < .05. In the nondiagnostic condition, the difference between female and male negotiators did not significantly differ from zero, t(14) = -0.59, ns.

Relationship between performance expectations and negotiation performance. We next sought to better determine the relationship between performance expectations constructed before the negotiation and subsequent negotiation performance. To do so, we computed a difference score of the prenegotiation expectation measure so that it represented the expectation differences between men and women in the dyad. When this variable was included as a covariate in an analysis of covariance (ANCOVA) of standardized outcome score, diagnosticity no longer had a significant effect on performance, F(1, 15) = 2.11, ns. Using the corrected procedure originally specified in Kenny, Kashy, and Bolger (1998), we next tested whether this reduction was sufficiently large to be significant. Although including the covariate reduced the effect of negotiation diagnosticity on the agreements reached between men and women, it did not do so significantly, z = 1.10, ns.

#### Discussion

The purpose of this experiment was to examine stereotype threat processes when men and women negotiate with each other. To test Steele's (1997) theory in the negotiation context, we engaged participants who highly identified with the domain: students enrolled in a highly competitive MBA program at a top business school in which the negotiations course was the most popular elective in the school. On the basis of Steele's (1997) theory of stereotype threat, we expected a gender difference in negotiation performance to emerge only under threatening conditions—when the negotiation was perceived as highly diagnostic of ability and gender stereotypes were linked to negotiation success. Consistent with this hypothesis, men and women did not differ when the negotiation was billed as merely a learning tool that was not diagnostic of ability, but significant differences between the sexes did emerge when the negotiation was perceived to reflect ability and future success.

<sup>&</sup>lt;sup>a</sup> Values range from 0% to 100%.

<sup>&</sup>lt;sup>2</sup> Nine participants failed to report their opening offers.

To examine the underlying processes leading to this performance differential, we asked participants to indicate their performance expectations after being exposed to the diagnosticity manipulation, but before beginning the negotiation. As expected, the mere mention of the diagnosticity of the negotiation affected how well men and women thought they would do relative to one another. In other words, women in the diagnostic condition thought they would do worse than men would. In contrast, there was a trend for men to expect to do even better under diagnostic conditions than nondiagnostic conditions. This pattern also emerged on the extremity of the first offers that the negotiators made. Extremity of first offers is often predictive of actual outcomes in distributive negotiations and has been linked to performance expectations (Benton, Kelley, & Liebling, 1972; Chertkoff & Conley, 1967). Expecting to get less (or more) of the pie can lead to less (or more) extreme first offers and ultimately to worse (or better) outcomes. Merely mentioning that a task with genderlinked expectations was diagnostic of ability, without mentioning social categories or even stereotypical traits, affected both expectations for performance and actual negotiation outcomes.

We provide some evidence that negotiators' expectations were associated with the observed performance differences that ultimately confirmed gender stereotypes (Snyder & Stukas, 1999; Snyder, Tanke, & Berscheid, 1977). That is, when controlling for the effect of expectations, negotiation diagnosticity no longer has a significant effect on performance. The effect of the diagnosticity manipulation on expectations and opening offers is consistent with the general premise of Steele's (1997) theory of stereotype threat. That is, making a performance situation in which negative stereotypes are known to be diagnostic of ability leads the stereotyped targets to fear confirming the stereotype, which increases anxiety and lowers performance expectations and ultimately leads to decrements in performance. The pattern of data supports our hypothesis that making the negotiation diagnostic of ability not only produces stereotype threat in women but also creates a positive stereotype advantage for men.

In Experiment 2, we extend our analysis in three key ways. First, rather than simply mentioning that a negotiation is diagnostic of ability, we implicitly prime gender stereotypes to extend our understanding of their impact at the bargaining table. We also include same-gender dyads to test the hypothesis that these effects result from the activation of gender stereotypes and are unique to mixed-gender situations. Finally, we limit the activation of stereotypes to the individual negotiator, as opposed to the dyad, to better isolate the effect it has on male and female bargainers.

# Experiment 2

Because many of the traits associated with effective negotiators (rational, assertive, and having a high regard for their own interests) are stereotypically masculine and many of the traits associated with ineffective negotiators (emotional, conciliatory, and accommodating) are stereotypically feminine, we expected that implicitly priming these stereotypes would impair women's performance and improve men's performance. We also included a condition in which we did not prime gender stereotypes. Over and above any effect of perceived diagnosticity on performance, we were interested in the effect of stereotype activation on negotiation performance. In combination, we expected a greater disparity in

outcomes for men and women when the gender stereotype had been activated than when it had not.

To isolate the effect of stereotype activation on each gender, in this study we activated the stereotype in the mind of one negotiator only. In this way, we can more clearly identify the impact of stereotype activation in the mind of each negotiator, as opposed to the interactive behavior of both negotiators. We designed a condition in which each dyad member was given distinct information that either implicitly primed the gender stereotype or did not. If the effect of stereotype activation is limited to women, as suggested by the findings from Experiment 1, then the gender gap should not be magnified when only men are primed with the stereotype.

We included same-gender dyads in addition to the mixed-gender dyads as a control. We expected that any advantages or disadvantages experienced by gender stereotype activation would be canceled out in same-gender negotiations because presumably each party is equally advantaged or disadvantaged in the same-gender case. The hypothesized advantage of men in the stereotype activation condition is only expected to occur relative to women.

To summarize, our key predictions were that (a) male negotiators perform better when their negotiating partner is a woman compared with a man, (b) men's performance improves when they experience stereotype activation, (c) women's performance suffers when they experience stereotype activation, and (d) the effect of stereotype activation emerges in the mixed-gender case, but not the same-gender condition.

#### Method

Overview. We included two factors in our experimental design: dyad gender composition (female/male vs. male/male) and stereotype activation (one negotiator has stereotype activated vs. control), which were completely crossed. One additional condition resulted from the case in which only one negotiator received the stereotype activation and the dyad was composed of a woman and a man, because we varied which negotiator received the activation. For each independent variable, we counterbalanced role assignments (buyer vs. seller).

Participants. Participants were 238 full-time and evening MBA students at a business school currently enrolled in a course in negotiations. There were 66 women and 172 men who participated, composing 119 dyads. Six dyads failed to negotiate an agreement within the specified bargaining zone and were excluded from the analyses, leaving 113 dyads. The experiment was conducted in approximately the 4th week of a 10-week academic term.

Procedure. The experimental procedure consisted of three phases. During Phase 1, participants were each given a confidential packet of materials describing the general nature of the negotiation and the role they would play in the exercise. They were prohibited from physically exchanging information with anyone else, although they were free to say anything they wished during negotiations. At the time that participants prepared, they were not told who their partner would be for the actual negotiation. The packet of materials also contained the key experimental manipulations, described in detail below.

Phase 2 was the actual face-to-face negotiation. Participants were informed immediately prior to the negotiation who they would negotiate with and then assigned a private meeting place to conduct the negotiation (which could last up to 45 min). The negotiation instructions provided to participants in all conditions clearly indicated that the objective of participants was to maximize their own profit, whether buyer or seller. The negotiation concluded when both parties came to a mutual agreement regarding the price, or when time was called.

Phase 3 involved a postnegotiation assessment. After the task, participants completed an individual assessment of the negotiation process and outcomes. This analysis involved assessing their negotiating ability relative to three comparison groups: their partner, other people of the same gender, and the typical MBA student. Posttask questions included the following comparisons that were made on 11-point scales, with endpoints labeled 0% and 100%: (a) "How well did you do in this negotiation compared to the average student in this class?" (b) "How well did you do in this negotiation compared to the average person playing in your role?" (c) "In terms of the overall pie of resources, how much did you get relative to your opponent?" (d) "How well did you do in this negotiation compared to other people of your same sex?" (e) "Rate your management skills compared to the typical student," and (f) "How successful will you be in your career compared to the typical student?"

Experimental manipulations. Basing our manipulations on those of Steele and Aronson (1995) and our first experiment, we told participants in the stereotype-activation condition that the negotiation exercise was highly diagnostic of important, managerial negotiation abilities. In addition (and unlike Experiment 1 or Steele & Aronson, 1995) participants were told that gender-relevant traits were predictive of performance (although the traits were not explicitly linked to gender). Specifically, they were told, "Highly skilled negotiators use rational principles and are assertive and demonstrate a regard for their own interests. Negotiators who display these skills tend to achieve higher outcomes than those who are emotional and accommodating in their bargaining style." That is, traits that were stereotypical of men were linked to effective negotiators, but the link to gender was done implicitly as no information about social categories was provided. Linking stereotypically male traits to effective negotiating practices was expected to provide a positive stereotype for men (Spencer et al., 1999) and to constitute stereotype threat for women. For participants in the control condition, we did not prime the gender stereotype, and we emphasized that the negotiation was simply illustrative of classic buyer-seller bargaining. In both conditions, participants were urged to put forth a strong effort on the task. Following these task instructions, participants reviewed their role information and then began negotiating.

Negotiation task. Participants engaged in a negotiation simulation that involved the sale of a television show from a producer to a local television station. The main negotiation issue was sale price. This issue was purely distributive; that is, the two parties had completely opposite preferences—the buyer preferred a lower price than the seller.<sup>3</sup> Each negotiator was given a reservation price for their role, or the lowest price that the seller would accept (\$35,000) and the highest price that the buyer would offer (\$60,000).

# Results

Negotiation performance. As in Experiment 1, the key outcome measure was sale price. The unit of analysis for this measure was the dyad. We first collapsed across role assignments (female seller/male buyer vs. female buyer/male seller) by creating a standardized z score in which higher values indicate better performance for the male negotiator (higher price as a seller and lower price as a buyer). For same-gender dyads, higher values indicate better performance for sellers than for buyers. To analyze sale price, we conducted an ANOVA on the standardized measure, including stereotype activation and dyad gender composition as between-groups factors. The mean negotiated agreement within each condition is presented in Table 2. As predicted by our hypothesis that men perform better when negotiating with a women (M = 0.36) versus another man (M = -0.04), the main effect for dyad gender composition was statistically significant, F(1, 109) = 4.14, p < .05. Our remaining hypotheses implied a Stereotype Activation × Dyad Gender Composition interaction.

Table 2
Experiment 2: Means and Standard Deviations of Standardized
Negotiation Outcome by Stereotype Activationand Dyad Gender
Composition

Stereotype activation	Male/female		Male/male	
	M	SD	М	SD
One negotiator	0.36	1.02	-0.02	0.93
Male	0.74	0.81		
Female	0.17	1.07		
Neither negotiator	0.37	0.94	-0.06	0.96
Collapsed	0.36	0.99	-0.04	0.93

Note. Standardized values were computed such that higher values within male/female dyads represent better performance for men relative to women. Within male/male dyads, buyer's scores were subtracted from seller's scores.

Contrary to the hypothesis that stereotype activation would improve performance for men and impair performance for women in mixed-gender dyads, the two-way interaction was not statistically significant, F < 1, ns.

An examination of the means in the mixed-gender dyads reveals that outcomes favored men when men experienced stereotype activation (consistent with our hypothesis), but outcomes did not move in the direction of men when women experienced stereotype activation (contrary to our hypothesis). When these two values were collapsed to conduct the factorial analysis, the stereotype activation in the male/female dyads appeared identical to the no-activation dyads. To determine whether men in the mixed-gender dyads did indeed benefit when stereotypes were activated for them relative to when they did not experience a stereotype activation, we conducted a planned orthogonal contrast, which revealed that men's superior performance in the stereotype activation condition was marginal, F(1, 63) = 3.53, p = .07.

Our prediction that the effect of stereotype activation would be limited to the mixed-gender case also implied a two-way interaction (reported above as nonsignificant), but because women did not experience a performance decrement after stereotype activation, our ability to test the effect of stereotype activation on men across the two dyad gender compositions was hindered with a factorial analysis. With this in mind, we relied on a planned orthogonal contrast to compare the outcomes in the male stereotype activation conditions across the two dyad gender compositions. The benefit of stereotype activation for men was significantly greater when their negotiating partner was a women (M = 0.74) than when the partner was a man (M = -0.02), F(1, 109) = 6.50, p < .01. Because the procedure for creating z scores was not perfectly analogous across the mixed-gender and same-gender dyads (relative performance of genders versus relative performance of roles), we computed a new standardized z score that took into account the stereotype activation of the dyad. That is, for both mixed and same-gender dyads, higher scores indicate better performance for

<sup>&</sup>lt;sup>3</sup> The task involved two additional issues that were integrative in nature. That is, the two parties had opposing priorities on these issues. Because our model of stereotype activation concerns the claiming of distributive issues, we exclude these issues from our analysis.

the negotiator for whom the stereotype had been activated than for the negotiator for whom it had not been activated. We then examined the difference in scores when men experienced stereotype activation across mixed-gender and same-gender dyads. Consistent with the previous analysis, men benefited from the activation of the stereotype to a greater extent when their partner was a woman (M = 0.74) than when the partner was another man (M = -0.26), F(1, 44) = 14.14, p < .001.

Postnegotiation assessment. The dyad was the unit of analysis for these assessments. To examine differences in responses between male and female negotiators in the mixed-gender dyads, we created a difference score representing the male response minus the female response. For same-gender dyads, we also created a difference score, representing the buyer's response minus the seller's response. We hypothesized that the pattern of effects expected in terms of negotiation outcomes would generalize to confidence in one's ability as a negotiator and management student. We tested our hypotheses using this difference score as the dependent variable. To analyze negotiator confidence, we combined the responses into one confidence scale,  $\alpha = .98$ . We then conducted an ANOVA on negotiator confidence, with dyad gender composition and stereotype activation as between-groups factors. Neither the main effect for dyad composition, F(1, 97) = 1.84, ns, nor the two-way interaction were significant, F < 1, ns. As with the negotiation outcomes, though, we examined the confidence difference between men and women in the mixed-gender dyads when men experienced stereotype activation (M = 1.02) compared with when they did not (M = 0.03) with a planned orthogonal contrast. Consistent with their superior performance in this condition, men reported feeling more confident in their ability after stereotypes were activated relative to when they were not, F(1,67) = 4.04, p < .05.

# Discussion

Across all conditions, men claimed a larger share of the pie when negotiating against a woman; further, men were better off financially when negotiating against a woman than against a man. In support of our predictions, men performed better when traditional gender stereotypes were implicitly activated and they negotiated against a woman but not against a man. Consistent with research by Spencer et al. (1999) and Stone et al. (1999), activating positive stereotypes enhances performance for members of that group. Stereotype activation had an effect on men over and above making the negotiation diagnostic of ability. Contrary to our predictions, the ability of women to effectively claim resources did not suffer under stereotype activation.

There are several possible explanations for why women's ability to claim resources was unaffected by stereotype activation, but men's performance was affected. We hypothesized that men in the stereotype-activation condition who were negotiating with a woman would be empowered from the advantageous positive stereotype identity that they derived. This benefit was expected to manifest greater confidence in their ability relative to women. Armed with this confidence, men were expected to demand more for themselves at the bargaining table. Consistent with this hypothesis, men reported being more confident than women did when the stereotype had been activated compared with when it had not. An alternative explanation for the observed differences be-

tween men and women derives from the motivations that may have driven their expectations and performance. That is, perhaps men were more concerned with appearing strong, and therefore increased their level of assertiveness, with the activation of masculine traits. In contrast, women might not have identified with the traits, and therefore were unaffected by their activation.

In Experiment 1, the diagnosticity manipulation affected the performance expectations and opening offers of women: They experienced manifestations of threat as defined by Steele and Aronson (1995). Why would women display evidence of threat in Experiment 1 but not in Experiment 2? Even though we made very explicit in the control condition that the negotiation was solely intended as an exercise, it is possible that women, nevertheless, regarded the negotiation to be diagnostic of their managerial skills. According to Steele's (1997) theory of stereotype threat, when individuals who belong to a negatively stereotyped social group perceive a diagnostic task, their performance suffers. Women's threshold for perceiving threat may be lower than that of men given the widely held stereotypes of women on negotiation tasks.

# Experiment 3

The central question that we explored in Experiment 3 is whether the context in which negative stereotypes are activated can actually enhance performance, as opposed to strictly hindering negotiation performance and whether the context of positive stereotype activation can hinder, rather than enhance, performance. To this end, we build on psychological reactance theory (Brehm, 1966) and the burden of positive stereotypes and expectations on performance (Baumeister & Showers, 1986; Brown & Josephs, 1999). We propose that how stereotypes are activated can negatively affect performance for members of positively stereotyped groups but positively affect performance for members of negatively stereotyped groups. In other words, we examine one circumstance under which negative stereotypes about women improve their performance in negotiations and positive stereotypes about men impair their negotiation performance. Each of these hypotheses is developed below.

# Stereotype Reactance

Psychological reactance theory (Brehm, 1966) states that when people perceive a threat to their freedom, they react by asserting their freedom more forcefully than they would otherwise. In one demonstration of psychological reactance theory, people in a parking lot who were getting into their cars were slower when they knew someone was waiting for their parking spot than when no one was waiting; this effect was magnified when the person waiting honked to speed them along (Ruback & Juieng, 1997).

Stereotype reactance in women. We theorized that psychological reactance also operates when people perceive limitations to their ability to perform. Negative stereotypes held by others are one obvious limitation that could affect performance for members of social groups (e.g., women and African Americans). We expected reactance to occur when an individual was explicitly told that his or her social category was a liability for an important task, such as a negotiation. We hypothesized that, when women are explicitly threatened (i.e., made aware of the correspondence between the stereotypes of women and ineffective negotiators), they

react by engaging in behaviors that are counter to those prescribed by the stereotype. We call this *stereotype reactance* and distinguish it from stereotype confirmation.

The key difference in terms of whether women are expected to confirm or react against a gender stereotype in negotiations is whether the stereotype is activated implicitly (below a perceivers' conscious awareness) or explicitly (obvious to the perceiver; Greenwald & Banaji, 1995). The implicit priming of knowledge structures produces assimilation effects, or judgments and behaviors that become more consistent with the activated knowledge structure than they would otherwise (Higgins, Rholes, & Jones, 1977; Moskowitz & Skurnik, 1999). For example, people primed with the stereotype of "hooligans" subsequently performed less well on a general knowledge scale compared with when they were primed with the stereotype of university professors (Dijksterhuis & van Knippenberg, 1998). Assimilation effects depend on participants not noticing a connection between the priming task and the judgment task (Martin, 1986; Moskowitz & Skurnik, 1999).

Conversely, explicit priming, which occurs when a person's attention is blatantly drawn to the activated knowledge structure (Strack, Schwarz, Bless, Kübler, & Wänke, 1993), produces a contrast effect (or reactance), whereby judgments and behaviors become less consistent with the activated knowledge structure than they would otherwise. When people are blatantly and explicitly primed, they perceive the primed construct to be a biasing influence, and to correct for this undesired influence on thought and deed, they attempt to overcompensate for the biasing influence (Martin, 1986). For example, if a person reads a description about a prototypical elderly person, then the perceiver is later likely to walk more quickly down a corridor, a behavior in contrast to the elderly stereotype, than if they had not read the first description (Dijksterhuis et al., 1998), presumably because people attempt to counter the influence of the prime by dissociating their judgments and behavior from the implications of the activated knowledge structure. However, if the elderly stereotype were more subtly primed, we would expect an assimilation effect, or behaviors more consistent with the stereotype (Bargh, Chen, & Burrows, 1996).

Positive-stereotype disadvantage in men. When a person is explicitly told that his or her social category provides an advantage, such as the case with men and negotiation ability, we expect that this explicit recognition of their superiority can have a detrimental effect on that person's performance—resulting in a disadvantage. This hypothesis grows out of an abundant literature on "choking under pressure" that suggests that having "the home team advantage" can actually be a disadvantage in competitive situations that are relevant to one's self-identity (Baumeister & Showers, 1986; Baumeister & Steinhilber, 1984).

Similarly, when men fear that their unexceptional math ability will be exposed in a test designed to identify the highest achievers, their performance suffers (Brown & Josephs, 1999). Thus, the positive stereotype becomes a burden, increasing anxiety and decreasing performance. Each of these psychological responses leads us to predict a seemingly ironic outcome for men—a performance decrement—when they are explicitly told that their gender grants them a certain advantage in mixed-gender negotiations.

Our predictions represent a significant departure from Steele's (1997) theory of stereotype vulnerability. When gender stereotypes are subtly and implicitly invoked, we expect stereotype confirma-

tion, but our model predicts the opposite when it comes to explicit primes. When performance is perceived by women to be highly relevant to their identity, and they are explicitly told that a social category to which they belong will hinder their ability to succeed, we expect them to dissociate from the traditional female stereotype and engage in behaviors that are less consistent with the stereotype relative to when the stereotype is implicitly activated. Likewise, men's concern for disconfirming their advantageous position may be heightened under these circumstances, leading to inferior performance.

# Method

Overview and design. The experiment involved two conditions: an implicit stereotype activation condition and an explicit stereotype activation condition. The negotiation task was identical to the task used in Experiment 1. It involved the sale of a biotechnology plant and the negotiation issue was sale price. For both conditions, we counterbalanced role assignments (buyer vs. seller).

Participants. Participants were 36 MBA students enrolled in a course in negotiations, and the negotiation task took place as part of a classroom exercise during the 1st day of class of a 10-week course. Each dyad was composed of a woman and a man.

Procedure. Participants were given a cover sheet with general negotiation instructions, along with specific role information. Participants were given 15 min to read their role instructions and prepare. During the negotiation, participants were prohibited from physically exchanging role information with one another. Dyads were given up to 30 min to negotiate. After reaching an agreement, dyads recorded the final sale price and the opening offers of both the buyer and the seller.

Experimental manipulation. Embedded in the general instructions was the manipulation of negotiation diagnosticity. We based our manipulation on those of Steele and Aronson (1995). All participants read the following:

We have selected this particular negotiation for you to complete because it is an extremely challenging one for novice negotiators. As such, it allows us to gauge your genuine negotiating abilities and limitations. After the negotiation, you will receive feedback that may be beneficial by familiarizing you with your negotiating strengths and weaknesses. Students of negotiations are often interested in the various personal factors that affect people's ability to perform in important negotiations. For example, previous research has shown that the most effective negotiators in negotiations like the one that you'll do today are rational and assertive, and demonstrate a regard for their own interests throughout the negotiation, rather than being emotional, passive, and overly accommodating.

In the explicit condition only, the following statement was added to the end of the paragraph: "Because these personality characteristics tend to vary across gender, male and female students have been shown to differ in their performance on this task."

#### Results

Opening offers. We predicted that stereotype activation would affect how assertively men and women negotiated, which would be shown by how extreme an opening offer they made. Because the first offer, whether it be from a buyer or a seller, creates an anchor for the first counteroffer (Galinsky & Mussweiler, in press), we expected these values to be related. To analyze these data, we first collapsed across opening offers of buyers and sellers by taking the mean of these two measures within the dyad. We then created a standardized z score of mean opening offers by collapsing across

negotiator role (female buyer/male seller vs. female seller/male buyer). This score was constructed such that higher values indicated more extreme opening offers for men (relatively low values in the buyer role and high values in the seller role). We then examined the extremity of opening offers across the two stereotype activation conditions. As expected, opening offers were more in favor of the male negotiator in the implicit condition (M=0.25) but more in favor of the female negotiator in the explicit condition (M=-0.82), F(1, 16)=7.46, p<.02. We next tested whether the opening offers of men and women differed within these conditions. The explicit activation of stereotypes led to opening offers that significantly favored women, t(14)=-2.94, p<.01. Outcomes did not significantly favor men when the gender association was made implicitly, t(14)=1.00, ns.

Negotiation performance. The unit of analysis was the dyad. As in Experiment 1, we first collapsed across role assignments (female seller/male buyer vs. female buyer/male seller) by creating a standardized z score in which higher values indicate better performance for the male negotiator (higher price as a seller and lower price as a buyer). We then conducted an ANOVA on the standardized measure, including stereotype activation condition as the sole between-groups factor. As predicted by the stereotype activation hypothesis, the standardized sale price was significantly higher in the implicit stereotype activation condition (M = 0.34) than in the explicit stereotype activation condition (M = -0.58), F(1, 16) = 5.26, p < .05. We next tested whether the performance of men and women differed within each condition. As hypothesized, the explicit activation of stereotypes led to agreements that significantly favored women, t(14) = -1.90, p < .05, one-tailed. Outcomes did not significantly favor men when the gender association was made implicitly, t(14) = 1.70, ns.

Relationship between opening offers and negotiation performance. We next sought to better determine the relationship between negotiators' opening offers and subsequent performance. To do so, we included the standardized mean opening offer as a covariate in an ANCOVA of standardized sale price. The covariate of first offers was significant, F(1, 15) = 14.9, p < .01, but more importantly the type of stereotype activation no longer had a significant effect on performance, F < 1, ns. We then tested whether this reduction was sufficiently large to be significant, and indeed it was, z = 2.10, p < .05. This analysis is consistent with the possibility that opening offers mediated the effect of stereotype activation on performance.

We next conducted a correlation analysis to determine whose opening offer was associated with performance within the two stereotype activation conditions. Overall, the relationship between opening offers and performance was highly significant, r=.81, p<.001. We hypothesized that explicitly activating gender stereotypes would primarily affect women—that is, women would react against them, thereby increasing how assertively they bargained and their ultimate performance. On the basis of our findings from Experiment 2, we expected men to be primarily affected by the implicit activation of gender stereotypes, thereby driving how assertively they bargained and their ultimate performance. Consistent with these hypotheses, the relationship between opening offers and performance was statistically significant for women (r=.86, p<.01) but not for men (r=-.36, ns) in the explicit activation condition; the relationship between opening offers and perfor-

mance was statistically significant for men (r = .83, p < .01) but not for women (r = .28, ns) in the implicit activation condition.

#### Discussion

This experiment demonstrates that the mode by which a stereotype is activated impacts the effect it has on individuals. It is under conditions that would seem to be the most disadvantageous—when women are explicitly reminded of negative gender expectations and stereotypes in a situation that is challenging and competitive—that outcomes lean toward women relative to their male negotiating partners. Men, on the other hand, were less successful in negotiating when their gender advantage was made explicit.

The effect of the mode of stereotype activation was evident from the moment that negotiators made their opening offers to one another. Previous research has established that the extremity of opening offers is highly related to ultimate negotiation outcomes (Benton et al., 1972; Chertkoff & Conley, 1967; Galinsky & Mussweiler, in press), and this study replicates this effect. Because opening offers generally mark the beginning of two negotiators' interactions together, it seems likely that these opening offers were almost entirely determined by each negotiator's level of mental preparedness. When negative gender stereotypes were explicitly endorsed, women entered the negotiation more aggressively than when the stereotype was implicitly endorsed—and the path analysis we conducted suggests that this level of assertiveness appears to have largely determined the agreement ultimately reached between male and female negotiators.

Within the context of negotiations, the balance of power in terms of negotiated outcomes appears to be in favor of men when gender stereotypes are subtly activated without any mention of gender. However, when these same stereotypes are activated and explicitly endorsed as pertaining to gender, negotiation agreements tended to favor the female negotiator. This finding is consistent with our argument that the implicit activation of stereotypes leads to assimilation effects, or judgments and behaviors that are more consistent with the activated knowledge structure than they would otherwise be (Higgins et al., 1977; Moskowitz & Skurnik, 1999), whereas the explicit activation of stereotypes produces a contrast effect (or reactance), whereby judgments and behaviors are less consistent with the activated knowledge structure than they would otherwise be (Strack et al., 1993).

## Experiment 4

Having demonstrated that the mode by which gender stereotypes are activated affects how men and women respond to them, we made exploring the cognitive processes leading to stereotype reactance a central goal of this experiment. Explicitly linking an important identity, such as gender, to success or failure on a task represents a threat to that identity. One reaction to such a threat is the construction of an identity that is distinct from the activated stereotype (Galinsky & Moskowitz, 2000). In women, we believe that reactance leads to disidentification from the classic (limiting) stereotype, which ultimately leads women to engage in behaviors that run counter to the stereotype. In men, we believe that the explicit activation of a positive stereotype leads to choking (Baumeister & Showers, 1986). Men who are burdened with a positive stereotype, fearing that they might fail to live up to the

stereotype, might engage in self-handicapping (Arkin, Oleson, Shaver, & Schneider, 1998) by claiming weaknesses that limit their chances for success. Self-handicapping tendencies are more common in competitive tasks that are important to one's self-concept (Self, 1990), such as a negotiation among management students.

Another purpose of this experiment was to explore whether it is possible to create greater cooperation at the bargaining table for men and women through the activation of mutually shared identities. To better understand the conditions that lead to stereotype reactance, it would seem important to create a situation that would seemingly be just as effective in improving women's performance: a situation in which women are led to believe that because of their membership in some other relevant (positive) category (e.g., college student or professional) that they would do well.

# Shared Superordinate Identities

Identifying a commonly shared identity or goal leads to more cooperative behavior among and between group members (Kramer & Brewer, 1984; Sherif, 1966). In Kramer and Brewer's study, individuals participated in a resource dilemma in which they were individually motivated to accumulate points, while simultaneously conserving the resource shared by all group members. Kramer and Brewer manipulated which identity was salient when participants were making resource allocation decisions. Some participants focused on subgroup identities (different departments or different majors within a university) and others focused on superordinate identities (such as the university as a whole). Individuals exercised more self-restraint in this task when a superordinate-group identity had been made salient prior to the task relative to when a subordinate-group identity was made salient.

Gender identities and related stereotypes are expected to lead men and women to perceive each other as members of distinct social groups. A necessary condition for reducing intergroup conflict and promoting cooperation is equal status (Sherif, Harvey, White, Hood, & Sherif, 1961). Sherif et al. proposed that providing a superordinate identity that transcends the in-group-out-group distinction is one mechanism of decreasing competition and increasing cooperation. Evidence suggests that these effects extend to the realm of negotiations. Contentious negotiations lead to more one-sided outcomes (Brett, Shapiro, & Lytle, 1998), and negotiators evaluate an opponent more negatively when they perceive their negotiating opponent as coming from an out-group than if that individual had come from an in-group (Tajfel, 1982; Thompson, 1993).

We predicted that activating a commonly shared, positive identity would encourage more cooperative behaviors and a greater focus on mutually beneficial agreements in negotiations, rather than the sole maximization of one's own gain. With greater cooperativeness, a deemphasis on power differentials across the bargaining table is expected, effectively leveling the playing field in mixed-gender negotiations. We expect the perceived difference between male and female negotiators to be minimized when a shared superordinate identity is emphasized. To test our hypotheses regarding the superordinate identity condition, we distinguish between two key negotiation skills: the ability to claim resources (also known as distributive negotiations) and the ability to expand the pie (also known as win—win or integrative negotiations). To

summarize our predictions, we did not expect a gender advantage in terms of claiming resources after a shared superordinate identity was activated, but we did expect the ability of men and women to expand the pie to be enhanced after a shared superordinate identity was activated.

#### Method

Overview and design. Our design was a  $3 \times 2$  factorial. We included three stereotype conditions: stereotype reactance, a shared superordinate identity condition, and a control condition. Half of our observations were from mixed-gender dyads; the other half were from female-female dyads.

Participants. Participants were 128 introductory psychology students who received extra course credit for their participation. Two dyads failed to reach an agreement in the specified time period, and so we excluded them from the analyses, leaving a total of 62 dyads. In addition to offering course credit in exchange for participation, we informed participants that they would be entered into a lottery at the end of the data collection period to win one of several \$50 prizes, on the basis of their performance.

Procedure. Two participants came into the laboratory where the experimenter read the general task instructions. The experimenter then held a rigged drawing to determine role assignments (in mixed-gender dyads, the female was always elected candidate). Following role assignments, participants were given their role instructions that informed them of their preferences. They were given 15 min to read their role and prepare for the negotiation. Participants read their role assignments, then completed a prenegotiation assessment designed to assess the activation of and identification with gender stereotypes. Specifically, participants in all conditions were asked to indicate what would be their biggest challenge in the negotiation, emotion, assertiveness, general understanding of key principles, or listening skills, and then indicate their biggest weakness from the following list: rationality, intuition, empathy, and team-mindedness. They were then given 30 min to negotiate.

Negotiation task. The negotiation task concerned an employment negotiation in which a job candidate and a recruiter attempted to negotiate several issues relevant to both parties (i.e., salary, benefits, vacation time, region of placement). The negotiation included eight issues in total. Preferences were induced in negotiators by assigning points to issues (greater points equaled more preferred). Negotiators could earn between -8,400 points to 13,200 points. Two issues were purely distributive, meaning that the parties' preferences were in complete opposition. Two issues were compatible, meaning that the parties' preferences were identical. The remaining issues formed two pairs of issues with integrative potential, meaning that one party cared more about Issue B. If both parties conceded on the issue they cared less about, both parties could benefit in terms of the number of points they earned. The maximum joint gain that could be reached in the negotiation was 13,200 points.

Postnegotiation assessment. Following the negotiation, participants completed a postnegotiation analysis. They reported how challenged, focused, and prepared they were during the negotiation on a 7-point scale, with endpoints of 1 (not at all) and 7 (extremely). Participants also assessed their performance relative to their negotiating opponent on an 11-point scale, ranging from 0% to 100%. Endpoints and midpoint were 0% (other person got everything), 50% (even split), and 100% (I got everything). Finally, participants assessed the power distribution in the negotiation on a

<sup>&</sup>lt;sup>4</sup> In a pilot study using this same negotiation exercise between male and female negotiators, we counterbalanced role assignments across gender. We observed no main effect for role, F(1, 22) = 1.77, ns; similarly, the interaction between role and gender was not statistically significant, F(1, 21) = 0.75, ns.

similar scale, with endpoints and midpoint of 0% (other person had advantage), 50% (equal power), and 100% (I had advantage).

Experimental manipulations. Embedded in the negotiation general task instructions was the manipulation of stereotype activation. Experimenters in both the stereotype reactance and the shared superordinate identity condition read the following text aloud:

As psychologists, we are interested in examining the various personal factors that affect individuals' abilities to perform in important negotiations. For example, previous research has shown that the most effective people in negotiations like the one that you'll do today are rational and assertive, and demonstrate a regard for their own interests throughout the negotiation, rather than being emotional and passive.

In the stereotype-reactance condition, the experimenter went on to read, "Because these personality characteristics tend to vary across gender, male and female students have been shown to differ in their performance on this task."

In the shared superordinate-identity condition, the experimenter read the following:

The key difference in terms of who displays these skills is almost entirely determined by college education and professional aspirations. Simply put, people who are in competitive, academic environments, like you, do exceptionally well in the negotiations. This is true for men and women alike.

These instructions were meant to create a superordinate identification (student) that transcended gender. Individuals in the control condition were simply given general instructions about the task, as were the other conditions. Finally, all participants were told to expect that the negotiation would be very challenging for novice negotiators and that they should not expect to get a perfect score, but that they should put forth a strong effort.

#### Results

Prenegotiation assessment: Emotion as weakness. To examine how the activation of stereotypes affects self-identification in negotiations, we conducted a log-linear analysis on the percentage of participants who indicated emotion (the modal response) to be their key negotiating weakness across gender and stereotype activation (summarized in Table 3). Because negotiators had not interacted at the point at which they completed these assessments, we used the individual as the unit of analysis. We compared identification with emotion as a weakness across gender and stereotype activation conditions. Querall, women and men did not differ in the likelihood of identifying emotion as their key nego-

tiating weakness (M = 43% vs. 33%, ns), but stereotype activation interacted with gender for this measure,  $\chi^2(2, N = 124) = 8.45$ , p < .01. We then sought to more closely examine this interaction by conducting two planned orthogonal contrasts. First, we tested the hypothesis that women and men disidentify with genderconsistent traits in the reactance condition by comparing men and women in just the reactance and control conditions. Under normal circumstances (control condition) women (M = 46%) were more likely to indicate emotion to be their key negotiating weakness than men were (M = 22%), but women (M = 31%) were less likely to identify emotion as a weakness in the reactance condition than men were (M = 58%), z = 1.96, p < .05. Stereotype reactance led women to distance themselves from behaviors that women in the other conditions considered to be limiting to their potential success. We then conducted a second orthogonal contrast that involved a comparison of the superordinate identity condition to the reactance and control conditions, which was marginal, z = 1.88, p = .06.

Assertiveness as strength. The extent to which men and women identified assertiveness as their key strength, also summarized in Table 3, is consistent with the pattern of effects for identifying emotion as a key weakness, although not statistically reliable,  $\chi^2(2, N=124)=0.76$ , ns. The pattern of data suggests women were more likely to identify with counterstereotypical traits under reactance conditions than under normal circumstances.

Negotiation performance. We computed an overall value of the employment package for each person in the dyad. We predicted that stereotype activation and gender composition would affect the agreements reached between negotiators. To analyze performance, we created a difference score by subtracting the candidate's score from the recruiter's score and then conducted a two-way ANOVA with stereotype activation and dyad gender composition as factors. As summarized in Figure 1, the  $2 \times 3$  interaction was statistically significant, F(2, 57) = 3.31, p < .05.

To test our stereotype reactance hypothesis, we conducted two planned orthogonal contrasts that compared the stereotype-reactance and control conditions. In the mixed-gender dyads, we expected women to outperform men under reactance conditions, but expected men to outperform women otherwise. In the same-gender dyads, we expected that stereotype activation would not affect performance differences within the dyad. To test this hypothesis, we examined the Stereotype Activation (reactance vs.

Table 3

Experiment 3: Percentage of Participants Choosing Assertiveness as Key Negotiation Strength and Emotion as Key Negotiation Weakness in Prenegotiation Self-Assessment by Gender and Stereotype Activation

Gender	Stereotype reactance		Superordinate identity		Control		
	%	n	%	n	%	n	M (%)
Emotion as weakness							
Female	31.3	32	53.3	30	45.5	33	43.2
Male	58.3	12	16.7	12	22.2	9	33.3
Assertiveness as strength							
Female	50.0	32	56.7	30	54.5	33	53.7
Male	41.7	12	66.7	12	55.6	9	54.5

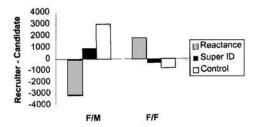


Figure 1. Experiment 3: Difference scores (recruiter score — candidate score) by stereotype activation and dyad composition. Difference scores were computed such that the candidate's score was subtracted from the recruiter's score. In female/male dyads, women always assumed the candidate role, and men always assumed the recruiter role. F/M = female/male dyads; F/F = female/female dyads; Reactance = stereotype-reactance condition; Super ID = superordinate-identity condition.

control)  $\times$  Dyad Gender Composition interaction. As expected, the two-way interaction was statistically significant, F(1, 57) = 10.11, p < .001. To better determine the source of this interaction, we conducted simple-effects tests. Consistent with our hypotheses, women outperformed men in the mixed-gender reactance condition, but men outperformed women in the control condition, F(1, 57) = 9.99, p < .01; the difference between the performance of the two negotiators in the same-gender dyads was not statistically significant, F(1, 57) = 1.80, ns. The second orthogonal contrast compared the superordinate identity condition to the reactance and control conditions across the two dyad gender compositions. As expected, the superordinate identity condition did not differ from the other two conditions, F < 1, ns.

Our second dependent measure of negotiation performance concerned joint gain, or the sum total of resources created at the bargaining table. Recall that we expected that creating a shared, superordinate identity would improve the ability of negotiators to create resources at the bargaining table, particularly for mixedgender dyads, who were expected to be most affected by a manipulation that minimized power differentials. To test this hypothesis, we conducted an ANOVA on joint gain, with stereotype activation and gender composition as between-groups factors. The 2  $\times$  3 interaction was statistically significant, F(2, 56) = 3.10, p <.05. We then conducted two planned orthogonal contrasts. First, we compared the difference between the shared superordinate identity condition versus the stereotype reactance and control conditions in the two dyad gender compositions. Consistent with our hypothesis, the two-way interaction between stereotype activation and gender composition was statistically significant, F(1,57) = 6.55, p < .01. We then conducted tests of the simple effects to more precisely examine this interaction. The extent to which women and men in the mixed-gender dyads who shared a superordinate identity (M = 9,542) created more resources than did dyads in the stereotype-reactance (M = 8,192) and control conditions (M = 8,311) was marginal, F(1, 57) = 3.76, p = .06; the difference in joint gain between the superordinate-identity condition (M = 7.811) compared with the reactance (M = 9.156) and control (M = 8,950) conditions within same-gender dyads was not statistically significant, F(1, 57) = 2.89, ns. Our second contrast compared the reactance and control conditions across the two dyad gender compositions. As expected, they did not significantly differ, F < 1, ns.

Postnegotiation assessment. The dyad was the unit of analysis for all postnegotiation measures. We were interested in examining two processes. First, we hypothesized that activating a superordinate identity would level the playing field among negotiators compared with the control and reactance conditions. With negotiators perceiving no power advantage or disadvantage relative to their opposite-sex negotiating partner, we expected them to find the negotiation particularly challenging. To test this hypothesis, we conducted an ANOVA on perceptions of challenge, including stereotype activation as a between-groups factor. Male and female negotiators in the shared superordinate-identity condition reported being more challenged (M = 4.71) than did male and female negotiators in the stereotype-reactance condition (M = 3.79) and control condition (M = 3.89), F(2, 30) = 3.29, p < .05. We also included measures of preparedness and focus, but no differences were found across experimental conditions.

Our next set of postnegotiation measures concerned perceptions of power and perceptions of performance relative to one's negotiating partner. To analyze these data, we computed a difference score of the candidate's response from the recruiter's response. Within the mixed-gender dyads, higher scores reflected higher self-assessments for men relative to women. We hypothesized that men would perceive greater personal adequacy in the control condition, whereas women would perceive greater personal adequacy in the reactance condition. We expected the superordinateidentity condition to fall between the two other conditions. We also did not expect perceptions of personal adequacy in the samegender dyads to be affected by stereotype activation. To test these hypotheses, we examined perceptions of power and performance with a multivariate analysis of variance, including stereotypeactivation condition and dyad composition as between-groups factors. As expected, the multivariate Stereotype Activation × Dyad Composition interaction was statistically significant, F(2,56) = 4.92, p < .05. Examining the univariate effects revealed a significant two-way interaction for perceptions of power, F(2,56) = 4.66, p < .05; the interaction effect was marginal for perceived performance, F(2, 56) = 2.44, p = .10. We then more closely examined the Stereotype Activation × Dyad Composition interaction for power within each dyad composition. The two-way interaction was statistically significant for mixed-gender dyads, F(2, 30) = 4.86, p < .05; but not same-gender dyads, F < 1, ns. Examining the pattern of means revealed that men perceived greater power relative to women in the control condition (M = 28.89), whereas women and men's perceived power was nearly equal in the reactance condition (M = -3.33). Men's perceived power in the superordinate condition fell between the other two conditions (M = 18.33).

# Discussion

As in Experiment 3, women in this study achieved superior outcomes when told that their gender should be limiting to them. We suggest that the reversal of fortune for women in mixed-gender negotiations under stereotype-reactance conditions is a result of a dual process. First, women reacted against the stereotype. Second, men feared not fulfilling the positive stereotype (Brown & Josephs, 1999), which led to self-doubt and lowered performance. When both had a shared superordinate identity that was irrelevant to gender activated, any bargaining advantage for one negotiator

was negated. The effect of activating a superordinate identity is similar to the effect of negotiating with a same-sex partner observed in two experiments: When both men (Experiment 2) or both women (Experiment 4) are under conditions of stereotype activation, whether explicit or implicit, the effects are eliminated.

One goal of this study was to better determine the underlying processes that lead to stereotype-reactance effects. Our process data suggest that it is what appears to be particularly aversive conditions that lead women to marshal important cognitions and behaviors, such as disidentifying with emotionality and embracing rationality that assist them in the negotiation. The opposite was true for men—when explicitly reminded of the male stereotype and its advantages at the bargaining table, men felt less powerful and less successful than men who were not explicitly reminded of the powerful male stereotype. Finally, consistent with our predictions and results from Experiment 2, stereotype activation is limited to mixed-gender situations: No differences were observed within same-sex dyads, even when stereotypes were activated, suggesting that priming and context are both important for subsequent behavior.

In this study, we also sought to address an alternative explanation for why men's performance suffered under explicit stereotypeactivation conditions. It is possible that the performance advantage experienced by women after explicit stereotype activation (as in Experiment 3) resulted from the reactions of men to the stereotype activation. In other words, perhaps men felt such a tremendous advantage over women that they either allowed women to dominate out of a chivalrous motive (Pruitt et al., 1986) or attempted to minimize their advantage so that their negotiating partner had an equal or fair opportunity at the pie. If men overcompensated by not applying their power as forcefully in the negotiation, it could explain how explicit stereotype activation hurt their performance. One step we took to ensure that men did not simply bow out of the negotiations involved offering attractive monetary prizes that were tied to performance. Although it is still possible that these concerns for chivalry or fairness persisted in the minds of men, they do not explain the self-identification and disidentification process findings revealed by the pre- and postnegotiation assessments. Nonetheless, future explorations of how these motives play out in mixed-gender negotiations may be worthwhile endeavors.

The second focus of this experiment was to explore the effect of creating a superordinate identity that perhaps transcended gender on negotiator performance. We argue that the superordinate identity exerted an equalizing effect on perceived power in the mixedgender negotiation, which is consistent with the finding that negotiators in this condition perceived the negotiation as more challenging than did those in the reactance and control conditions. Because both men and women shared a common identity, the perceived difference between the two negotiators was minimized and negotiators were better able to work cooperatively. Examining joint gain, or the amount of resources created through cooperative behaviors such as concession making, trade-offs, and information sharing (Thompson, 1998), reveals that activating a superordinate identity with men and women can enable the creation of resources that otherwise would have been left on the negotiating table. It is worth noting that the pattern of data suggest that this ability to create resources in the superordinate-identity condition does not extend to same-gender dyads.

For both the reactance and superordinate-identity manipulations, we activated identities and made explicit statements about gender. In one case, we validated the notion of a gender gap, and in the other case we invalidated this idea. It is difficult to determine whether it was the activation of the different identities per se or the particular statement of fact made by the experimenter concerning gender that affected behaviors. Our goal was to clearly establish different identities-unique gender identities versus shared college student identities—and examine their effect on negotiation performance. Kramer and Brewer's (1984) previous findings suggest that the explicit labeling of group members as sharing a common identity is not necessary to produce more cooperative actions. Nonetheless, future research will profit from determining whether our superordinate-identity manipulation would have an equalizing effect on performance if gender were not explicitly labeled as irrelevant to negotiation success.

#### General Discussion

The question of who has the advantage at the bargaining table has important theoretical and practical implications. Although the bulk of the evidence suggests men have the bargaining advantage, the question remains whether this is the result of inherent ability differences or driven by stereotyped expectations by either men or women. Steele (1997) claims that academic underperformance by members of stereotyped groups is largely determined by stereotypes, independent of actual ability. When the situation appears to be diagnostic and one's ethnicity or gender is made salient, members of stereotyped groups underperform. However, when the context deemphasizes one's stigmatized social category, then members of stereotyped groups perform equally well to their nonstereotyped counterparts. We built on Steele's analysis and developed a model of stereotype activation in the context of mixed-gender negotiations.

On embarking on this investigation, we conducted a simple pretest designed to examine stereotypes of men and women at the bargaining table. We examined the stereotypes held by people who would presumably be least likely to be affected by classic gender roles and most likely to display enlightened views about men and women: MBA students at a top business school. These are men and women of high and unusual achievement. Nevertheless, their mental models or stereotypes about men and women fell remarkably along classic gender lines. Further, their lines of causal reasoning harkened back to age-old trait-associations for men and women, with women seen as accommodating, conciliatory, and emotional and men viewed as assertive, powerful, and convincing. With the knowledge that gender-relevant stereotypes are tied to perceptions of successful and unsuccessful negotiators, we proceeded with our investigation.

# Stereotype Activation

Stereotype confirmation. Fundamentally, our model rests on the role of implicit stereotype activation on performance. First, we hypothesized that implicit stereotype activation prior to negotiation represents a threat for women and an opportunity for men, and ultimately leads to a performance advantage for men negotiating with women. These hypotheses were derived in part from Steele's (1997) stereotype threat theory. According to stereotype threat

theory, a negative stereotype, whether or not it is endorsed by the holder, influences judgments and behavior. Because the classic gender stereotype is only a threat to women, and presumably an affirmation for men, we tailored our terminology to fit the interdependent context of negotiations, and labeled this principle stereotype confirmation.

In Experiment 1, we determined that simply reminding individuals that the task before them is revealing of inherent ability and future success leads women's performance to suffer and men's performance to improve. In contrast, when the task was explicitly described as not diagnostic of ability, no difference in performance was observed. The diagnosticity manipulation decreased expectations for performance for women and increased expectations for performance for men. Just as in Steele and Aronson's work (1995), engaging in a task that is linked to stereotypes can lead to lowered expectations and confirmation of these stereotypes when members of negatively stereotyped groups believe the task to be diagnostic of their ability.

In Experiment 2, we examined the effect of implicit stereotype activation on the negotiation performance of men and women over and above making the negotiation diagnostic of ability. The effects of stereotype activation on men and women were not symmetric. Specifically, women's performance did not suffer as hypothesized—their ability to claim resources was no worse under conditions of stereotype activation than the control condition. However, stereotype activation did affect men's performance when negotiating with women. Specifically, men were more adept at claiming resources when gender stereotypes had been activated compared with when they had not. We hypothesize that this effect resulted from the increased confidence experienced by men who were exposed to the gender stereotype. These results lead us to conclude that implicit stereotype activation serves as a performance boost for men only.

Stereotype reactance. Perhaps the most noteworthy theoretical extension of Steele's (1997) work from this set of studies involves our examination of stereotype reactance. Basing our hypotheses on the priming literature's distinction between assimilation and contrast effects (Higgins, 1996; Martin, 1986; Moskowitz & Skurnik, 1999), we expected women to attempt to dissociate from an explicit prime, and therefore exhibit behaviors that are contrary to the limiting female stereotype. Further, we predicted that men would "choke" under the pressure of an explicit positive stereotype, much as did the men whose performance suffered when they were told that the math test they were about to take would be used to identify top-notch mathematicians (Brown & Josephs, 1999).

In two experiments, we demonstrated that the mode in which a stereotype is activated determines whether it has a beneficial or detrimental effect on performance. In our third experiment, we invoked reactance against gender stereotypes by reminding negotiators, in an unsubtle manner, of traits that are characteristic of successful negotiators and then explicitly drawing the link between these traits and gender roles. Women performed better when the stereotype had been explicitly activated compared with when the stereotype was not activated. The opposite was true for men. Our final experiment was conducted to further examine the processes by which women confirm or react against a negative gender stereotype. We observed that enhanced performance for women might be due to an increased disidentification with negotiator traits perceived to be negative (and feminine) and identification with

negotiator traits perceived to be positive (and masculine), and vice versa for men. This constellation of results supports our stereotype confirmation and reactance hypotheses.

It is worth noting that the conditions required to produce reactance effects might be more complex than our studies suggest. Spencer et al.'s (1999) manipulation involved the explicit endorsement of gender stereotypes, yet their manipulation led to stereotype confirmation, not reactance. By comparing our studies to their research, we are led to conclude that reactance effects might be limited to certain contexts and might also depend on providing members of negatively stereotyped groups knowledge of the skills needed to successfully react. For example, the ability to react against a negative stereotype might be facilitated in an interactive context in which a positive stereotypic trait (e.g., assertiveness) affects performance (negotiation) and is potentially achievable in the given context (i.e., one can try to act more assertive in a negotiation), compared with a noninteractive, academic context in which the necessary trait or behavior is not so easily obtained (e.g., analytic math ability). Thus, the inclusion of gender traits that are linked (accurately) to successful negotiator performance in Experiments 3 and 4 might have facilitated the reactance effect by giving women the tools needed to react. Future research will be needed to better understand the processes leading to reactance versus stereotype confirmation.

Superordinate identities. Finally, we examined the impact of mutually shared superordinate identities in negotiations. In the fourth experiment, we attempted to create what would seem to be ideal conditions for women to adopt a positive identity about themselves prior to negotiating—an identity they shared with their male counterparts. We expected that this shared superordinate identity would mitigate the confidence and power differential across genders, and ultimately lead to greater cooperation relative to neutral conditions.

Whereas implicitly activating the stereotype can undermine the ability of women to expand the pie (Kray, Thompson, & Galinsky, 2000), activating a shared superordinate identity in a mixed-gender negotiation increased joint gain. This finding is consistent with the work of Kramer and Brewer (1984). Whereas they found that activating a superordinate identity led to fewer resources being consumed, we found that superordinate identities can lead to more resources being created. Because negotiations contain both competitive and cooperative elements, investigating the differential effects of stereotypes on these two types of negotiation issues is important. Finally, it is worth noting that, somewhat surprisingly, the shared superordinate-identity condition did not improve performance of women relative to the stereotype-reactance condition; instead, invoking a negative stereotype had a more positive impact on performance than did invoking a positive stereotype. It may be that, because the positive stereotype identity was shared by both negotiators, its benefit to one negotiator negated its simultaneous benefit to the other negotiator, much like our predictions and results regarding same-gender negotiations.

# Future Directions and Limitations

We argue that the creation of a superordinate category (i.e., high-achieving college students) in Experiment 4 overpowered the conflicting subordinate category of gender and, consequently, leveled the playing field (Kramer & Brewer, 1984). Future research

should identify precisely which behaviors become more prevalent when a commonly shared superordinate identity is emphasized in mixed-gender negotiations that ultimately lead to higher joint gain. The findings from Experiment 4 suggest that, if the goal of a negotiation is to create equally valued agreements for both negotiators, then a focus on a commonly shared positive identity works to achieve this goal (Thompson, 1993). One question that arises from our results is whether implicitly activating a positive stereotype identity that only applies to women has a positive effect similar to that resulting from stereotype reactance and similar to the facilitating effect that implicitly activating a positive stereotype had for men in Experiment 2. Linking traits stereotypical of women to effective negotiating behavior should increase the performance of women and decrease performance for men. This would be a strong test of Steele's (1997) theory of stereotype threat—the context and manner in which gender is emphasized and the valence attached to each gender determines performance. The situation, rather than the person, would be the primary determinant of negotiator performance.

Collectively, our model and results suggest an intimate and important link between cognition and behavior, especially in light of the fact that most of our students do not believe the gender stereotypes to be true of themselves. This implies that just having an awareness of a stereotype relevant to one's social group can have a limiting (and in some cases, empowering) effect on behavior. This point has implications for negotiations research and theory in general, which has paid relatively little attention to the unconscious processes and implicit cognitions of negotiators (Greenwald & Banaji, 1995). The development of negotiation theory that further ties implicit cognitions to negotiator behavior might increase our understanding of and ability to predict what outcomes are achieved at the bargaining table. A first step might be to actually observe and document the behaviors at the bargaining table that are affected by stereotype activation.

# Conclusions

Imagine the difference in coaching that a consultant reading this article might offer to a male client about how to face a tough negotiation challenge versus the advice for a female client. Ample evidence suggests that it is women who traditionally have been the more disadvantaged gender in terms of important salary negotiations in professional settings (Gerhart & Rynes, 1991; Wood, Corcoran, & Courant, 1993). Focusing just on women, we might examine our results concerning stereotype activation and conclude that performance would best be improved by making the implicit explicit. At least that offers the women a chance to rebel against the stereotype. However, in our age of political correctness, the explicit is often left implicit. The boomerang or reactance data obtained here suggest that designing conditions to instigate a reactance effect might be worthwhile, yet controversial, because explicitly activating a negative stereotype means making clear statements about performance, ones that might be met with skepticism at best. Controversy aside, understanding how to reduce the gender gap in negotiations is an important endeavor because negotiations are an integral part of interpersonal interactions.

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# Appendix

# Reasons Given for Male Versus Female Distributive Advantage in Negotiations

Reasons for male advantage	Reasons for female advantage		
Men do not want to lose to women (12) Men are more competitive and aggressive (9)	Females are more attuned to feelings and thoughts of others (7)		
Men are less willing to compromise/women will accommodate (9)	Men underestimate women/a good woman negotiator takes a man by surprise (7)		
Easier for men to be strong and firm (8)	Men are gentlemanly to women and not rude (5)		
Men care less about the relationship (and will therefore	Women work harder than men (4)		
bargain harder) (4)	Men have less familiarity with women (4)		
Men have more experience (3) Men intimidate women (3)	Women have home decision-making experience that helps in negotiations (3)		
Men are more unscrupulous (3)	Women are given more respect in today's business		
Women more concerned about fairness (2)	world (2)		
There are more men out there in business (2)	Men desire to protect women (2)		
Women do not have access to male activities outside of negotiations (2)	The property of the property o		

Note. Frequency of each reason is in parentheses. Only reasons listed by more than one person are included.

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