Reactions to Counterstereotypic Behavior: The Role of Backlash in Cultural Stereotype Maintenance

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Social and economic sanctions for counterstereotypical behavior have been termed the *backlash effect* (L. A. Rudman, 1998). The authors present a model of the role of backlash in cultural stereotype maintenance from the standpoint of both perceivers and actors. In Experiments 1 and 2, participants lost a competition to either atypical or typical men or women and subsequently showed greater tendency to sabotage deviants. Moreover, undermining deviants was associated with increased self-esteem, suggesting that backlash rewards perceivers psychologically. Experiment 3 showed that gender deviants who feared backlash resorted to strategies designed to avoid it (e.g., hiding, deception, and gender conformity). Further, perceivers who sabotaged deviants (Experiment 2) or deviants who hid their atypicality (Experiment 3) estimated greater stereotyping on the part of future perceivers, in support of the model's presumed role for backlash in stereotype maintenance. The implications of the findings for cultural stereotypes are discussed.

When perceivers meet targets, they are likely to categorize them on the basis of physical features (e.g., gender, age, or race) and then to form a category-based impression unless perceivers are motivated and have the opportunity to form a bottom-up impression (i.e., to personalize them; Brewer, 1988; Fiske & Neuberg, 1990). This process also relies heavily on targets' characteristics, because when perceivers receive clear, unambiguous information about targets' counterstereotypical attributes, their subsequent impressions are less likely to rely on stereotypes (Kunda & Thagard, 1996). Thus, from the actor's standpoint, a powerful way to thwart stereotypes is to behave in a manner that suggests you are an atypical exemplar.

However, disconfirming stereotypes does not readily lead to personalization, because the social category can still maintain a grip on impressions. As Brewer (1988) noted, "information that is inconsistent with category expectations can be handled in a num-ber of ways" (p. 20). If it is frequently encountered or highly salient, a category subtype might be formed (e.g., pedophiliac priests). However, if the information is attached to a single person, he or she is likely to be individuated—that is, set off as a particularized instance of the category (e.g., the female Senator from New York). Because subtyping and individuation are category-based options for perceivers, truly personalized (i.e., uncontaminated) impressions may be extremely rare (Fiske, Lin, & Neuberg, 1999). Thus, perhaps the most a stereotype-disconfirming actor can hope for is to be individuated rather than stereotyped.[1]

But what happens then? Impression formation models speak mainly to the process by which people form impressions, resulting in a (necessarily) narrow approach to the social judgment process. Less considered are the consequences of social judgments for targets, actors, perceivers, and society as a whole. Personalization is an ideal because "accuracy is doubtless a virtue" (Fiske et al., 1999, p. 240), but if it is indeed rare we ought to consider the prospects of individuated targets (i.e., solo expectancy violators), for whom refuting stereotypes does not always reap rewards. In fact, violating stereotypes can result in social and economic reprisals—a phenomenon known as the *backlash effect* (Rudman, 1998). In addition, although perceivers may individuate atypical targets, backlash likely curbs their success and visibility, which may reinforce stereotypes in the culture at large. Further, the threat

[1] It should be noted that Brewer's (1988) personalization was termed *individuation* by Fiske and Neuberg (1990), who referred to Brewer's subtyping and individuation processes as *recategorization*. We use Brewer's terminology because it distinguishes between subtyping and individuation, both of which are category-based processes, and it is the latter we are concerned with here.

of backlash may cause defensive reactions in counterstereotypical actors that might also promote cultural stereotypes. Finally, we should take into account the possible functions of backlash for perceivers, including its potential self-esteem benefits. Our goal is to take a broader view of the social judgment process by considering the implications of stereotype violation for targets, actors, and perceivers and, ultimately, the role that backlash plays in maintaining cultural stereotypes.

As reviewed below, prior backlash research has focused on negative outcomes for atypical targets. This is an important phenomenon in its own right, because it reveals the costs of violating stereotypes—an important precursor to individuation. However, less investigated have been (a) the possible psychological benefits for perceivers who engage in backlash and (b) the subsequent effects of backlash on society through stereotype maintenance. In addition, past research has neglected the other side of the backlash coin—its possible effects on actors. If backlash exists, it seems plausible that actors are aware of it and strive to avoid it. For example, if fear of backlash leads to closeting cross-sexed behaviors or to a subsequent increase in gender conformity, then its role in stereotype preservation from the actor's perspective will be revealed. Although there has been considerable debate about the accuracy of stereotypes (e.g., C. M. Judd & Park, 1993; Jussim, 1991; for a review, see Fiske, 1998), there can be no doubt that stereotypes are likely to be perceived as accurate to the extent that atypical targets are prevented from becoming visible, disconfirming exemplars or that atypical actors closet their own counterstereotypical behaviors. After reviewing the literature pertinent to backlash effects, we present a working model that addresses these issues and three experimental tests of its assumptions. Finally, although the research is centered on gender stereotypes, the general discussion takes up the question of the model's generalizability to other domains.

Backlash: Consequences for Gender Deviance

Backlash can be particularly severe for actors who step outside of gender bounds (i.e., *gender deviants*; e.g., Bartol & Butterfield, 1976; Cherry & Deaux, 1978; Costrich, Feinstein, Kidder, Marecek, & Pascale, 1975; Derlega & Chaiken, 1976). For example, agentic female job applicants are perceived as highly qualified, but they are also viewed as socially deficient and unlikable, which results in hiring discrimination. Similarly, communal men are perceived as highly likable, but they are also viewed as less competent and hirable compared with agentic men (Rudman, 1998; Rudman & Glick, 1999, 2001). These findings suggest that gender deviants are subject to penalties in much the same way as perceived violators of any other norm (for a review, see Cialdini & Trost, 1998). The difference is that penalizing atypical job applicants (e.g., by not hiring or promoting them) prevents them from becoming successful, recognizable role models and thereby curbs their ability to undermine gender stereotypes.

Sanctions for female atypicality have been observed under numerous circumstances. For example, female leaders who exhibit a directive style receive more negative evaluations than those who have a participatory style (Eagly, Makhijani, & Klonsky, 1992). Similarly, female speakers are less persuasive when their style is "task oriented" versus "people oriented" (Carli, LaFleur, & Loeber, 1995). Assertiveness is viewed negatively in women (Costrich

et al., 1975; Powers & Zuroff, 1988), even when it involves self-defense (Branscombe, Crosby, & Weir, 1993). These constraints on women's behavior have serious economic and psychological effects, ranging from being disadvantaged during job interviews and hiring negotiations (Janoff-Bulman & Wade, 1996) to engaging in self-defeating behaviors on the job (Riordan, Gross, & Maloney, 1994; Wiley & Crittenden, 1992) to being bypassed for promotions (Fiske, Bersoff, Borgida, Deaux, & Heilman, 1991; Heilman, 2001; Lyness & Judiesch, 1999; Sonnert & Holton, 1996). The picture that emerges for women is that they must enact masculine competencies in order to be perceived as qualified for high-status roles; however, they risk backlash when they do.

Men are also subject to the constraints of gender norms. For example, a man who self-disclosed his problems to a stranger was judged to be more psychologically disturbed compared with an identically described woman (Derlega & Chaiken, 1976; see also Costrich et al., 1975). Similarly, successful male nursing students were perceived to be at risk for future victimization (Cherry & Deaux, 1978). In fact, the developmental literature suggests that cross-sexed behavior in boys is judged more negatively than cross-sexed behavior in girls, by parents (Sandnabba & Ahlberg, 1999), teachers (Cahill & Adams, 1997), and peers (Fagot, 1977; Martin, 1990) alike, in part because of the greater fear of homosexuality in "feminine" boys compared with "masculine" girls. As a result, more boys than girls are diagnosed with gender identity disorders, and the threshold of deviance is lower for boys before they are referred for clinical assessment (Zucker, Bradley, & Sanikhani, 1997). By contrast, the social psychological literature has primarily focused on backlash for agentic behavior in women because of its ominous implications for the glass ceiling and gender parity.

In sum, men and women alike may suffer severe costs for violating gender stereotypes. What is needed is a formal outline, based on past research, of the conditions likely to promote backlash effects on the part of perceivers. In this respect, the model presented below directly addresses what happens after counterstereotypical targets are individuated, thereby taking up where impression formation theories have left off (Brewer, 1988; Fiske & Neuberg, 1990; Kunda & Thagard, 1996). More uniquely, it considers possible rewards for perceivers who undermine counterstereotypical targets and the role of backlash in preserving cultural stereotypes. Although the nature of this role differs when considering backlash from the perspective of perceivers compared with actors, the outcome is likely to be reinforcement of stereotypic beliefs in each case.

A Model of Backlash and Cultural Stereotype Maintenance

To outline the implications of backlash for stereotype maintenance, we developed a working model (see Figure 1). The top and bottom rows of Figure 1 detail the sequence of events from the standpoint of perceivers and actors, respectively. Below, we discuss each in turn.

The Role of the Perceiver

Backlash Toward Atypical Targets

As can be seen in Figure 1's top row, cultural stereotypes (i.e., normative expectations) can cause a stereotype-disconfirming tar-
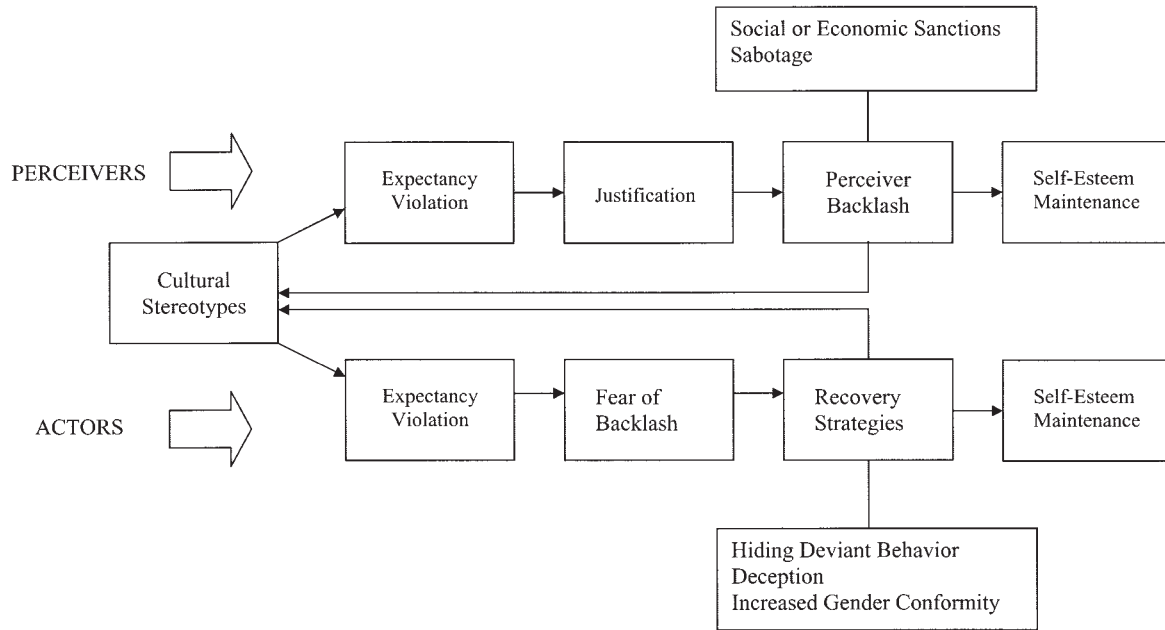
Figure 1. Working model of the role of backlash in stereotype maintenance processes. The top and bottom rows show the sequence of events from the standpoint of perceivers and actors, respectively.

get to be perceived as deviant—that is, as an instance of expectancy violation (e.g., Biernat, Vescio, & Billings, 1999; Jussim, Coleman, & Lerch, 1987). In essence, the social category evokes a standard to which the target is compared; when a male or female target fails to fit the standard, a contrast effect may cause him or her to be viewed as "insufficiently" feminine or masculine (Riordan et al., 1994; Yoder & Schleicher, 1996; see also Kobrynowicz & Biernat, 1998). Because stereotypes can be highly prescriptive (e.g., sex stereotypes do not merely describe how women and men are but also prescribe how they should be; Fiske, 1998), expectancy violations can then result in social or economic sanctions for counterstereotypical behavior (i.e., backlash). Using a job-hiring paradigm, past research has shown that atypical female and male applicants suffer backlash on likability and competence dimensions, respectively (Rudman, 1998; Rudman & Glick, 1999, 2001). Thus, social sanctions for atypical targets have differed along stereotypical dimensions, with women and men being viewed as insufficiently communal or agentic, respectively. Because either of these perceptions leads to hiring discrimination, economic sanctions have been similar (see also P. C. Judd & Oswald, 1997). Experiments 1 and 2 expanded the scope of backlash to include undermining atypical opponents' future success (i.e., *sabotage*), thereby depriving them of the opportunity to win a competition.

Justification for Backlash

However, according to Figure 1, the probability of backlash increases when perceivers feel that it is justified. That is, we view sanctioning atypical actors as a motivated process. Backlash may be intentionally punitive (i.e., used as a form of punishment) or primarily defensive (i.e., used in response to a threatened need), but it is likely to be exacerbated when perceivers feel they "have

a right" to use it. That is, stereotypic expectancies guide negative perceptions of deviants, but these perceptions should be more likely to be acted on when people deem their response as warranted. For example, Rudman and Glick (1999) found that agentic women were more likely to be discriminated against when they vied for a feminized as opposed to a masculine management position. That is, masterful women were viewed as a poor fit for a job that required both interpersonal and technical skills, whereas less backlash was observed when the job required technical skills only. Thus, perceivers judged masterful women particularly harshly when they felt justified in doing so—an interpretation in line with Yzerbyt, Schadron, Leyens, and Rocher's (1994) social judgeability framework.

More pertinent to the present research, losing to deviants in a competition should also promote backlash, in at least two ways. First, failure threatens self-esteem, and threats to self-worth can automatically activate social stereotypes (e.g., Spencer, Fein, Wolfe, Fong, & Dunn, 1998). When the stereotype is activated, disconfirming targets may be particularly likely to be contrasted away from the category (i.e., viewed as expectancy violators, the first step in Figure 1). Second, self-esteem threats may enhance perceivers' justification for backlash. Consistent with this view, people reacted negatively to counterstereotypical targets under mortality salience (Schimel et al., 1999). That is, people who thought about their own death subsequently preferred stereotypical targets (on the basis of gender, race, and sexual orientation) more than atypical counterparts, likely because of a desire to defend their cultural worldview as a means of gaining symbolic transcendence. More generally, threatening people's self-integrity (not merely through mortality salience) often results in self-protective reactions (e.g., Fein & Spencer, 1997; McGregor, Zanna, Holmes, & Spencer, 2001).

Consequently, perceivers' defeat in a competitive context may provoke backlash in the service of self-esteem. Indeed, when perceivers and targets are interdependent, backlash effects can be ameliorated (Rudman, 1998; Wolsko, Park, Judd, & Bachelor, 2003). Experiments 1 and 2 placed perceivers in competition with typical or atypical targets who were always victorious, with the expectation that perceivers would feel justified for engaging in backlash toward deviant competitors.

Backlash and Stereotype Maintenance

If atypical targets are more likely to be undermined than normative targets, the likelihood that stereotypes will be maintained through perceivers' actions is high. For example, if female surgeons are more likely than male surgeons to be sabotaged by coworkers, their ability to gain respect and visibility is undermined (Heim, 1990). Similarly, if atypical men and women are judged less hireable for management roles than their normative peers, their ability to stand out as successful role models is at risk (e.g., Rudman & Glick, 1999, 2001). As a result, costs for violating stereotypes should lead to stereotype preservation in the culture at large. Experiment 2 tested this proposition by investigating whether perceivers who sabotaged deviants would estimate greater stereotypic expectancies for future perceivers (whose beliefs would not be challenged by an atypical competitor, courtesy of the saboteurs).

Backlash and Self-Esteem Recovery

Although much is known about the costs of behaving counterstereotypically, possible benefits to perceivers who penalize deviants are currently unknown. Experiments 1 and 2 were designed to begin to fill this gap by examining whether backlash might be linked to self-esteem benefits. Although past research has suggested that derogating others may preserve self-esteem in the wake of threats to one's self (e.g., Cialdini & Richardson, 1980; Fein & Spencer, 1997; Spencer et al., 1998) and to one's in-group (Tajfel, 1982; Tajfel & Turner, 1979; for a review, see Rubin & Hewstone, 1998), our attention focused specifically on psychological rewards for undermining deviant compared with normative targets.

According to the model, backlash should enhance perceivers' self-esteem only when it is justified (e.g., directed at deviants in response to self-esteem threat). This prediction follows from both personal and collective self-esteem research. For example, Tesser and Smith (1980) found that men given failure feedback on a self-relevant (but not self-irrelevant) task subsequently sabotaged a friend's ability to complete the task successfully. Thus, sabotage likely protected personal self-esteem, in accordance with self-evaluation maintenance theory (Tesser, 1988, 2000). Further, Branscombe and Wann (1994) found that Americans who derogated an out-group reported high collective self-esteem but only when the out-group threatened their social identity. By contrast, derogation of a nonthreatening out-group resulted in low collective self-esteem scores, likely because perceivers suffered guilt from their unprovoked attack. Similarly, participants induced to ostracize a confederate for unwarranted, punitive reasons subsequently showed low personal self-esteem (Zadro & Williams, 1998). These results suggest that antisocial reactions can result in psychological costs for perceivers unless the reaction is justified. Experiments 1

and 2 examined whether similar findings would emerge for perceivers who undermined atypical or typical targets, using a modified version of Tesser and Smith's (1980) sabotage task. Because backlash is not likely to be invoked arbitrarily but must, instead, bestow some benefit to perceivers who engage in it, we expected only participants who undermined deviants to derive a self-esteem benefit.

Summary

Cultural stereotypes can lead disconfirming targets to be viewed by perceivers as deviants and, if justifiable, backlash may result. When backlash is justified by a threat to self-esteem, it may facilitate self-esteem recovery. However, because backlash stymies the success of atypical role models, stereotypes are maintained in society. That is, the necessity of challenging stereotypes through counterstereotypical exemplars is likely to be as true for society as it is for individuals (e.g., Fiske & Neuberg, 1990). Thus, a process that rewards perceivers may be costly not only for atypical targets but also the culture at large.

The Role of the Actor

The role that actors play in cultural stereotype maintenance is likely to be as important as the role of perceivers. For example, for men, a lifetime of experience observing one's peers being teased or ostracized for "effeminate" behavior may evoke strong normative pressures toward highly masculine self-presentations (Pleck, 1981; Pleck, Sonenstein, & Ku, 1993; Thompson & Pleck, 1986). Similarly, women may pretend to be hyperfeminine to placate men with traditional gender beliefs (von Baeyer, Sherk, & Zanna, 1981; Zanna & Pack, 1975). Indeed, gendered norms and expectancies are argued to be causative factors in observable sex differences (Deaux & Major, 1986; Eagly, 1987). Thus, it seems likely that fear of backlash is a significant force vis-à-vis keeping men "manly" and women "feminine." Although the strength of normative pressures to comply with gendered expectancies has been underinvestigated, our model brings this pressure (i.e., the threat of backlash) front and center. If correct, the role of backlash in stereotype maintenance will be broadened to include its effect on actors as well as perceivers.

Actor Deviance and Fear of Backlash

The bottom row of Figure 1 outlines the process by which actors can reinforce cultural stereotypes. In this case, we are concerned with people who enact counterstereotypical behaviors (i.e., who violate expectancies) and their subsequent fear of suffering backlash. Social psychologists have long known that deviants can bear the brunt of social rejection (Schachter, 1951). Indeed, Horner's (1972) classic argument that women "fear success" has been revised by research demonstrating that women and men alike fear cross-sexed deviance, not success per se (Cherry & Deaux, 1978; Yoder & Schleicher, 1996). However, this research has relied solely on projective judgments of deviant targets (i.e., on perceivers predicting negative outcomes for targets who excelled in crosssexed domains). Thus, it is unclear whether people fear backlash (i.e., social rejection) for their own deviant behavior. Experiment 3 sought support for this assumption.

Recovery Strategies and Self-Esteem Maintenance

The next two components rely on the fact that social rejection impacts negatively on self-esteem, in accordance with sociometer theory (Leary & Baumeister, 2000). As a result, the model presumes that deviants who fear backlash will be motivated to avoid it and that they will seek to recover their social standing (and thereby their self-esteem) by whatever means are available. Straightforward means include hiding or lying about cross-sexed behavior. In addition, deviants who fear backlash might increase their gender conformity to redouble their efforts to appear "normal." This possibility was suggested by developmental research, in which children were more likely to play with same-sexed (as opposed to cross-sexed) toys if they knew at least one person who thought that cross-sexed play was "bad" (Raag, 1999; see also Raag & Rackcliff, 1998). However, because fear of backlash was not assessed, it is possible that children were conforming for some other reason. By contrast, the model underscores fear of backlash as a prerequisite for gender conformity (and other recovery strategies) in the wake of deviant behavior.

To test these hypotheses, in Experiment 3 we led some men and women to believe they had performed well on a cross-sexed task and then gave them the opportunity to (a) hide their success, (b) falsely claim success on the same-sexed task, and (c) express interest in same-sexed activities (occupations and sports). We assessed self-esteem to test the model's assumption that these strategies would allow gender deviants to recover their self-regard.

Fear of Backlash and Stereotype Maintenance

People who disconfirm stereotypes are precisely those best able to challenge, and thereby weaken, cultural stereotypes (Brewer, 1988; Fiske & Neuberg, 1990; Kunda & Thagard, 1996). Indeed, counterstereotypical attributes may be attended to carefully under a broad array of circumstances (Fiske et al., 1999; Plaks, Stroessner, Dweck, & Sherman, 2001; Sherman & Frost, 2000). Thus, counterstereotypical actors should play a pivotal role in stereotype reduction. However, Figure 1 posits that actors who fear backlash may hide their deviance and conform to stereotypes in order to avoid social rejection and maintain their self-esteem. If so, then the people most able to challenge stereotypes may, ironically, be least likely to do so when the threat of backlash is prominent. Experiment 3 tested this assumption by investigating whether deviants who hid their atypical performance would estimate greater stereotyping on the part of future perceivers compared with deviants who disclosed their behavior.

Summary

Cultural stereotypes can create expectancy violations in actors as well as perceivers. Actors who fear social rejection for counterstereotypical behaviors are likely to closet their cross-sexed behavior, use deception, and increase their gender conformity as a means of avoiding backlash and maintaining their self-esteem. However, these actions are likely to sustain cultural stereotypes by depriving perceivers of the opportunity to have their stereotypes challenged. Instead of witnessing a successful, disconfirming exemplar, perceivers may be led to believe that the actor is a typical group member. In this way, actors who fear backlash may reinforce stereotypes in perceivers and, subsequently, in the culture at large.

Research Overview and Hypotheses

Experiments 1 and 2 examined whether perceivers would sanction men and women who outperformed them on a cross-sexed computer game task. To determine whether sabotage could be added to backlash effects, we afforded participants the opportunity to affect the outcome of targets' future success (Tesser & Smith, 1980). We expected gender deviants to be sabotaged, whereas these same targets should emerge relatively unscathed if they succeeded at gender normative tasks. All participants believed that by losing a computer game, they would relinquish the chance to go on in a competition and to ultimately win a cash prize. Thus, we controlled for the effects of losing the competition in order to examine whether it was particularly costly for deviant (compared with normative) targets to succeed. That is, and in accord with Figure 1, defeat was expected to justify backlash, but normative targets should be less likely to be sabotaged because they are not expectancy violators. In Experiment 1, the computer game tasks concerned either knowledge of football or children's developmental skills. In Experiment 2, these tasks were replaced with generalized masculine and feminine knowledge tests. In addition, Experiment 1 examined the path leading from perceiver backlash to self-esteem maintenance in the expectation that implicit and explicit self-esteem would be greater for perceivers who sabotaged deviant, compared with normative, competitors.

Experiment 2 continued to test the self-esteem hypothesis but also investigated whether perceivers understood the implications of sabotage for targets' future success as well as for future perceivers' gender stereotypes. We expected perceivers who encountered deviants to be aware that sabotage would undermine their competitor. To support the path leading from perceiver backlash to cultural stereotype maintenance, we expected perceivers to understand that sabotaging deviants would protect the stereotypes of subsequent perceivers. This would be in accord with the model's assumptions that by undermining atypical exemplars, future perceivers would not meet them; as a result, their stereotypes would not be challenged and cultural beliefs about men and women would be allowed to persist. Note that this process follows directly from impression formation theorists' argument that disconfirming exemplars are necessary to wrest perceivers away from category-based impressions (Brewer, 1988; Fiske & Neuberg, 1990).

Experiment 3 examined the effects of backlash on actors' reactions to their own gender deviance and, therefore, its role in stereotype maintenance. Consistent with the bottom row of Figure 1, we expected people led to believe they had violated gender norms to (a) fear backlash and (b) respond defensively by engaging in recovery strategies (e.g., by hiding their deviance and conforming to gender norms). In addition, Experiment 3 tested the path from recovery strategies to cultural stereotypes by determining whether deviants who hid their success understood the reinforcing effect this would have on future perceivers' stereotypes. Finally, we examined the path from recovery strategies to self-esteem maintenance for gender deviants who feared backlash.

Experiment 1

Men and women competed against (and lost to) a same- or opposite-sexed confederate on a computer game task that was either masculine (football knowledge) or feminine (knowledge of children's developmental skills). The design was a 2 (target sex) × 2 (contest domain: masculine, feminine) × 2 (participant sex) between-subjects factorial. After the competition, participants were given the chance to sabotage the confederate. Following this, participants' explicit and implicit self-esteem were assessed. It was expected that people who lost the competition to counterstereo-typical targets would be more likely to engage in sabotage and that doing so would be linked to higher levels of self-esteem.

Method

Participants

Volunteers ($N = 189$; 103 women, 86 men) participated in exchange for partial credit toward their Introductory Psychology research participation requirement. Of these, 87 (46%) were White, 55 (29%) were Asian, 23 (12%) were Black, and the remaining 13% reported other ethnicities.[2]

Materials

Computerized knowledge tests. The masculine contest involved categorizing pictures of football players and words associated with football (e.g., *Left Guard*, *I-formation*, *Linebacker*, *dime*) as either "offense" or "defense." The feminine contest involved categorizing pictures of toddlers and development skills (e.g., *teething*, *toilet training*, *self-recognition*) as either "under one-year-old" or "over one-year-old."

Sabotage measure. Following their loss to the confederate, participants were asked to "help the experimenter" (while she or he ostensibly interviewed the winner) by programming the qualification round, which involved selecting clues for the confederate's upcoming task. The task was modeled after the "Gibberish Question" portion of "You Don't Know Jack" (Berkeley Systems, 1996), a popular computer game. It consists of nonsensical sentences that rhyme with common sayings. Participants received the gibberish question and its answer and were told that the confederate had to type in the correct answer within 30 s in order to score points. Participants were instructed to choose only one clue from a list of three possible clues to present to the confederate for each of 12 gibberish questions. The clues were selected on the basis of pretesting to vary in their helpfulness from low to high. A sample question was "poor sores canned heaven fears you go" (the answer is "four score and seven years ago"). The following clues were provided: "It's about the passage of time" (unhelpful), "It's a famous beginning" (medium), and "It's the start of a famous speech by Abraham Lincoln" (helpful). The clues (which were unlabeled and presented in random order) were subsequently scored on a scale from 1 (*helpful*) to 3 (*unhelpful*) and summed to form the sabotage index (possible range 12–36, $\alpha = .68$).

Self-esteem measures. Participants first completed the Self-Esteem Implicit Association Test (IAT; Greenwald & Farnham, 2000). As in past research, we used target constructs related to the self (*I*, *me*, *mine*) or others (*it*, *they*, *them*) and pleasant versus unpleasant attributes (e.g., *smile*, *vacation*, *pain*, *disaster*). In addition, block order was counterbalanced such that half of the participants performed the self + pleasant task first, whereas the other half performed the self + unpleasant task first (a procedural variable that did not affect results). The IAT effect was formed by subtracting response latencies for the self + pleasant tasks from the self + unpleasant tasks.[3] On average, participants showed robust implicit self-esteem ($M = 246$ ms, $SD = 215$), resulting in a large effect size (Cohen's $d = 1.14$). By convention, small, medium, and large effect sizes correspond to .20, .50, and .80, respectively (Cohen, 1988). As in past

research (for a review, see Mierke & Klauer, 2003), the Self-Esteem IAT showed adequate internal consistency, as evidenced by a split-half correlation ($r = .86$). In addition, participants completed the Self-Esteem Scale (SES; Rosenberg, 1979) on a 6-point scale. The items were well related ($\alpha = .87$) and combined to form the explicit self-esteem index, on which high scores reflect higher self-esteem.

Procedure

Each participant was admitted to the laboratory, ostensibly with another volunteer (in fact, a male or female confederate who was well practiced at both contest games). The "Psychology of Success" project was described as "examining factors that help or hinder people when they compete under time pressure." The experimenter explained that they would compete in a two-phase contest. In Phase 1, the elimination round, the subject and confederate would compete against each other on a computerized knowledge test. In Phase 2, the winner of the elimination round would go on to compete in the qualification round (the gibberish question phase). If he or she scored high on this task (i.e., at least the 80th percentile), they would be entered in a $100 cash prize drawing. The loser of the elimination round would help the experimenter set up Phase 2 and would then complete a separate survey. The experimenter then asked the participant to select a topic seemingly at random for the elimination round's contest topic by picking a slip of paper from a box with many folded slips (in fact, the slips contained the same randomly assigned topic).

Participants were then escorted to separate cubicles and administered precontest measures designed to bolster the cover story.[4] All measures were administered on a standard desktop PC, using the psychological software program Inquisit (Draine, 2002). The program randomly presented items within each measure. Contestants were then brought together for the computerized knowledge test, which they performed on the same PC. They each received one practice round before competition began (to decrease suspicion, the confederate made mistakes during the practice round). The computer program seemingly randomized competition order, but the confederate always went first. This was to eliminate any concerns that the confederate had an advantage by having previewed the test. To underscore the confederate's victory, contestants recorded their final scores and gave the information to the experimenter, who congratulated the winner. Contestants were then separated, ostensibly so that each could prepare for the second phase of the experiment.

At this point, participants (as the eliminated "losers") were asked to select clues for the confederate's qualification round (in fact, the sabotage task). The computer program explained the nature of the gibberish question task and gave an example. It then presented the first gibberish question, the correct answer, and the three clues available for that question. Participants then chose one of the clues (in full knowledge of the correct answer). This procedure continued until participants had chosen one clue for each of 12 gibberish questions.

Participants were then escorted to a private booth where they completed the Self-Esteem IAT and the SES (in that order). Following this, partici-

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[2] Of the initial 212 participants, 8 were excluded for having won the contest, 12 were excluded for failing to pass manipulation checks (e.g., they incorrectly reported they had won or misreported the confederate's gender), and 3 were excluded for failing to follow instructions. Attrition was unrelated to the primary independent variables (contest, target sex, and participant sex) or their interactions (all Fs < 1.12, *ns*).

[3] We combined practice with critical blocks, which renders the IAT less susceptible to task counterbalancing effects (Greenwald, Nosek, & Banaji, 2003).

[4] These included a measure of their typical performance under pressure and their interest in the contest topic. Because these measures did not influence results, they are not discussed.

Table 1
Backlash as a Function of Target Deviance and Target Sex (Experiments 1 and 2)

| | Deviant targets | | | | Normative targets | | | |
| | Female | | Male | | Female | | Male | |
Measure	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
				Experiment 1				
Sabotage	21.62$_a$	6.47	20.70$_a$	6.27	18.48$_b$	4.55	18.13$_b$	4.21
Men	22.00$_a$	6.97	20.57$_a$	5.89	17.80$_b$	4.34	17.40$_b$	3.94
Women	21.23$_a$	6.06	20.90$_a$	5.18	17.58$_b$	3.23	18.72$_b$	3.45
				Experiment 2				
Sabotage	22.28$_a$	3.90	22.20$_a$	4.70	20.29$_b$	3.71	20.09$_b$	3.89
Likeability	3.17$_a$	1.83	3.20$_a$	1.80	3.40$_a$	1.62	3.37$_a$	1.48
Competence	3.58$_a$	1.57	3.52$_a$	1.74	3.52$_a$	1.53	3.47$_a$	1.27

Note. Means within rows not sharing a subscript differ at the $p < .08$ level or higher.

pants reported whether they had won or lost the contest, whether their competitor was male or female, and whether the topic of the knowledge test was football or children (used for screening purposes). Finally, participants were probed for suspicion (no one was eliminated on this basis) and received a partial debriefing. To counter any possible detrimental effects of having lost the contest, the partial debriefing explained that participants were at a disadvantage when they performed the elimination round (i.e., that they had played against confederates who were trained to perform well). As a result, they were given the opportunity to enter a lottery drawing for the $100 prize. All participants did so, and the prize was bestowed after the project was over. Further, all participants received a full debriefing (via e-mail) after the project was over explaining that we were interested in whether gender deviants would be sabotaged more than normatives.

Results and Discussion

Stereotypicality of the Contest Domains

To check on the stereotyped expectancies for each contest, we asked a separate group of participants ($N = 131$; 62 women, 69 men) to perform either the football or knowledge of children's developmental skills contests (described below). They then responded to two items, "What percentage of men [women] would you expect to perform well on this task?" These were submitted to a 2 (gender expectancy) $\times$ 2 (contest) $\times$ 2 (participant sex) repeated-measures analysis of variance (ANOVA). Results showed main effects for contest and expectancy, qualified by a robust Expectancy $\times$ Contest interaction, $F(1, 121) > 100.00$, $p < .001$. Simple effects confirmed that men were expected to outperform women in the masculine contest (Ms = 50.25 vs. 27.78, SDs = 10.70 and 10.54, respectively), $t(63) = 15.50$, $p < .001$ ($d = 1.73$), whereas women were expected to outperform men in the feminine contest (Ms = 51.21 vs. 39.54, SDs = 9.53 and 12.71, respectively), $t(66) = 7.83$, $p < .001$ ($d = 2.07$). Because the masculine contest was stereotyped more than the feminine contest, we might expect greater sabotaging for female, compared with male, deviants in Experiment 1.

Preliminary Analyses

In all, there were nine confederates (four male, five female). One-way ANOVAs were conducted within target sex to determine possible confederate effects on our dependent variables. Results showed no reliable differences for male confederates, all Fs(3, 94) < 1.17, *ns*, and female confederates, all Fs(4, 86) < 1.00. We therefore collapsed across this variable for the remaining analyses.

Backlash for Gender Atypicality

A key question was whether successful deviant targets would be sabotaged more than typical targets. Results of a 2 (contest) $\times$ 2 (target sex) $\times$ 2 (participant sex) ANOVA showed only the expected Contest $\times$ Target Sex interaction, $F(1, 180) = 9.83$, $p < .01$. No other effects were reliable (all Fs < 3.12, ps $> .06$). As can be seen in the top half of Table 1, women were sabotaged more if they succeeded in the masculine compared with the feminine domain, $t(88) = 2.67$, $p < .01$ ($d = .57$). In addition, men who succeeded in the feminine domain were marginally more likely to be sabotaged compared with the masculine domain, $t(96) = 1.79$, $p = .07$ ($d = .35$). Further, women were sabotaged more than men in the football contest, $t(87) = 2.50$, $p = .01$ ($d = .61$), and men were sabotaged more than women in the children's knowledge contest, $t(97) = 1.99$, $p = .05$ ($d = .40$). Although the results were somewhat stronger for female deviants, the overall pattern supports our expectation that perceivers would feel justified in undermining atypical targets. The results also, for the first time, expand the scope of backlash effects to include sabotage. These findings indirectly support our model's contention that backlash serves to bolster cultural stereotypes by hindering the success and visibility of atypical exemplars.

Although the overall analyses did not indicate an influence of participant sex, Table 1 shows the sabotage means separately for men and women.[5] In part, these analyses were conducted to determine whether the self-relevance of the task played a role in sabotage (Tesser & Smith, 1980). As can be seen, the results are consistent with those for the main analyses. The absence of subject sex effects coheres with findings from past backlash research, which have shown that social sanctions for gender deviants are

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[5] For these analyses, we removed 1 male outlier in the normative female condition ($z = 3.14$).

similarly engaged in by men and women. For example, prior research has not found greater backlash toward agentic women vying for a masculine management job or communal men vying for a feminized management job on the part of male and female perceivers, respectively (e.g., Rudman & Glick, 1999, 2001). Perhaps this is because gender stereotypes are central to gender identity, which both men and women strongly possess (e.g., Rudman, Greenwald, & McGhee, 2001). In any event, task self-relevance appears to be relatively unimportant when predicting backlash compared with expectancy violation.

Psychological Consequences of Sabotage

The second key question concerned whether people who sabotaged deviants might show high self-esteem, whereas those who sabotaged typical targets might show low self-esteem. To test for the expected Contest × Target Sex × Sabotage effect on self-esteem, we used contrast coding for the dichotomous variables, standardized all variables, and then separately regressed explicit and implicit self-esteem hierarchically on contest (-1 = masculine, 1 = feminine), target and participant sex (-1 = male, 1 = female), sabotage scores, and their interactions. Results for explicit self-esteem showed a negative main effect for sabotage ($\beta = -.17$, $p < .05$), qualified by the expected three-way interaction ($\beta = -.24$, $p < .01$). Results for the Self-Esteem IAT showed a positive main effect for sabotage ($\beta = .20$, $p < .05$), qualified by the expected three-way interaction ($\beta = -.15$, $p < .05$).[6] No other effects were reliable in each analysis (all $ps > .17$).

To ascertain the nature of the three-way interactions, we correlated sabotage with implicit and explicit self-esteem separately for participants who lost to deviants or normatives. Table 2 shows the results. As can be seen, people who sabotaged gender deviants showed greater implicit self-esteem, which was not matched by participants who lost to normative targets. The difference between

these two relationships ($rs = .54$ and $.01$) was significant ($z = 3.99$, $p < .001$). By contrast, people who sabotaged normative targets showed less explicit self-esteem, which was not matched by people who sabotaged gender deviants. The difference between these two correlations ($rs = .16$ and $-.37$) was also significant ($z = 3.72$, $p < .001$). The bottom of Table 2 repeats these analyses as a function of target sex. As can be seen, these findings echoed those for the entire sample. The focal relationship comparisons (i.e., between deviant and normative targets) were significant for male targets (both $zs > 1.97$) as well as female targets (both $zs > 2.15$, all $ps < .05$).

Table 2 suggests, for the first time, a possible benefit for backlash. At the implicit level, sabotaging deviants was associated with higher self-esteem, whereas sabotaging normatives was not. At the explicit level, sabotaging deviants had no effect on self-esteem, whereas sabotaging normatives was associated with lower self-worth. Thus, sabotage had differential effects on self-esteem that depended on whether people lost to deviant or normative competitors. These results suggest that undermining others is not a generalized self-esteem maintenance strategy but, instead, depends on whether it is perceived as justified (see also Branscombe & Wann, 1994; Zadro & Williams, 1998). In the present context, losing the contest was not sufficient to justify sabotage; instead, and consistent with Figure 1, the competitor had to also violate expectancies.

In sum, Experiment 1's focal findings were that deviants were more likely to be sabotaged compared with normatives and that saboteurs defeated by deviants showed stronger implicit (but not explicit) self-esteem. Although we expected similar effects for the IAT and the SES, the latter is a trait measure of self-esteem, which may have rendered it somewhat insensitive to the manipulations, compared with the IAT (which has shown contextual effects in the past; for a review, see Blair, 2002). Moreover, we administered the IAT in advance of the SES, which may have reduced the latter's ability to reflect our manipulations. Experiment 2 substituted the State Self-Esteem Scale (SSES; Heatherton & Polivy, 1991) to test whether an explicit measure that is sensitive to context might reveal greater self-worth for perceivers who sabotage deviants. We also included target ratings (likeability and competence) as additional backlash measures, with the expectation that state self-esteem would be higher for people who devalued deviants compared with those who devalued normatives.

Table 2
Correlations as a Function of Target Deviance (Experiment 1)

Measure	Deviant targets		Normative targets	
	Sabotage	SE IAT	Sabotage	SE IAT
All targets				
SE IAT	.54**	—	.01	—
Explicit SE	.16	.23*	−.37**	−.06
Male targets				
SE IAT	.53**	—	−.21	—
Explicit SE	.07	.13	−.33*	.17
Female targets				
SE IAT	.54**	—	.13	—
Explicit SE	.27	.30*	−.41*	−.24

Note. High scores reflect high trait self-esteem (SE) and willingness to sabotage targets. For the entire sample, $n = 98$ in the deviant target condition, and $n = 91$ in the normative target condition. For male (and female) targets, $ns = 53$ (44) in the deviant target conditions, and $ns = 45$ (46) in the normative target conditions. IAT = Implicit Association Test.
* $p < .05$. ** $p < .01$.

Experiment 2

Experiment 1 found that deviants were sabotaged more than normatives were, suggesting that counterstereotypical targets would be more likely to fail and hence less likely to influence future perceivers' stereotypes. Experiment 2 more directly examined this hypothesis to test the role of backlash in stereotype maintenance. Specifically, we checked on whether perceivers were aware that sabotage would decrease deviants' visibility and thereby allow future perceivers' stereotypes to remain intact (i.e., unchallenged). We also made the contests more gender specific (i.e., assessing masculine and feminine knowledge). We did this

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[6] There was also an atheoretical Contest × Participant Sex interaction that is not discussed ($\beta = .22$, $p < .01$).

for the sake of generalizability but also because the effect sizes for sabotage were larger for deviant female, compared with male, confederates in Experiment 1, perhaps because the masculine task was more stereotyped than was the feminine task. To enhance experimental control, we switched to a phantom confederate protocol so that all participants would receive the same feedback about how they and their (successful) competitor scored. Finally, as noted above, we provided a second check on self-esteem maintenance in the wake of backlash effects (using a state measure of self-esteem).

Method

Participants

Volunteers ($N = 191$; 104 women, 87 men) participated in exchange for partial credit toward their Introductory Psychology research participation requirement. Of these, 93 (48%) were White, 55 (29%) were Asian, 22 (11%) were Latino, 13 (7%) were Black, and the remaining 5% reported other ethnicities.[7]

Materials and Procedure

Computerized gender knowledge tests. The masculine knowledge test included 30 items about cars and motorcycles, sports, finance, weapons, and physical violence (e.g., the best way to punch an opponent). The feminine knowledge test included 30 items about beauty, fashion, women's health issues, cooking, and dating etiquette. The tests purported to assess knowledge that "society expects college-aged men [women] to possess." In reality, they were designed to assess fairly obscure knowledge so that participants would believe the false feedback (i.e., be unable to ascertain their true score). For example, the masculine test required identifying the first people to use flamethrowers in battle (Turks or Greeks) whereas the feminine test required identifying the first company to invent hair coloring (L'Oreal or Clairol). The Appendix contains the test items.

Experiment 1's measures. As in Experiment 1, participants reported the outcome of the contest, the contest topic, and the gender of the confederate (used for screening purposes). They also completed Experiment 1's sabotage task ($\alpha = .78$).

Target ratings. Targets' likeability and competence were rated on scales ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The likeability index averaged ratings of targets' similarity to the self, participants' willingness to befriend them, and their desire for future interaction ($\alpha = .73$). The competence index ($\alpha = .82$) averaged ratings of the targets' knowledge about the contest topic, their contest skill level, and whether their success was attributable to luck (reverse coded). It should be noted that these indexes differ from past research because without the benefit of witnessing or interacting with targets, it would be impossible to rate them on the usual scales (e.g., friendliness and warmth for likeability, confidence and ambition for competence; cf. Rudman & Glick, 1999). Nonetheless, we included them to see whether rating deviant targets low on these indexes might predict higher state self-esteem.

State self-esteem. To shorten the SSES (Heatherton & Polivy, 1991), we used only the Performance and Social subscales ($n = 14$ items). Sample items include "I feel confident about my abilities," "I feel inferior to others at this moment," and "I feel displeased with myself." Responses ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). After appropriate recoding, we averaged these items to form the self-esteem index ($\alpha = .88$).

Sabotage cognizance index. Participants indicated whether they were aware of the impact of sabotage on targets' future success on scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The measure consisted of three items ("I tried to make the qualification round difficult for my competitor," "I expect my competitor will not do well in the qualification round," and "I would be surprised if my competitor wins the cash prize"),

which were averaged to form the cognizance index ($\alpha = .82$), on which high scores indicate greater awareness that sabotage would undermine targets' future success. Thus, scores should be higher to the extent that people sabotaged targets, irrespective of their deviance.

Stereotype maintenance. Participants learned that a future participant would meet the winner of the qualification round in order to play an advanced version of the same gender knowledge test; this final round would determine the winner of the cash prize (see *Procedure* section, below). In this context, participants estimated the stereotypic expectancies of this future participant after the contest was over, on two items. Specifically, they were asked, "What percentage of men [women] would he or she expect to do well on the male [female] gender knowledge test?" We then computed a difference score to form the projected stereotype index, on which high scores reflect that men would be expected to outperform women on the masculine test, whereas women would be expected to outperform men on the feminine test. The goal was to assess perceivers' awareness of the model's assumption that sabotaging atypical targets would maintain (rather than challenge) stereotypic expectancies on the part of future competitors.

Procedure

The procedure closely followed Experiment 1's, with five exceptions. First, participants were told that "because physical attractiveness can influence competitions," we were isolating competitors. To create the impression that phantom confederates were seated at computers located down a back hallway, experimenters brought participants through a separate entrance into the lab, where they saw evidence of phantoms (e.g., books and coats) on a table in the entryway before being escorted to their separate cubicles. The experimenter then explained that we were interested in the effects of "knowing something about competitors" on performance and that the networked computers would randomly assign competitors to the same condition (maximal information, minimal information, or no information). He or she then started the program. In reality, the condition was always "minimal," and participants entered their first name, college major, and hometown when prompted to do so. To heighten the cover story, when participants indicated they were ready for the exchange of information, the computer responded that their competitor was still working on it and instructed participants to complete filler measures while they waited (e.g., assessment of their competitiveness). The information was then "exchanged" so that participants learned of the phantom's gender (Michael or Michelle), college major ("psychology??"), and hometown (Madison, WI). Second, they learned of the elimination and the qualification rounds (as in Experiment 1), but in this case, the former involved gender knowledge tests. Third, they were told that the winner of the qualification round would compete in a final contest (involving an advanced version of the same gender knowledge test) and that the victor would receive a cash prize. The gender knowledge test was then randomly assigned (masculine or feminine), and a brief description was provided before its administration. Fourth, test feedback consisted of all participants and phantoms scoring in the 38th and 96th percentiles, respectively, accompanied by an explanation (e.g., "This means that 38 out of 100 participants scored lower than you did"). Finally, participants (as losers of the elimination round) completed the sabotage task, target ratings, the SSES, the sabotage cognizance index, and the projected stereotype measure (in that order). They were then fully debriefed. In all other respects, Experiment 2 followed Experiment 1's protocol.

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[7] Of the initial 200 participants, 3 were excluded for misreporting the phantom confederate's gender, and 6 were excluded because of technical problems.

Results and Discussion

Stereotypicality of the Contest Domains

To check on the stereotyped expectancies for each contest, we asked a separate group of participants ($N = 128$; 69 women, 59 men) to perform either the masculine or feminine knowledge contests. They then separately indicated the percentage of men and women expected to perform well, using an open-ended measure. These were submitted to a 2 (gender expectancy) $\times$ 2 (contest) $\times$ 2 (participant sex) repeated-measures ANOVA. Results showed a large Expectancy $\times$ Contest interaction, $F(1, 124) > 100.00, p < .001$. Simple effects confirmed that men were expected to outperform women in the masculine contest ($Ms = 56.20$ vs. 33.10, $SDs = 9.10$ and 10.80, respectively), $t(61) = 15.09, p < .001$ ($d = 1.87$), whereas women were expected to outperform men in the feminine contest ($Ms = 54.00$ vs. 27.70, $SDs = 10.80$ and 12.90, respectively), $t(65) = 16.92, p < .001$ ($d = 2.07$). Because the tests were similarly stereotyped, we should expect comparable sabotage effect sizes for male and female deviants in Experiment 2.

Sanctions for Gender Deviance

Sabotage. Results of a 2 (contest) $\times$ 2 (target sex) $\times$ 2 (participant sex) ANOVA showed the expected Contest $\times$ Target Sex interaction for sabotage, $F(1, 183) = 13.47, p < .001$. No other effects were reliable (all $Fs < 2.01, ns$). As can be seen in the bottom half of Table 1, women were sabotaged more if they succeeded in the masculine compared with the feminine contest, $t(96) = 2.58, p = .01$ ($d = .47$), whereas men were sabotaged more if they succeeded in the feminine compared with the masculine contest, $t(91) = 2.34, p < .05$ ($d = .51$). Further, in the masculine contest, women were sabotaged more than men, $t(91) = 2.71, p < .01$ ($d = .53$), whereas men were sabotaged more than women in the feminine contest, $t(96) = 2.23, p < .05$ ($d = .46$). These results extend Experiment 1's support for the model's assumption that atypical men and women are likely to be sabotaged when the context justifies it. They also suggest that when expectancy violation is matched, sabotage is as likely for male as it is for female deviants.

Target ratings. As noted, the likeability and competence indexes were designed to be more appropriate for phantom targets, resulting in different measures from those used in the past. Therefore, female and male deviants might not be rated as unlikable or incompetent, respectively, as prior research has shown. Indeed, the Contest $\times$ Target Sex $\times$ Participant Sex interaction was negligible for each measure, both $Fs(1, 83) < 1.00$ (see Table 1), and the remaining effects were unreliable, all $Fs(1, 83) < 3.51, ps > .05$. Although the likeability and competence indexes were poor backlash indicators, they were primarily included for use in the self-esteem analyses.

Psychological Consequences of Backlash

In Experiment 1, sabotaging deviants was not reliably linked to explicit self-esteem (although it predicted the IAT), perhaps because we used a trait measure or because the IAT was performed in advance. Experiment 2 administered the SSES immediately after the sabotage and target ratings tasks to reexamine potential

explicit benefits of sabotage. After preparing the variables (as in Experiment 1), we regressed SSES scores hierarchically on contest, target sex, sabotage, participant sex, and their interactions. Results for sabotage were promising in their showing the expected Contest $\times$ Target Sex $\times$ Sabotage interaction ($\beta = -.48, p < .001$).

Comparable analyses replaced sabotage with the likeability and competence indexes in separate regressions. Results involving likeability showed a negative main effect for the likeability index ($\beta = -.12, p < .05$), qualified by a robust Contest $\times$ Target Sex $\times$ Likeability interaction ($\beta = -.65, p < .001$). Results involving competence showed a negative main effect for the competence index ($\beta = -.40, p < .001$) but also a marginal Contest $\times$ Target Sex $\times$ Competence interaction ($\beta = .13, p < .07$). Across the three analyses, no other effects were reliable, including those involving participant sex (all $ps > .13$).

To illustrate the nature of the three-way interactions, we correlated sabotage, likeability, and competence with state self-esteem, separately for participants who lost to deviants and normatives. To better compare sabotage with target ratings, we recoded the latter so that high scores would indicate rating targets as unlikable and incompetent. Table 3 shows the results. As can be seen, people who sabotaged gender deviants showed greater state self-esteem, whereas people who sabotaged normative targets showed less self-regard. The difference between these two relationships ($rs = .48$ and $-.53$) was significant ($z = 7.49, p < .001$). Results for the unlikable index echoed the findings for sabotage. The difference between these two relationships ($rs = .38$ and $-.49$) was also reliable ($z = 6.35, p < .001$). Somewhat surprisingly, both groups showed greater self-esteem if they rated targets as incompetent, but this effect was somewhat enhanced by targets' deviance, as indicated by the marginal three-way interaction. That is, the difference between the relationships for people reacting to deviants and normatives ($rs = .51$ and $.26$) was marginally significant ($z = 1.96, p = .05$). Taken together, Table 3's results are consistent with the model's assumptions that backlash (i.e., sanctions for counterstereotypicality) can provide explicit psychological benefits for perceivers.

To examine their interdependence, we also correlated the sabotage, unlikable, and incompetence indexes separately for the

Table 3

Correlations as a Function of Target Deviance (Experiment 2)

Measure	SSES	Sabotage	Unlikable
Deviant targets ($n = 100$)			
Sabotage	.48**	—	
Unlikable	.38**	.44**	—
Incompetent	.51**	.27**	.62**
Normative targets ($n = 89$)			
Sabotage	−.53**	—	
Unlikable	−.49**	.37**	—
Incompetent	.26*	−.26*	.07

Note. High scores reflect greater state self-esteem or willingness to rate targets as unlikable or incompetent. SSES = State Self-Esteem Scale.
* $p < .05$.   ** $p < .01$.

deviant and normative target conditions (see Table 3). Results for perceivers defeated by deviant targets showed positive correlations among these indexes. Results for perceivers defeated by normative targets showed less consistency. Perceivers who sabotaged tended to view normatives as unlikable but also as competent (i.e., knowledgeable about the contest target); moreover, target ratings were virtually independent.

Stereotype Maintenance

Projected stereotype index. A major objective of Experiment 2 was to test the model's assumption that backlash for countersterreotypicality would reinforce stereotypes in the culture at large. If so, people who sabotaged deviants should expect a future perceiver to maintain their stereotypes postcontest (because they would be deprived of the opportunity to encounter a deviant), compared with perceivers less likely to engage in backlash. To test this hypothesis, we regressed the projected stereotype index hierarchically on contest, target sex, sabotage, participant sex, and their interactions.

Results showed the anticipated three-way interaction ($\beta = .34$, $p < .001$). No other effects were reliable (all ps > .18). In the deviant target condition, projected stereotyping was greater to the extent that perceivers engaged in sabotage, $r(98) = .57$, $p < .001$. In the normative target condition, there was only a weak negative effect of sabotage on projected stereotyping, $r(89) = -.12$, $p = .24$. These findings suggest that perceivers were aware of the impact of sabotaging deviants on future participants' stereotypic expectancies. Thus, the role of backlash in cultural stereotype maintenance was supported.

Sabotage cognizance index. Were perceivers aware that sabotage would undermine their competitors' ability to perform well during the qualification round, thereby hindering their chance to win a cash prize? We expected this index to yield only a main effect for sabotage, and results of a regression analysis identical to the one above were supportive. As expected, people who sabotaged were also less optimistic about their competitor's future success ($\beta = .37$, $p < .001$). No other effects were reliable (all ps > .07). Taken together, perceivers appeared to understand the implications of sabotage for targets' future success and also to recognize that by undermining deviants, future perceivers would maintain their stereotypes, relative to a "hands-off" policy for atypical targets.

In sum, Experiment 2 confirmed that counterstereotypical success can invoke sabotage and that sabotage was linked to greater state self-esteem for people defeated by gender deviants. Moreover, the latter effect extended to ratings of likeability and competence. These results are consistent with the model's suggestion that punishing peers can enhance people's self-regard when targets are atypical. In addition, Experiment 2 supported the model's assumption that backlash can preserve cultural stereotypes in its observation that people who sabotaged deviants expected future perceivers to show gendered beliefs.

Experiment 3

Pilot Study

In Experiment 3, similar to past research, deviance was instantiated as success in a cross-gendered domain (Cherry & Deaux, 1978; Yoder & Schleicher, 1996), but uniquely, we focused on actors' reactions to their own counterstereotypical behaviors (i.e., the bottom row of Figure 1). A critical question concerned whether gender deviance would invoke fear of backlash in men and women alike. In a pilot study (Fairchild, 2003), 182 participants (86 men, 96 women) were randomly assigned to succeed at either the male or female knowledge test. After receiving false positive feedback, they were asked to report their fear of backlash if their scores were made public (e.g., "I would worry that I would be labeled negatively"). They were also provided with the chance to publicize their success. Results supported our model in that both men and women who feared backlash were likely to hide deviant behavior by refusing to publicize their gender knowledge scores. However, deviant men were more likely to fear backlash than were deviant women, suggesting that men were more threatened by mastery of a cross-sexed domain. Indeed, women may actually aspire to masculine abilities, given their association with greater competence and status (e.g., Rudman & Glick, 1999). If so, women may have presumed that their masculine and feminine knowledge was high (i.e., that they were androgynous). In Experiment 3, we sought to undermine the androgynous buffer for deviant women by delivering feedback indicating they were high on masculine but low on feminine knowledge.

Overview of Experiment 3

Ostensibly to increase performance motives, Experiment 3 was described as an experiment-wide contest in which people who scored high on the gender knowledge tests would be eligible for a cash prize lottery. Participants were led to believe they had performed either exceptionally well on a cross-sexed but poorly on a same-sexed knowledge test (the deviance condition) or that they had performed exceptionally well on a same-sexed but poorly on a cross-sexed knowledge test (the normative condition). The design was a 2 (deviance: high, low) × 2 (participant sex) between-subjects factorial, with all participants receiving success feedback (and the opportunity to publicize their success) prior to failure feedback.

In line with the bottom row of Figure 1, we expected male and female gender deviants to fear social reprisals (i.e., backlash) more than their normative counterparts. We also expected backlash to predict (a) hiding gender deviance from others, including the use of deception, and (b) increased gender conformity. These results would support our hypothesis that fear of backlash promotes cultural stereotype maintenance. To provide a direct test of the stereotype preservation assumption, we asked participants to estimate the stereotypes of future visitors to a hypothetical Web site that publicized the gender knowledge contest winners. We predicted that gender deviants who closeted their success would estimate stronger stereotypes on the part of future perceivers compared with deviants who did not. With respect to self-esteem, sociometer theory predicts that people who fear social rejection should suffer a blow to their self-regard, irrespective of deviance (Leary & Baumeister, 2000). However, the model presumes that deviants who engage in recovery strategies should be less psychologically impacted compared with deviants who do not.

Method

Participants

Two hundred fifty volunteers (114 women, 136 men) participated in exchange for partial credit toward their Introductory Psychology research participation requirement. Of these, 134 (54%) were White, 54 (22%) were Asian, 24 (10%) were Latino, 15 (6%) were Black, and the remaining 8% reported other ethnicities. Of the original 266 volunteers, 4 were eliminated for technical reasons and 12 for being homosexual.

Stimulus Materials

The gender knowledge tests. All participants completed both of Experiment 2's gender knowledge tests. Success feedback consisted of a score in the 96th percentile, whereas failure feedback consisted of a score in the 38th percentile.

Hiding success. Participants were asked if they would be willing to publicize their successful score on (a) a hypothetical Gender Knowledge Contest Web site and (b) the "winners' screen" in the lab. The winners' screen (which participants viewed before taking each test) showed seven gender-appropriate names in large, bold-faced type. For this measure, participants were offered the options 1 (*yes, using my full name*), 2 (*yes, using my first initial and my last name*), and 3 (*no, I would not like to be listed*). For the Web site measure, participants were offered the options 1 (*yes, using my name and photo*), 2 (*yes, using my first initial and my last name*), and 3 (*no, I would not like to be listed*); participants were informed that if they chose Option 1, the experimenter would take their picture using a digital camera. At the conclusion of the session, the experimenter met the participant with a digital camera and asked if he or she would be willing to publish their success with their name and photo. Responses were coded as 1 (*yes*), 2 (*no*), and 3 (*yes, but misreported the test they had scored high on*). (Five participants, all deviants, misreported success on the own-sexed test and agreed to the request.) For those who agreed, a photograph was taken. This measure was combined with participants' refusal to publicize their scores on the Web site and the winners' screen in the lab to form the hiding index ($\alpha = .74$).

Deception. As intimated above, we also gave people the chance to hide by (falsely) claiming to have succeeded in the wrong test condition. Following success feedback, all participants were told by the computer that they were eligible for the appropriate (male or female) lottery and that they could fill out a drawing slip at the end of the session (the lottery winner would receive a cash prize). At the end of the session, the experimenter then asked each participant if they were eligible for the lottery (all participants said they were) and, if so, which test they had succeeded on (1 = *correct test*, 2 = *incorrect test*). This formed the public response measure. The experimenter (blind to condition) then handed them a (subtly marked) lottery ticket to fill out and place in the appropriate box located away from public view (1 = *correct box*, 2 = *incorrect box*). This formed the private response measure. Because public and private reactions were highly related, $r(248) = .74$, $p < .001$, they were combined to form the deception index.

State self-esteem. As in Experiment 2, the SSES showed adequate reliability ($\alpha = .86$).

Fear of backlash. We asked participants to imagine their success was publicized and to indicate their reactions on a scale ranging from 1 (*not at all*) to 6 (*very much so*). Examples of the 11-item scale include "Would you worry about being labeled negatively?"; "Would you be afraid that others would think you were odd?"; "Would your friends be likely to (negatively) tease you?"; and "Would you be afraid that you might be disliked?" These were averaged to form the fear of backlash index, on which high scores indicated greater threat ($\alpha = .87$).

Gender conformity. Participants rated their interest in 12 occupations and 12 sports that were masculine, feminine, or gender neutral (4 per category) on a scale ranging from 1 (*no interest*) to 7 (*strong interest*). Job

choices were traditionally masculine (military officer, professional athlete), feminine (fashion model, social worker), or gender neutral (novelist, film actor). Likewise, sports choices were masculine (boxing, football), feminine (softball, gymnastics), or gender neutral (tennis, volleyball). Participants were instructed to "pretend you have absolutely no barriers, physical or otherwise, to working [participating] in the following occupations [sports]" before they made their ratings. The masculine and feminine jobs and sports choices each showed adequate reliabilities (all αs > .68) and were separately averaged (neutral choices were filler). Because interest in masculine jobs and sports was related, as was interest in feminine jobs and sports (both rs > .60, ps < .001), we averaged them to form separate masculine and feminine interest indexes. The gender conformity index was a difference score, computed separately for men and women, such that high scores indicated greater interest in own-sexed compared with opposite-sexed activities.

Stereotype maintenance. After being reminded of the test they scored high on, participants estimated the stereotypic expectancies of future visitors to the Web site (that ostensibly advertised the top scorers) for that test on two items. Specifically, after being reminded of the Web site's purpose, they were asked, "What percentage of men [women] would future visitors to the Gender Knowledge Contest Web site expect to do well on the male [female] gender knowledge test?" As in Experiment 2, we computed a difference score to form the projected stereotype index, on which high scores reflected greater estimates of stereotyping for future Web site visitors. The goal was to assess deviant actors' awareness of the model's assumption that by hiding their atypicality, they would preserve (rather than challenge) stereotypic expectancies on the part of future perceivers.

Procedure

On entering the lab, subjects were randomly assigned to deviance condition. They were then escorted to private cubicles, where they completed the gender knowledge tests (and most of the dependent measures) on a desktop PC, using the Inquisit program. Before taking each test, participants saw a "winners' screen" on their PC monitor that announced seven unambiguously male [female] winners for the masculine [feminine] test. After completing the first test, all participants received the success feedback and were given the opportunity to publicize their success on the winners' screen in the lab and the hypothetical Web site. They then completed the second test and received the failure feedback. Following this, they completed the fear of backlash index (indicating their reactions to disclosure of their success). Then, ostensibly as part of a second study concerned with personality differences, we administered filler measures (e.g., the Self-Monitoring Scale), the gender conformity index, and the SSES. Participants then estimated the stereotypic expectancies of future Web site visitors for the test they scored high on (the projected stereotype measure). When they were finished, the experimenter entered their cubicle to administer the first deception measure and request a digital photo. Participants then filled out a lottery ticket and privately placed it in a box marked "Male Knowledge Test Winners" or "Female Knowledge Test Winners." Finally, participants received a full debriefing.

Results and Discussion

Would Deviants Fear Backlash?

To examine whether deviants would fear social reprisals more than normatives, the fear of backlash index was submitted to a 2 (deviance: high, low) × 2 (participant sex) ANOVA. Results showed a main effect for deviance, $F(1, 246) = 37.65$, $p < .001$. On average, deviants ($M = 2.45$, $SD = 0.75$) feared backlash more than normatives ($M = 1.89$, $SD = 0.55$), resulting in a reasonably large effect size ($d = .75$). There was also a significant Deviance × Participant Sex interaction, $F(1, 246) = 6.94$, $p < .01$.

Simple effects showed that deviant women ($M = 2.24$, $SD = 0.61$) were more afraid of backlash than were normative women ($M = 1.85$, $SD = 0.52$), $t(112) = 2.68$, $p < .01$ ($d = .52$), suggesting that removing the androgyny buffer for women successfully instantiated deviance. Replicating the pilot study, deviant men ($M = 2.6$, $SD = 0.77$) were more afraid of backlash than were normative men ($M = 1.93$, $SD = 0.60$), $t(134) = 5.97$, $p < .001$ ($d = 1.00$). Although results were stronger for deviant men, both men and women feared backlash when they succeeded in a cross-sexed domain compared with normative counterparts.

Recovery Strategies

Would gender deviants threatened by backlash hide their success from others, deceive others into thinking they were normative, or increase their interest in own-sexed activities? The relationships among the recovery strategies were sufficiently small (even for deviants) to warrant treating them as distinct (see Table 4). Therefore, after computing contrast scores for the dichotomous variables (and standardizing all variables in preparation), we separately regressed the hiding, deception, and gender conformity indexes on deviance ($-1 =$ normative, $1 =$ deviant), participant sex ($-1 =$ male, $1 =$ female), fear of backlash, and their interactions.

Results for hiding and deception were similar in their each showing main effects for deviance and backlash (all βs $> .16$, ps $< .01$), suggesting that deviants and people who feared social reprisals were more likely to hide and to deceive others, but these effects were qualified by the expected Deviance $\times$ Fear of Backlash effect for hiding ($\beta = .19$, $p < .01$) and for deception ($\beta = .26$, $p < .001$). Results for gender conformity showed a main effect for gender ($\beta = .27$, $p < .01$), suggesting that women were more likely to conform than men but also the expected Deviance $\times$ Fear

of Backlash effect ($\beta = .31$, $p < .001$). No other effects were reliable across the three analyses (all ps $> .19$).

To ascertain the nature of the two-way interactions, we examined the relationship between fear of backlash and the recovery indexes, separately for gender deviants and normatives. As Table 4 shows, gender deviants who feared backlash tended to hide their success and to falsely claim that they had achieved own-gendered success (both publicly, to the experimenter, and privately, by use of the lottery ticket disposal). They were also likely to show gender conformity under threat of backlash. By contrast, normatives showed negligible relationships among these measures, with the intuitive exception that if they feared social reprisals, they were less likely to show interest in same-sexed activities. Not surprisingly, the relationships between fear of backlash and each recovery strategy were reliably stronger for deviant, compared with normative, actors (all zs > 2.42, ps $< .05$). These results show an important means by which fear of backlash functions to preserve stereotypes. To the extent that people hide their counterstereotypical behavior, feign normative achievement, or redouble their efforts to conform to gender norms, gendered beliefs are allowed to persist unchallenged. Table 4 upholds the model's assumption that fear of backlash can play a significant role in this process.

Mediational analyses. According to Figure 1, the relationship between deviance and recovery strategies should be accounted for by fear of backlash. That is, defensive responses to deviance should be driven by a social threat. As noted above, hiding and deception showed reliably positive main effects for deviance; however, gender conformity did not ($\beta = .09$, *ns*). We therefore tested this assumption by submitting the hiding and deception measures to separate mediational analyses (Baron & Kenny, 1986). Figure 2 shows the results (the coefficients in parentheses reflect bivariate regressions). As can be seen in the top diagram, the initial relationship between deviance and hiding (shown in parentheses) was reduced when fear of backlash was entered into the equation. The bottom diagram shows similar results for the linkage between deviance and deception. A Sobel's (1982) test for mediation confirmed that fear of backlash reliably mediated each relationship (zs $= 4.27$ and 4.00 for hiding and deception, respectively; ps $< .001$). These findings suggest that deviants engaged in hiding and deception because they feared social reprisals, in support of the model.

Stereotype Maintenance

According to the model, gender deviants who engage in recovery strategies tend to promote cultural stereotypes (e.g., by appearing to be normative). To test this assumption, we asked participants to gauge the stereotypes of future perceivers to the Web site after they had indicated their willingness to disclose their success. We expected closeted deviants to predict greater stereotyping than deviants who publicized their actions. In theory, gender conformity (i.e., showing interest in own-sexed activities) and deception should function similarly, but in Experiment 3 gender conformity ratings were confidential, and the deception measures came after the projected stereotypes index. Thus, hiding success was the best way to test the path from recovery strategies to cultural stereotypes shown in Figure 1. To do so, we regressed the projected stereotype index hierarchically on deviance, participant sex, hiding, and their interactions. Results showed a main effect for deviance ($\beta = -.21$,

Table 4

Correlations and Means as a Function of Actor Deviance (Experiment 3)

Measure	Hiding	Deception	Conformity
	Deviant actors ($n = 130$)		
Deception	.31**	—	
Conformity	.22*	.28**	—
Fear of Backlash	.45**	.38**	.28**
M	1.82$_a$	1.14$_a$	1.40$_a$
SD	0.57	0.32	1.52
	Normative actors ($n = 120$)		
Deception	.01	—	
Conformity	−.11	.03	—
Fear of Backlash	.09	.09	−.27**
M	1.47$_b$	1.02$_b$	1.14$_a$
SD	0.40	0.12	1.25

Note. High scores reflect greater hiding of success, falsely claiming success in the opposite-sexed domain, showing interest in own-sexed (more than cross-sexed) occupations and sports, or greater fear of social reprisals (backlash) if success was publicized. Means not sharing a subscript differ between deviant and normative participants at the $p < .05$ level or smaller.
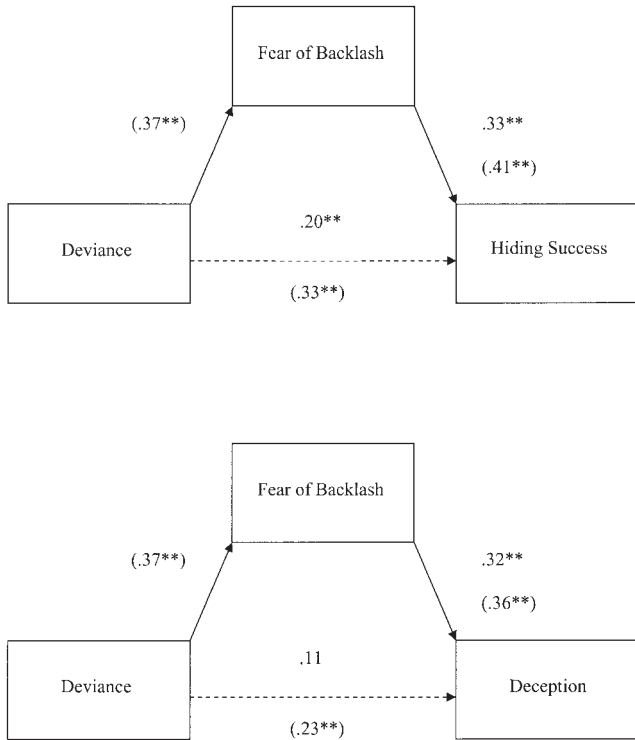* $p < .05$.   ** $p < .01$.

Figure 2. Regression analyses testing fear of backlash as a mediator of the relationship between expectancy violation (deviance) and recovery strategies (Experiment 3). The top and bottom diagrams show the results for hiding success and deception, respectively. Coefficients in parentheses reflect a bivariate analysis. A dashed arrow indicates successful mediation. **$p < .01$.

$p < .01$), suggesting that deviants were less likely to project future stereotypes, but this was qualified by the expected Deviance $\times$ Hiding interaction ($\beta = .14$, $p < .05$). No other effects were reliable (all $ps > .15$). Simple effects showed that as expected, among deviants, hiding was positively related to projected stereotypes, $r(128) = .26$, $p < .01$. That is, deviants who refused to publicize their success were more likely to estimate stereotyping on the part of future Web site visitors. Among normatives, this linkage was negligible, $r(118) = .01$, *ns*.

Mediational analysis. The above findings support our argument that hiding deviance results in cultural stereotype maintenance, but they do not show the role that backlash plays in this process. The model assumes that fear of backlash will lead to recovery strategies (i.e., hiding success) which, in turn, reinforces stereotypes. Thus, the linkage between fear of backlash and projected stereotypes should be mediated by hiding. To test this hypothesis, we first regressed deviants' fear of backlash on hiding success and found a positive effect ($\beta = .38$, $p < .01$). We then hierarchically regressed deviants' projected stereotypes on their fear of backlash and found a reliable effect ($\beta = .18$, $p < .05$), but this effect was eliminated after accounting for hiding ($\beta = .09$, $p = .33$). A Sobel's (1982) test confirmed that this reduction was reliable ($z = 2.24$, $p < .05$). By contrast, the effect of hiding on projected stereotypes remained reliable ($\beta = .23$, $p = .01$) and was similar to that shown in a bivariate regression analysis ($\beta = .26$,

$p < .01$). This result further supports the model's assumption that hiding deviance when under threat of backlash can function to maintain cultural stereotypes. Lending discriminant validity to the model, a similar analysis for normatives was not feasible because fear of social reprisals did not predict hiding, $r(118) = .12$, *ns*, and, as already noted, hiding did not predict projected stereotypes.

Effects of Recovery Strategies on State Self-Esteem

According to Figure 1, deviants who feared backlash and engaged in recovery strategies should show higher self-esteem compared with deviants who did not strategize. Because deception (administered by the experimenter) followed the SSES, our analyses predicting state self-esteem focused on hiding and gender conformity. To test the effects of hiding, SSES scores were regressed on deviance, participant sex, fear of backlash, hiding, and their interactions. A similar analysis replaced hiding with gender conformity. Results in each case showed main effects for fear of backlash (both $\beta s < -.22$, $ps < .01$), suggesting that threat of social rejection lowered state self-esteem, in line with sociometer theory (Leary & Baumeister, 2000). More important, the expected Deviance $\times$ Fear of Backlash $\times$ Hiding interaction was significant ($\beta = -.93$, $p < .05$), as was the Deviance $\times$ Backlash $\times$ Gender Conformity interaction ($\beta = .17$, $p = .05$). Across the two analyses, no other effects were reliable (all $ps > .09$).

The three-way interactions were pursued through simple effects for deviants and normatives. For deviants, results yielded two-way (Fear of Backlash $\times$ Recovery) interactions when predicting state self-esteem from hiding ($\beta = .30$, $p < .05$) and gender conformity ($\beta = .25$, $p < .05$). Results for normatives did not (both $\beta s < .07$, *ns*). In addition, deviants showed negative main effects for fear of backlash in each analysis (both $\beta s < -.22$, $ps < .05$); normatives only did so in the analysis involving hiding ($\beta = -.39$, $p < .001$). Finally, deviants showed negative main effects for hiding and conforming (both $\beta s < -.30$, $ps < .05$). Normatives showed a negative main effect for gender conformity ($\beta = -.24$, $p < .05$) but not for hiding ($\beta = -.14$, *ns*).

The top half of Figure 3 shows the results of the two-way interactions for deviants scoring two standard deviations above or below the mean on the recovery indexes (normatives are included for comparison purposes in the bottom half). Contrary to the model's predictions, deviants who hid their success or conformed to gender norms in response to fear of backlash did not show greater self-esteem. Instead, these participants tended to report SSES scores that were as low as those of their counterparts who feared backlash but did not hide or conform. As can be seen, the pattern in each case suggests that deviants low on both fear of backlash and each recovery index reported the highest self-esteem. Thus, strategically avoiding backlash did not override the detrimental effect that the threat of backlash had on self-esteem. Instead, deviants tended to engage in hiding and conformity even though these responses did not improve their self-regard.

In sum, Experiment 3's focal findings were that deviants responded defensively to fear of backlash by closeting their success, pretending to be normative, and conforming to gender norms. Because these actions guarantee the health of stereotypes, as results of the projected stereotype index confirmed, the role of backlash in cultural stereotype maintenance from the actor's per-
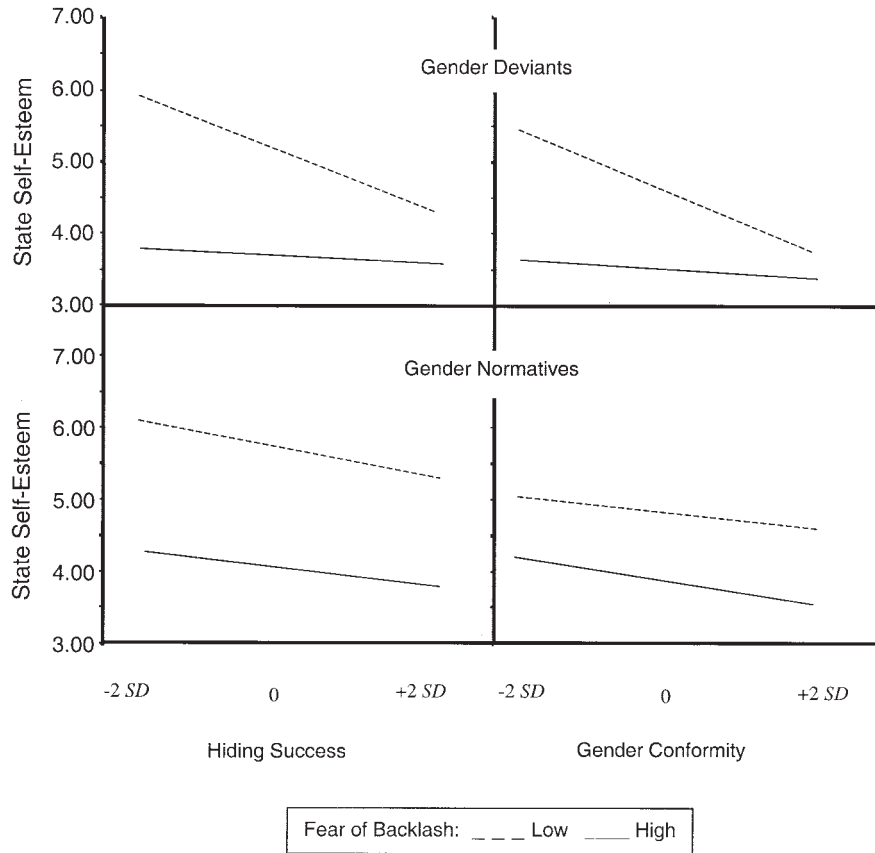
Figure 3. Regression lines predicting state self-esteem scores as a function of fear of backlash and hiding success and gender conformity (Experiment 3). The top and bottom halves show results for gender deviant (*n* = 130) and normative (*n* = 120) participants, respectively. Regression lines were estimated using unstandardized regression coefficients.

spective was supported. Additional findings were also encouraging for the model, including analyses supporting (a) fear of backlash as a mediator of the link between deviance and recovery strategies (hiding and deception) and (b) hiding success as a mediator of the link between fear of backlash and projected stereotypes. The notable exception is that the predicted positive link between re-covery strategies and self-esteem maintenance was not shown. The General Discussion takes up the implications of this finding for the bottom row of Figure 1.

General Discussion

Three experiments tested a model outlining how reactions to counterstereotypicality on the part of both perceivers and actors may promote cultural stereotype preservation. Although impres-sion formation theorists differ in many respects, they agree that counterstereotypical targets move perceivers away from stereo-typic judgments (Brewer, 1988; Fiske & Neuberg, 1990; Kunda & Thagard, 1996). In theory, if perceivers could only be motivated to attend to people's atypical attributes, the widespread belief in (and use of) stereotypes might be hindered. However, the present re-search shows that this roadmap can be rocky. Although stereotype

violators should function as dilutors of cultural stereotypes, back-lash effects may stand in their way.

Perceivers' Reactions to Counterstereotypicality

In terms of the perceiver's standpoint, the working model was supported in three ways. First, Experiments 1 and 2 extended the scope of backlash effects to include sabotage, a particularly anti-social consequence (Tesser & Smith, 1980). Second, results were consistent with the proposed psychological benefit for sanctioning deviants. Sabotaging normative peers was associated with low self-esteem, whereas sabotaging deviants was associated with high implicit (Experiment 1) and state (Experiment 2) self-esteem. Experiment 2 showed that rating deviants as unlikable or incom-petent also enhanced self-esteem. This pattern suggests that when the context provides justification (e.g., when counterstereotypical competitors deliver a blow to self-esteem), backlash can reap psychological benefits for perceivers (see also Branscombe & Wann, 1994; Spencer et al., 1998). Finally, Experiment 2 showed that perceivers who sabotaged deviants understood that their ac-tions would likely undermine deviants' ability to challenge future perceivers' stereotypes. Thus, the model's assumption that back-

lash likely plays a role in cultural stereotype maintenance was supported.

Actors' Reactions to Counterstereotypicality

Experiment 3 tested the working model from the actor's standpoint and found substantial support. First, when negative reactions to deviance loomed large, men and women hid their atypicality, falsely claimed achievement in a stereotypical domain, and showed greater gender conformity—all to avoid backlash. Second, deviant actors who feared backlash hid their success even though they realized that by doing so, future perceivers' stereotypes would be maintained. Third, mediational analyses were consistent with the model's assumption that fear of backlash would account for deviants' use of hiding and deception and that hiding success would account for the relationship between fear of backlash and stereotype maintenance. In concert, these results show promising support for the bottom row of Figure 1. By contrast, the assumption that deviants' use of recovery strategies would help them maintain their self-esteem was not upheld. Although this might be due to our affording participants weak recovery strategies, it is certainly possible that the model requires adjustment. At present, the path from recovery to self-esteem is suspect. Instead, a negative path leading directly from fear of backlash to self-esteem maintenance may be in order, in line with sociometer theory (Leary & Baumeister, 2000). Indeed, Experiment 3's findings are a testament to the power of the threat of social rejection with respect to influencing actors' behavior, as well as their self-regard. As a result, it appears that fear of backlash and strategies to avoid it have negative consequences for society (vis-à-vis maintaining stereotypes) as well as for actors (vis-à-vis self-esteem).

Taken together, the picture that emerges is one in which stereotypes are perpetuated by both perceivers and actors. From the perceiver's perspective, whether backlash is instantiated as sabotage, unfavorable competence ratings, or low likeability, it functions to preserve stereotypes by erecting strong, social barriers for atypical exemplars. To the extent that perceivers reward stereotype conformity, people who seek to disconfirm stereotypes face substantial difficulties that allow cultural stereotypes to persist. From the actor's standpoint, those who are most likely to challenge cultural stereotypes may be unwilling to do so if they fear social reprisals. In this way, perceivers and actors are caught in a vicious cycle with respect to stereotype maintenance. To the extent that deviance is penalized, atypical exemplars are less willing (and may be unable) to stand out as counterstereotypical role models, but unless they do so, the stereotypic expectancies that drive the engine of backlash remain in force.

Limitations and Future Directions

Although the present findings largely cohered with the working model presented in Figure 1, there are nonetheless several limitations of the research. First, justification for perceiver backlash was not manipulated in Experiments 1 and 2; instead, our assumption was that losing a contest would enhance motives for sabotaging deviants. Past research has suggested that justification "releases the brakes" on backlash (e.g., Rudman & Glick, 1999; Schimel et al., 1999), but future research should directly test this path (e.g., contest winners should be less likely to sabotage deviants). Sec-

ond, support for the path from perceiver backlash to self-esteem maintenance relied on postsabotage measures of self-esteem and as such should be regarded with caution. In particular, it is possible that people with high self-esteem were more likely than low-self-esteem counterparts to exact revenge on deviant targets, given that high self-regard can lead to antisocial behaviors (Baumeister, Smart, & Boden, 1996). Future research should assess self-esteem before and after sabotage to examine this possibility. Third, the evidence for the role of backlash in cultural stereotype maintenance relied on participants' awareness of the effects that perceiver backlash and actors' closeting their success would have on future perceivers' stereotypes. In essence, we asked them to confirm the logic of the model. Future research should examine the actual stereotypes of future perceivers to determine whether the processes evoked in Figure 1 do, indeed, preserve cultural stereotypes. Finally, we used as our projected stereotyping measures expectations that men and women would perform well on a cross-sexed task. In part, this was because stereotypes about women's ability to perform well in male-dominated roles contribute to the glass ceiling (Eagly & Karau, 2002). Indeed, stereotypes about gendered abilities are some of the most difficult to overcome, lending urgency to the need for targets to disconfirm them (Kunda & Thagard, 1996). Nonetheless, future research should check on the ability of the model to predict the preservation of stereotypic traits as well as skills. We have no doubt that it should. To provide just one likely scenario, it is well established that women are less likely than men to ask for what they want (e.g., promotions and salary increases); moreover, a wealth of evidence has accrued to suggest that women who are friendly and nice when they do ask are more successful than their more assertive counterparts (i.e., suffer less backlash; Babcock & Laschever, 2003). If nice women are allowed to succeed more than assertive women, the stereotype that women are nicer than men will be maintained in the culture at large.

Generalizability of the Model

One of the most pernicious effects of backlash for gender deviance is that it prevents men and women from expressing their full human capacities without incurring social and economic costs. Thus, whether or not the model generalizes to other groups should not be the main criterion for its significance. Because scant research has investigated the costs of counterstereotypical behaviors beyond gender, we can only speculate that the model has the potential to inform stereotype maintenance more generally. We do note that Asians who outscored their peers on atypical tasks (e.g., Experiment 1's football knowledge test) were more likely to be sabotaged compared with when they succeeded in a typical domain (knowledge of Asian culture; Rudman, Fairchild, & Rey, 2002). Thus, backlash for targets who violate normative expectancies (within a justifying context) appears to be tentatively generalizable (see also Katz, 1981; Schimel et al., 1999), but we leave it primarily as a question for future research.

Another question concerns motives for backlash on the part of perceivers. In Experiments 1 and 2, we relied on a blow to self-esteem to justify backlash. There may be some contexts in which self-esteem maintenance is less relevant (e.g., Rudman & Glick, 1999), which begs the question, "Why do perceivers react negatively to atypical targets?" One answer may lie in stereotype preservation—that is, in the overarching consequence of backlash

that we propose. It is not surprising that perceivers strive to maintain stereotypes, given the cognitive, social, political, and defensive functions they serve (Ashmore & Del Boca, 1981; Jackman, 1994; Jost & Banaji, 1994; Schimel et al., 1999; Snyder & Miene, 1994). Stereotypes organize information, aid in decision making, provide norms, and support legitimizing ideologies, among other purposes. Indeed, it is difficult to imagine literature, film, opera, and television sitcoms without their heavy reliance on stereotypes. By providing a kind of shorthand for communicating with one another about other people, stereotypes may serve an important cultural narrative function. In short, people's negative reactions to atypical targets may signal the extent to which they need and rely on stereotypes for multifarious reasons. In fact, we may even be able to uncover the particular kinds of stereotypes that are most culturally useful or significant by observing when (and for whom) counterstereotypicality evokes backlash. Nonetheless, future research is necessary to test whether self-esteem maintenance is a general outcome of perceiver backlash or must, instead, be specifically linked to justifications that directly involve self-regard. Although self-protective motives are likely to be frequently instantiated, at present the scope of the model remains untested in this respect.

For the same self-protective reasons, motives for maintaining stereotypes from the actor's perspective are likely to generalize to other groups. People often use others' expectations when they regulate their actions (e.g., Fishbein & Ajzen, 1975; von Baeyer et al., 1981; Zanna & Pack, 1975), in part to avoid the stigma of deviance (Goffman, 1963). Indeed, the need to balance personal values with conformity to others' values has been described as a fundamental human conflict (Allport, 1955; Rohan, 2000). Thus, it seems likely that whenever normative expectancies loom large, actors who fear backlash may respond defensively in ways that support cultural stereotypes.

Finally, the research targeted specific means by which backlash props up normative expectancies. Although undermining deviants and closeting own deviance are undoubtedly important, backlash likely promotes stereotypes through a variety of other means. These include norm internalization and behavioral confirmation effects for people who fear backlash and beliefs about one's efficacy for atypical targets who suffer reprisals. For example, it is not hard to imagine how girls interested in math or boys interested in dance might abandon their talents in order to fit in with their peers. Similarly, African American college students may face considerable social barriers if their peers believe they are "acting too White" (Fordham & Ogbu, 1986; Steele, Spencer, & Aronson, 2002). Thus, we have only begun to explore the possible connections between reactions to counterstereotypicality and stereotype preservation in the culture at large.

Conclusion

The present findings demonstrate that backlash plays a role in cultural stereotype maintenance. The fact that perceivers were more likely to sabotage atypical than typical group members suggests that deviants may be shunted out of the spotlight, where their ability to challenge cultural beliefs is diminished. Moreover, when actors fear sanctions for disconfirming stereotypes, they tend to react in ways guaranteed to maintain cultural stereotypes. Thus, backlash is linked to invisibility for atypical targets and atypical

behaviors alike. The resulting picture is one of a social enterprise in which observers and actors alike conspire to maintain stereotypes by policing others and themselves in order to preserve the social order. The consequences are clearly unfavorable for atypical actors and, ultimately, for a society that constrains people to behave within the limits of stereotypic beliefs.

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(*Appendix follows*)

Appendix

Male and Female Knowledge Test Items

Male Knowledge Test

1. Anfernee Hardaway's nickname is (Penny vs. Doc).

2. A dime is what kind of play in football? (defensive vs. offensive)

3. The name of the Carolina NHL team is? (Thrashers vs. Hurricanes)

4. What team did Bob Gibson pitch for as a Cy Young winner in 1970? (Cardinals vs. Yankees)

5. In 1982, who won the Super Bowl's MVP award? (Joe Namath vs. Joe Montana)

6–8. The next trials will show pictures of cars or motorcycles that you must identify. (Lamborghini vs. Ferrari) (Porsche vs. Mazda) (Honda vs. Suzuki)

9. A motorcycle engine turning at 8000 rpms generates an exhaust sound at (4000 rpms vs. 8000 rpms).

10. To help an engine produce more power you should (inject the fuel vs. reduce displacement).

11. In nature, the best analogy for a spark plug is (solar fire vs. lightning).

12. Karate originated in martial arts developed in (Japan vs. China).

13. Soldiers in WWII often used what type of guns? (Gatling vs. Tommy)

14. The groove inside the barrel of a revolver is (spiraled vs. smooth).

15. What is the compressed force behind BB guns? (gas vs. air)

16. The first people to use primitive flamethrowers in battle were (Greeks vs. Turks).

17. Identify the machine gun depicted on the next screen. (M240G vs. M16A2)

18. The material used between bathroom tiles is called (spackling vs. grout).

19. If you need to replace the tank ball in a toilet, ask for a (flapper vs. ball cock).

20. The paste used for soldering joints is called (gel vs. flux).

21. When choosing insulation, the R-value should be (high vs. low).

22. Hugh Hefner first published Playboy magazine in (1963 vs. 1953).

23. Arnold Schwarzenegger killed more people in which film? (*True Lies* vs. *Total Recall*)

24. After shooting a deer, bear, elk, or turkey, you must attach a (kill tag vs. ID tag).

25. When hunting, the legal amount of Hunter's Orange on your clothes is (25% vs. 50%).

26. By Olympic rules, boxing gloves for all weight classes weigh (12 ounces vs. 10 ounces).

27. When punching someone, you should aim your fist (a foot beyond optimal target vs. directly at target).

28. When punching someone, the majority of the force comes from (the speed of your fist vs. your upper arm and shoulder).

29. What's the best way to deflect a punch? (use the forearm to block it vs. use hand to catch it).

30. When ramming a car to disable it, you should aim for the (rear passenger's tire vs. front driver's tire).

Female Knowledge Test

1. You wear Manolo Blahniks on your (head vs. feet).

2. Botox temporarily erases wrinkles by (skin hydration vs. muscle paralysis).

3. The designer of the handbags shown on the next screen is (Kate Spade vs. Ralph Lauren).

4. The company first to develop hair coloring was (Clairol vs. L'Oreal).

5. What is the woman in the next photo most likely using for a facial? (yogurt vs. egg whites)

6–7. Identify the designer of the evening gowns shown on the next four screens. (Valentino vs. Vera Wang) (Karl Lagerfeld vs. Oscar De La Renta)

8. The TV show "Sex in the City" popularized which drink? (Cosmopolitan vs. Manhattan)

9. Children typically start to teethe when they are (over vs. under) 1 year old?

10. Toilet training should start around the age of (36 months vs. 12 months).

11. Children should not be given which medication? (ibuprofen vs. aspirin)

12. How many cups of water does it take to cook 1 cup of rice? (2 cups vs. 3 cups)

13. Leftovers can be safely kept at room temperature for up to (4 hours vs. 2 hours).

14. If you don't have baking powder, you substitute baking soda plus (salt vs. cream of tartar).

15. A roux is best described as a (sauce vs. cake).

16. Compared to men, women need more (iron vs. zinc).

17. Which of these contains a natural mood enhancer? (chocolate vs. caviar).

18. During pregnancy, morning sickness usually occurs in which trimester? (second vs. first)

19. What was the first website devoted to women? (Glamnet.com vs. Ivillage.com)

20. Who has written the most romance novels? (Betty Hale Hyatt vs. Dame Barbara Cartland)

21. As the best friend of the bride-to-be, you are most obligated to (be the bridesmaid vs. host the shower).

22. What is the most common request from male sexual partners? (share your sexual fantasies vs. put on sexy lingerie)

23. Exercises that improve a woman's sex life are called (Kegel's vs. Pilates).

24. How far in advance should you send out your wedding invitations? (4 weeks vs. 6 weeks)

25. If a party invitation reads "festive casual," you should wear (slacks and a blouse vs. cocktail dress).

26. According to *The Rules*, if you are in a long distance relationship, how many times should a man visit you before you visit him? (3 times vs. 1 time)

27. According to *The Fabulous Girl's Guide*, if you've spent the night with a bad lover, in the morning you should (politely ask him to leave vs. feed him breakfast).

28. The photo on the next screen depicts the CEO of Hewlett-Packard. Who is she? (Carly Fiorina vs. Debra L. Dunn)

29. Articles about parenting are more likely to be found in which magazine? (Cosmopolitan vs. Red Book).

30. The next 4 screens depict fashion "DO" and "DON'T" pictures. Which is the fashion "DO" (according to E!s Fashion Police)? (Catherine Zeta Jones vs. Ivana Trump) (Heather Graham vs. Kristin Davis) (Amanda Peet vs. Cindy Crawford) (Heather Graham vs. Britney Spears)