

# The Merit of Meritocracy

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We argue that the preference for the merit principle is a separate construct from hierarchy-legitimizing ideologies (i.e., system justification beliefs, prejudice, social dominance orientation), including descriptive beliefs that meritocracy currently exists in society. Moreover, we hypothesized that prescriptive beliefs about merit should have a stronger influence on reactions to the status quo when hierarchy-legitimizing ideologies are weak (vs. strong). In 4 studies, participants' preference for the merit principle and hierarchy-legitimizing ideologies were assessed; later, the participants evaluated organizational selection practices that support or challenge the status quo. Participants' prescriptive and descriptive beliefs about merit were separate constructs; only the latter predicted other hierarchy-legitimizing ideologies. In addition, as hypothesized, among participants who weakly endorsed hierarchy-legitimizing ideologies, the stronger their preference for the merit principle, the more they opposed selection practices that were perceived to be merit violating but the more they supported practices that were perceived to be merit restoring. In contrast, those who strongly endorsed hierarchy-legitimizing ideologies were always motivated to support the status quo, regardless of their preference for the merit principle.

*Keywords:* meritocracy, justice, system justification, affirmative action, diversity initiatives

The term *meritocracy* was coined in the book *The Rise of Meritocracy* (Young, 1958); in it, a future social system was envisioned in which outcomes such as wealth, jobs, and power are distributed on the basis of merit (i.e., intelligence and effort). Today, the definition of merit is broader and includes ability, training, and experience. Meritocracy is considered by many to be an ideal justice principle, because only relevant inputs (e.g., abilities) should be considered and irrelevant factors (e.g., ethnicity, gender) should be ignored when distributing outcomes. Thus, meritocracy is bias free and can be seen as creating social mobility; this is the American dream.

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Ironically, Young's book was a satire of a dystopian future in which a new form of elitism takes hold (Young, 2001). In practice, merit-based outcome allocations might be enacted in a manner that reinforces the status quo and favors dominant groups because the latter tend to control the evaluation process (Fischer & Smith, 2003; Haney & Hurtado, 1994). In addition, factors such as inheritance, social advantages, and discrimination interfere with true merit-based outcome allocations (McNamee & Miller, 2004; Roithmayr, 1997). Thus, meritocracy can be seen as a form of hegemony where supporters of meritocracy, knowingly or unknowingly, help to maintain and legitimize social inequality.

So, what does it mean to endorse meritocracy? On the one hand, the social psychological literature has long conceptualized meritocracy as a principle of distributive justice. On the other hand, more recent evidence points to a conceptualization of meritocracy as an ideology that can serve to legitimize inequality in society. In the present research, we argue that both conceptualizations are accurate, that the two are distinguishable, and that they interact to produce people's reactions to the status quo. In the next sections, we separately review the two perspectives in more detail and then describe the present research.

## Meritocracy as a Justice Principle

Social scientists have identified three principle-distribution rules that can maximize fairness in outcome allocations: equity, equality, and need. The notion that, to be fair, outcomes should be allocated on the basis of merit relates to the distributive justice principle of equity, which states that the ratio of people's inputs to outcomes should be equivalent to the ratio of relevant comparison others (Adams, 1965; Deutsch, 1975; Lerner, 1977). If an employ-

ee's inputs to an organization (e.g., sales) are greater than those of the employee's colleague, then to be fair, the employee's outcomes (e.g., bonus) should be greater than those of the colleague. In contrast, equality involves allocating the same outcome to everyone (e.g., office space), and need involves allocating outcomes (e.g., parental leave) to those who require them most (Leventhal, 1976).

In Western workplace and educational settings, people typically believe that equity, rather than need or equality, should be used to fairly allocate outcomes such as pay or grades (Hook & Cook, 1979), perhaps because equity is assumed to result in maximum productivity and motivation (Deutsch, 1975). People prefer equity and try to restore it when outcomes are inequitable (Cook & Hegtvad, 1983). This is true even when people experience overpayment inequity, such that, in the short term, they will increase their inputs to create equity, although such behavior is at odds with their self-interest (Greenberg, 1988; Greenberg & Leventhal, 1976). A preference for equitable outcome allocations is seen consistently in children as young as age 5 (Hook & Cook, 1979) and in primates (Brosnan, 2006). The more employees perceive that their outcomes are distributed on the basis of the equity principle (Price & Mueller, 1981), the more positive their work attitudes (e.g., job satisfaction) and behaviors (e.g., citizenship; Aryee, Budhwar, & Chen, 2002; McFarlin & Sweeney, 1992; Pillai, Schriesheim, & Williams, 1999). Thus, there is a vast literature that supports the notion that meritocracy is an important justice principle.

### Meritocracy as a Hierarchy-Legitimizing Ideology

A competing, more recent perspective is that meritocracy is an ideology that serves to legitimize a hierarchical society (McCoy & Major, 2007). According to this perspective, beliefs in meritocracy are associated with various hierarchy-legitimizing ideologies, three of which we review in this section: system justification beliefs, prejudice, and social dominance orientation.

First, beliefs about meritocracy are framed as system justification beliefs (Jost & Hunyady, 2005). System justification theory argues that people are motivated to see the world as fair and predictable to reduce threats of uncertainty; thus, they embrace ideologies that legitimize the current system (Jost, Banaji, & Nosek, 2004). Believing that the current system is a meritocracy can lead to support for the status quo (Jost, Pelham, Sheldon, & Sullivan, 2003). For instance, positive stereotypes of high-status and powerful individuals can rationalize and justify social inequalities (Haines & Jost, 2000; Oldmeadow & Fiske, 2007). Beliefs that the current system is a meritocracy correlate with other system justification beliefs: the beliefs that income inequality is legitimate and one's economic situation is satisfactory (Jost, Pelham, et al., 2003), as well as conservatism (Federico & Sidanius, 2002), right-wing authoritarianism (authoritarian submission, aggression, and conventionalism), and the Protestant work ethic (i.e., the belief that people who work hard succeed; Lalonde, Doan, & Patterson, 2000). Consistent with the notion that people conceptualize fairness in a manner that legitimizes their social reality, the more hierarchical a society's culture, the more its people prefer equity—the basis of meritocracy—to equality as a distribution rule (Fischer & Smith, 2003). Finally, the more that high-status individuals believe the system is a meritocracy, the greater their well-being,

suggesting that rationalizing the status quo reduces discomfort (Foster, Sloto, & Ruby, 2006; Napier & Jost, 2008; O'Brien & Major, 2005).

Second, the belief in meritocracy is related to prejudice. For instance, Whites higher (vs. lower) in old-fashioned racism are more likely to believe that meritocracy exists (Federico & Sidanius, 2002; Sidanius, Devereux, & Pratto, 1992). Moreover, beliefs about meritocracy are a defining feature of symbolic racism (Henry & Sears, 2002), modern racism (McConahay, 1986), and modern sexism (Swim, Aikin, Hall, & Hunter, 1995) in that their measures specifically tap the belief that discrimination is no longer a problem. Consequently, Whites higher in symbolic racism are more likely to endorse the belief that Blacks fail to get ahead because of a lack of hard work and self-reliance (Henry & Sears, 2002). In support of modern prejudice theories, the more that Whites believe the current system is a bias-free meritocracy, the more likely they are to make negative, internal attributions for the status of disadvantaged groups (Fraser & Kick, 2000; Haney & Hurtado, 1994) and to make positive attributions (e.g., intelligent, hardworking) for the status of advantaged groups (Jost, 2001). In addition, there is evidence that priming the concept meritocracy causes greater stereotyping of women (McCoy & Major, 2007) and discrimination against women (Castilla & Bernard, 2010). Thus, beliefs that meritocracy exists can serve to legitimize prejudice.

Third, according to social dominance theory (Sidanius & Pratto, 1999), meritocracy is a hierarchy-enhancing ideology that serves to maintain inequality across social groups: Those who have status, wealth, and power deserve their rewards and the poor deserve their fate due to a lack of hard work. People who more strongly desire group-based dominance—those with a higher social dominance orientation (SDO)—are more likely to endorse beliefs associated with merit: a belief in a just world (people get what they deserve in life), the Protestant work ethic, the belief that equal opportunity exists for all groups, and the notion that income reflects people's competence (Haley & Sidanius, 2006; Pratto, Sidanius, Stallworth, & Malle, 1994). In addition, those who are primed with the idea that people who work hard succeed (vs. do not always succeed) less strongly endorse egalitarianism (Levy, West, Ramirez, & Karafantis, 2006). Thus, support for group-based hierarchy is linked to beliefs that the current system is a meritocracy.

### The Current Research

From the above, it is clear that the concept of meritocracy can be a hierarchy-legitimizing ideology reflected in (a) system justification, (b) prejudice, and/or (c) SDO. However, is meritocracy always hierarchy legitimizing, or can it also genuinely reflect a justice principle? We suggest that a critical distinction lies in whether one endorses meritocracy as a descriptive belief or a prescriptive belief (see also Major, Kaiser, O'Brien, & McCoy, 2007). Among those who believe meritocracy reflects current outcome distributions in society—that is, those for whom meritocracy is a descriptive belief—meritocracy can function as a hierarchy-legitimizing ideology. However, among those who believe that outcomes in society ought to be distributed on the basis of merit—that is, those for whom meritocracy is a prescriptive belief—meritocracy can function as a justice principle. Thus, we hypothesized that prescriptive beliefs about merit are distinguish-

able from the hierarchy-legitimizing ideology that meritocracy exists.

In Study 1, we examined whether people's preference for the merit principle (a prescriptive belief) is distinct from people's beliefs that the current system is a meritocracy (a descriptive belief). In addition, we examined how beliefs about meritocracy relate to hierarchy-legitimizing ideologies (i.e., system justification beliefs, prejudice, SDO). We predicted that descriptive—but not prescriptive—beliefs about meritocracy should relate to hierarchy-legitimizing ideologies.

How might prescriptive beliefs about merit predict reactions to practices (i.e., policies or decisions) involving outcome allocations to “haves” versus “have-nots” that affect the status quo? We hypothesized that the effect of prescriptive beliefs about merit should depend (a) on whether practices violate, uphold, or restore merit and (b) on people's hierarchy-legitimizing ideologies. In particular, when people weakly endorse hierarchy-legitimizing ideologies (e.g., when respondents are nonsexist), prescriptive beliefs about merit should have their strongest influence on reactions. The precise manner in which prescriptive beliefs influence reactions will depend on the situation. A stronger prescriptive preference for merit should lead to relatively more opposition to practices that violate the merit principle, fail to predict reactions to practices that uphold merit, and lead to relatively more support for practices that restore merit. In contrast, when people strongly endorse hierarchy-legitimizing ideologies (e.g., when respondents are sexist), prescriptive beliefs about merit should not influence reactions to practices that affect the status quo. This is because people who more strongly endorse hierarchy-legitimizing ideologies should be motivated to maintain the status quo, regardless of their preference for the merit principle.

In Studies 2, 3, and 4, we examined the preceding moderation hypothesis in the context of organizational selection practices. Support for gender discrimination, opposition to affirmative action, and opposition to diversity initiatives were conceptualized as support for the status quo. We tested the moderating role of various hierarchy-legitimizing ideologies: system justification beliefs (e.g., meritocracy exists, evaluations of women and ethnic minorities are bias free), prejudice (explicit and implicit sexism), right-wing authoritarianism, and SDO. Finally, we hypothesized that the hierarchy-legitimizing ideology that is most relevant to the context (see Study 3) would be most likely to moderate the effects of prescriptive preferences for the merit principle.

## Study 1

Our purpose in the current study was to test how people's preference for merit-based outcomes—which reflect concerns about how outcomes ought to be distributed—is related to hierarchy-legitimizing ideologies. We investigated four system-justifying beliefs: that outcomes in society currently are merit based, political conservatism, support for authority figures, and right-wing authoritarianism (RWA). We investigated two other hierarchy-legitimizing ideologies: prejudice and SDO.

Davey, Bobocel, Son Hing, and Zanna (1999) created the Preference for the Merit Principle Scale to assess people's prescriptive belief that in work and academic settings, outcomes should be distributed on the basis of merit (vs. need or equality). A preference for the merit principle has been found to be either unrelated

or weakly, positively related to comparable descriptive beliefs, such as beliefs in a just world, beliefs in individual mobility, and Protestant work ethic (Davey et al., 1999; Major et al., 2007). Although these data are informative, many conceptual and methodological differences exist between the measures of prescriptive and descriptive beliefs regarding meritocracy, making the relation between the two difficult to evaluate. To test, in the strongest manner possible, the relation between people's prescriptive and descriptive beliefs about merit, we developed parallel measures that differed only in whether the items referred to how outcomes are allocated or to how outcomes ought to be allocated.

We hypothesized that prescriptive and descriptive beliefs about merit are distinct constructs. People can believe that outcomes ought to be distributed on the basis of merit and yet vary in their perceptions of whether this is how society currently operates. Yet through motivated reasoning (Kunda, 1990), people who desire a merit-based society could come to endorse the belief that the current system is a proper meritocracy. In addition, perceiving merit-based outcome allocations to be typical could lead people to believe that such allocations are desirable (Eidelman, Crandall, & Pattershall, 2009). Therefore, we predicted that people's preference for merit-based outcomes should be weakly and positively related to people's belief that the current system is a meritocracy. Furthermore, we predicted that people should endorse prescriptive beliefs more strongly than descriptive beliefs about merit (e.g., believing that career progression should be determined by job performance but recognizing that success and failure can depend on chance or bias).

Our second goal was to test that prescriptive and descriptive beliefs about merit demonstrate differential prediction with hierarchy-legitimizing ideologies (i.e., system justification beliefs, prejudice, and SDO). Given that people's beliefs that meritocracy exists reflect a system justification belief but people's preference for the merit principle does not, we hypothesized that only the former should correlate positively with other hierarchy-legitimizing ideologies.

To explore system justification beliefs, we tested political conservatism, support for authority figures, and RWA. These orientations reflect support for the status quo, its conventions, and its legitimate representatives. Previous research has demonstrated that people who more (vs. less) strongly believe that society is a meritocracy (e.g., believe that hard work brings success) are more politically conservative and higher in RWA (Garcia, Desmarais, Branscombe, & Gee, 2005; Napier & Jost, 2008). In contrast, preference for the merit principle is unrelated to political conservatism and RWA (Davey et al., 1999). Therefore, we predicted that descriptive—but not prescriptive—beliefs about merit should relate positively to political conservatism, support for authority figures, and RWA.

To explore prejudice, we assessed racism and sexism. Previous research has shown that the belief that merit determines success in society relates positively to old-fashioned racism (Federico & Sidanius, 2002) and to sexism (Garcia et al., 2005; Garcia, Desmarais, Jackson, & Pancer, 2001). In contrast, individual differences in people's preference for the merit principle are unrelated to racism and are inversely related to sexism (Bobocel, Son Hing, Davey, Stanley, & Zanna, 1998; Brodish, Brady, & Devine, 2008; Davey et al., 1999). Therefore, we predicted that descriptive—but

not prescriptive—beliefs about merit should relate positively to racism and sexism.

In addition, we investigated SDO. People's beliefs that achievement depends on individual merit have been linked to SDO (Haley & Sidanius, 2006). In contrast, people's preference for the merit principle is unrelated to SDO (Davey et al., 1999). Therefore, we predicted that descriptive—but not prescriptive—beliefs about merit should relate positively to SDO.

Our third goal was to test how prescriptive and descriptive beliefs about merit relate to desirable responding (Paulhus, 1984). Neither was expected to relate to social desirability.

## Method

**Participants.** There were 158 participants (65 men, 93 women) in Sample 1, who ranged in age from 18 to 24 ( $M = 19.34$  years,  $SD = 0.91$ ). There were 209 participants in Sample 2, who ranged in age from 17 to 49 ( $M = 19.11$  years,  $SD = 2.89$ ). In Sample 2, roughly half of the participants (54 men, 48 women) completed the Preference for the Merit Principle Scale and half (48 men, 59 women) completed the Perceptions That Meritocracy Exists Scale.

**Procedure.** Participants in Sample 1 completed all measures in mass testing, which took 1 hr to complete, and were awarded one research credit in their psychology course. The Preference for the Merit Principle Scale always preceded the Perceptions That Meritocracy Exists Scale. Other researchers' scales separated all our measures.

Participants in Sample 2 completed the Modern Sexism Scale and an assessment of political conservatism in mass testing. Two to 8 weeks later, they came into the lab to complete either the Preference for the Merit Principle Scale or the Perceptions That Meritocracy Exists Scale. Participants completed only one scale because we were concerned that completing two similar measures in a short time frame could raise suspicion. Participants were awarded one research credit for completing mass testing and another for the main study.

**Measures.** The Preference for the Merit Principle Scale consists of 15 items tapping beliefs that outcomes in work and academic settings ought to be allocated on the basis of merit. The Perceptions That Meritocracy Exists Scale was exactly parallel in form to the Preference for the Merit Principle Scale except that items refer to the belief that outcomes currently are distributed on the basis of merit. Sample items are "Success [ought to be/is] possible for anyone who works hard enough" and "In organizations, people who do their job well [ought to] rise to the top" (1 = *strongly disagree* to 7 = *strongly agree*).

As an assessment of political conservatism, participants were asked, "Please indicate your political orientation by circling the number where your orientation falls" (1 = *extremely liberal* to 7 = *extremely conservative*; 0 = *haven't thought about it much*; 0 = *don't know*).<sup>1</sup> Single-item Left-Right self-identification measures of political ideology have strong predictive validity (Jost, 2006). Evaluations of authority figures were assessed with a feelings thermometer (0 = *very cold or unfavorable* to 100 = *very warm or favorable*). Evaluations of "police" and "politicians" were aggregated,  $r(156) = .42$ ,  $p < .001$ . A 30-item Right-Wing Authoritarianism Scale was administered to test the degree to which participants endorsed authoritarian submission, conventionalism,

and aggression (1990, Version 1; personal communication, B. Altemeyer, June 6, 2005). A sample item is "It is important to protect fully the rights of radicals and deviants (R)" (-4 = *very strongly disagree* to 4 = *very strongly agree*).

Both traditional and modern racism toward visible ethnic minorities were assessed with items from Altemeyer's (1996) Ethnocentrism Scale and the Modern Racism Toward Visible Minorities Scale (Bobocel et al., 1998). Sample items are "Visible minorities can be trusted as much as everyone else (R)" and "The public needs to become aware of the many ways visible minorities in Canada suffer from prejudice (R)" (1 = *very strongly disagree* to 9 = *very strongly agree*). The eight-item Modern Sexism Scale (Swim et al., 1995) assessed the beliefs that discrimination against women no longer exists and, as such, women deserve their current position in society. A sample item is "Society has reached the point where women and men have equal opportunities for achievement" (1 = *strongly disagree* to 5 = *strongly agree*).

The 16-item SDO Scale (Pratto et al., 1994) assessed the degree to which participants desire group-based social hierarchy. A sample item is "Some groups of people are simply inferior to other groups" (1 = *very negative* to 7 = *very positive*).

The 40-item Balanced Inventory of Desirable Responding (Paulhus, 1984) was used to assess self-deceptive enhancement (e.g., "I am a completely rational person") and impression management (e.g., "I never take things that don't belong to me"). Respondents use a 7-point scale (1 = *not true* to 7 = *very true*); however, scores of 6 and 7 are recoded to 1 and scores of 5 and below are recoded to 0.

## Results

**Preference for the merit principle and perceptions that meritocracy exists.** In Sample 1, the reliability analysis for the Perceptions That Meritocracy Exists Scale revealed that three items had corrected item-total correlations below .10. Those three items were dropped from the scale, which led to a higher internal consistency (Cronbach's  $\alpha_s = .77-.85$ ). To be consistent, we dropped the same three items from the Preference for the Merit Principle Scale, which also improved the internal consistency (Cronbach's  $\alpha_s = .58-.71$ ). Participants rated the Preference for the Merit Principle Scale moderately to strongly ( $M = 5.64$ ,  $SD = 0.55$ , min = 3.25, max = 7.00). As predicted, ratings on the Perceptions That Meritocracy Exists Scale, though moderate, were significantly lower ( $M = 4.66$ ,  $SD = 0.83$ , min = 1.92, max = 6.17),  $t(157) = 13.79$ ,  $p < .001$ , Cohen's  $d = 1.39$ .

For Sample 1, confirmatory factor analyses were conducted to test the relation between descriptive and prescriptive beliefs about meritocracy. In Model 1, preference for the merit principle and perceptions that meritocracy exists were treated as a single latent construct and parallel manifest items from each scale were allowed to correlate,  $\chi^2(240) = 605.33$ ,  $p < .001$ , normed fit index = .475, goodness-of-fit index = .700, comparative fit index = .583, root-mean-square error of approximation = .104. In Model 2, preference for the merit principle and perceptions that meritocracy exists were treated as separate latent constructs and parallel manifest

<sup>1</sup> Data were not used for participants who selected either of the latter two response options ( $n = 10$ ).

items from each scale were allowed to correlate,  $\chi^2(239) = 422.34$ ,  $p < .001$ , normed fit index = .634, goodness-of-fit index = .806, comparative fit index = .791, root-mean-square error of approximation = .074. A correlation of .27 was observed between the two latent constructs. Of note, Model 2 accounted for significantly more incremental variance in the data than did Model 1,  $\chi^2(1) = 182.99$ ,  $p < .001$ . Thus, the confirmatory factor analysis supports the hypothesis that prescriptive and descriptive beliefs about merit are separate constructs.

For Sample 2, the same three items were dropped from each scale to be consistent with Sample 1. The reliabilities for the Preference for the Merit Principle Scale (Cronbach's  $\alpha = .77$ ) and the Perceptions That Meritocracy Exists Scale (Cronbach's  $\alpha = .78$ ) were good. The descriptive statistics for the Preference for the Merit Principle Scale ( $M = 5.15$ ,  $SD = 0.56$ , min = 3.00, max = 6.67) and the Perceptions That Meritocracy Exists Scale ( $M = 4.41$ ,  $SD = 0.72$ , min = 1.92, max = 6.08) were comparable to those for Sample 1.

**Differential prediction.** We tested the differential relations of the Perceptions That Meritocracy Exists Scale and the Preference for the Merit Principle Scale with hierarchy-legitimizing ideologies (see Table 1). For Sample 1, to test the unique relations of these merit scales with other constructs, we conducted semipartial correlations removing any effect of the alternative merit scale. (The same results are found with the zero-order correlations.) For Sample 2, it was possible to examine only zero-order correlations (participants completed only one merit scale).

As predicted, the more participants perceived the current system to be a proper meritocracy, the more conservative they were, the more favorable their attitudes were toward police officers and politicians, and the higher they scored in RWA (see Table 1). In contrast, participants' preference for the merit principle was unrelated to their political orientation, attitudes toward authority figures, and RWA. In addition, as predicted, the more strongly participants perceived meritocracy to exist—but not the more they preferred merit-based outcomes—the higher they scored in racism toward ethnic minorities and SDO. The predicted relation between

beliefs that meritocracy exists and modern sexism did not achieve significance,  $r(105) = .16$ ,  $p = .10$ . Follow-up analyses revealed that for women, the higher they scored in modern sexism, the more they perceived meritocracy to exist in society,  $r(57) = .40$ ,  $p = .002$ ; however, for men, there was no relation,  $r(46) = -.03$ ,  $p = .84$ . Thus, only the belief that meritocracy exists—and not preference for the merit principle—was related to other hierarchy-legitimizing ideologies. Finally, neither beliefs that meritocracy exists nor preference for the merit principle predicted participants' levels of self-deception or impression management.

## Discussion

We found strong evidence (a) that the prescriptive belief that outcomes should be allocated on the basis of merit is a separate construct from the belief that, in society, rewards go to those who are most worthy and (b) that only the latter is a hierarchy-legitimizing ideology. The confirmatory factor analysis revealed that the two constructs are independent yet weakly, positively related. This could reflect that desiring a meritocracy influences people's perceptions of reality through motivated reasoning (Kunda, 1990) or that perceiving meritocracy to exist influences people's beliefs of the desirability of a merit-based system (Eidelman et al., 2009). However, it is also possible that this positive relation was observed simply because the two scales were administered in the same mass-testing session with nearly identical item wording.

As predicted, participants more strongly believed that the system should be a meritocracy than they believed that the system operates as a meritocracy. Moreover, there is strong evidence that participants' beliefs that the current system is a meritocracy—but not their preference for merit-based outcomes—are related to hierarchy-legitimizing ideologies: political conservatism, support for authority figures, RWA, racism, sexism (among women), and SDO. Consistent with earlier findings (Jost & Thompson, 2000; McCoy & Major, 2007), those who are motivated to legitimize existing group-based dominance structures were more likely to believe that outcome allocations in society are determined on the basis of people's deservingness. In contrast, people who more (vs. less) strongly prefer merit-based outcome allocations did not tend to more strongly endorse system justification beliefs (i.e., political conservatism, support for authority figures, RWA), nor did they tend to be more prejudiced or higher in SDO. Thus, prescriptive and descriptive beliefs about merit are weakly related, differentially endorsed, and differentially related to hierarchy-legitimizing ideologies, as assessed in the current research.

We investigated modern sexism because it involves the denial of discrimination against women. Thus, modern sexism (and modern racism) can be construed not only as a measure of prejudice but also as a system justification belief. This is because modern sexism inherently entails the belief that women are currently treated fairly. The fact that modern sexism is significantly related to beliefs that meritocracy exists for women but not for men could indicate that modern sexism primarily reflects system justification for women and antipathy for men. More broadly, there is evidence that system justification processes are particularly robust among disadvantaged group members (Jost, Pelham, et al., 2003).

Neither prescriptive nor descriptive beliefs about merit were related to social desirability. This allowed us to test our second

Table 1  
Study 1: Discriminant Validity of Descriptive and Prescriptive Meritocracy Beliefs

Variable	$\alpha$	$M$	$SD$	Correlation with	
				PME	PMP
Political conservatism <sup>a</sup>		3.23	1.53	.22 <sup>c</sup>	.15 <sup>d</sup>
Authority figures <sup>b</sup>	.42 <sup>e</sup>	53.70	19.18	.25 <sup>**</sup>	.04
RWA <sup>b</sup>	.92	-0.94	1.08	.17 <sup>*</sup>	.02
Racism <sup>b</sup>	.84	4.16	1.16	.17 <sup>*</sup>	.06
Modern sexism <sup>a</sup>	.80	3.60	0.96	.16	.08
SDO <sup>b</sup>	.94	2.44	1.02	.17 <sup>*</sup>	-.13
Self-deception <sup>b</sup>	.69	0.26	0.16	-.14	.00
IM <sup>b</sup>	.70	0.24	0.16	-.11	.05

Note.  $\alpha$  = Cronbach's alpha;  $SD$  = standard deviation; PME = perceptions that meritocracy exists; PMP = preference for the merit principle; RWA = right-wing authoritarianism; SDO = social dominance orientation; IM = impression management.

<sup>a</sup> Sample 2. <sup>b</sup> Sample 1. <sup>c</sup>  $N = 97$ . <sup>d</sup>  $N = 92$ . <sup>e</sup> Index of reliability is a correlation coefficient.

\*  $p < .05$ . \*\*  $p < .01$ .

central hypothesis: People's preference for the merit principle interacts with people's hierarchy-legitimizing ideologies to predict reactions to the status quo, without concerns of confounds with impression management.

## Study 2

We hypothesized that the effect of people's prescriptive beliefs about merit should be moderated by people's hierarchy-legitimizing ideologies, such that prescriptive beliefs about merit would have a stronger influence on reactions when hierarchy-legitimizing ideologies were weak than when hierarchy-legitimizing ideologies were strong. In the current study, we tested the interactive effect of people's preference for the merit principle with the system justification belief that society operates as a proper meritocracy. Participants' reactions to an inequitable but ambiguous hiring decision were explored. To create a scenario for which system justification effects could occur, one should include some grounds by which people can rationalize the hiring decision if they are so inclined. Therefore, by design, the hired candidate appeared generally inferior yet stronger on one selection criterion. When motivated by biases, people weigh selection criteria to favor their preferred candidate (Hodson, Dovidio, & Gaertner, 2002).

System justification motives are activated when the situation threatens people's belief that their society is fair (Kay, Banfield, & Laurin, 2010); therefore, we manipulated system threat. In the experimental condition, participants read about a less qualified man, hired over a more qualified woman; gender discrimination should threaten participants' sense of society as just. In the control condition, participants read about a less qualified man, hired over a more qualified man. We reasoned that when candidates are of the same gender, the hiring decision would seem inequitable and puzzling, but it should not threaten participants' sense of living in a just society. It is only when participants experience system threat that beliefs that meritocracy exists should motivate rationalizations of the hiring decision as fair. Thus, we predicted that our hiring manipulation (man hired over [woman/man]) should interact with participants' preference for the merit principle and beliefs that meritocracy exists to produce reactions to the hiring decision.

In the experimental condition, a less qualified man is hired over a more qualified woman; thus, merit is violated, gender discrimination occurs, and outcomes are allocated in a manner consistent with the status quo (i.e., an advantaged-group member is favored). In this case, people's preference for the merit principle should interact with their belief that meritocracy exists to produce evaluations of the hiring decision. We expected that among participants who strongly endorsed the belief that meritocracy exists, preference for the merit principle should be unrelated to judgments of the hiring decision. This is because, regardless of their preference for the merit principle, people who more strongly endorse the belief that society is a proper meritocracy should be motivated to rationalize as fair a hiring decision that maintains a sexist status quo. In contrast, among participants who weakly endorsed the belief that meritocracy exists (i.e., who are open to seeing biases in the system), the more strongly they believe outcomes ought to be distributed on the basis of merit, the more unfair they should judge the inequitable hiring decision because the candidate who is less qualified (on three of four criteria) is hired.

In the control condition, merit is violated but there is no gender discrimination and the hiring decision has no consequence for the status quo. Because system justification motives should not be activated, we did not expect an interaction between people's preference for the merit principle and beliefs that meritocracy exists. Rather, the stronger their preference for the merit principle, the more unfair people should judge the inequitable hiring decision.

## Pilot Study

Participants ( $N = 34$ ) read a job description for a radio announcer and a summary for two candidates. It was noted that "progression is possible for those with an educational background in journalism or a related field" and that only the weaker candidate (A) held such a degree. (Both candidates had a radio arts diploma.) The stronger candidate (B) had more relevant work experience, stronger letters of reference, and better performance on an audition. No information was given about the candidates' sex or who was selected for the position.

When asked, "Who is the stronger candidate?" 94% ( $n = 32$ ) of participants chose Candidate B. Among those participants who chose Candidate B, responses to "How clear is it that this person is stronger?" ( $1 = \text{not at all clear}$  to  $7 = \text{very clear}$ ) ranged from 2 to 7 ( $M = 5.44$ ,  $SD = 1.46$ ). As desired, one candidate was viewed as objectively more qualified than the other. Still, there was variance in participants' perceptions of the stronger candidate's superiority. Thus, participants who were motivated to do so could diminish the qualifications of the stronger candidate and bolster the qualifications of the weaker candidate.

## Main Study

### Method.

**Participants.** In Phase 1 of the study, 382 participants (86 men, 296 women) completed mass-testing booklets. In Phase 2, a subset of these participants was randomly assigned to the experimental condition (23 men, 29 women) or the control condition (20 men, 32 women). They ranged in age from 18 to 23 ( $M = 19.29$  years,  $SD = 0.83$ ). Participants were awarded one research credit for completing mass testing and one for the main study.

**Procedure and materials.** In Phase 1, participants completed the Preference for the Merit Principle Scale, other researchers' measures, and then the Perceptions That Meritocracy Exists Scale. Approximately three to six weeks later, randomly selected participants were invited to participate in a study of whether untrained "laypeople," such as students, make judgments similar to those of organizational selection committees. A female experimenter tested them in small groups. They read descriptions for a radio announcer position and summaries for Candidates A (the weaker one) and B (the stronger one). They were informed that Candidate A, John Spitz, had been selected. The gender of Candidate B was indicated by name: Anne Whyman (experimental condition) or Bret Curtain (control condition). Pilot testing ( $N = 45$ ) revealed that all names were rated as equally likable ( $ps > .55$ ).

Five items assessed judgments of the hiring decision. Sample items are "Candidate [A/B] was well qualified for this position," "The selection criteria (e.g., relevant work experience) were weighed appropriately when determining whom to hire," and "The procedures used during the selection process were unfair" ( $1 =$

strongly disagree to 7 = strongly agree). Items were coded so that higher numbers indicate a more fair hiring decision (Cronbach's  $\alpha = .68$ ).

**Results.**

**Preliminary analyses.** The Preference for the Merit Principle Scale initially had low internal consistency (Cronbach's  $\alpha = .63$ ), but it improved when we dropped the same three items as in Study 1 (Cronbach's  $\alpha = .77$ ). Removing these three items from the Perceptions That Meritocracy Exists Scale also improved the reliability (Cronbach's  $\alpha = .75-.84$ ).

Preference for the merit principle was weakly correlated with beliefs that the current system is a meritocracy,  $r(102) = .27, p < .001$ . Thus, as in Study 1, there was a small tendency for people who more strongly endorse the merit principle to more strongly believe that this is how outcomes are, in fact, distributed, and vice versa. Also, again, participants more strongly endorsed the belief that outcomes ought to be based on merit ( $M = 5.64, SD = 0.58$ ) than the belief that outcomes are distributed on the basis of merit ( $M = 4.61, SD = 0.87$ ),  $t(103) = 11.49, p < .001$ , Cohen's  $d = 1.39$ . Similar results were found with the larger mass-testing sample.

Men and women did not differ in their preference for the merit principle, beliefs that the current system is a meritocracy, or perceptions of the fairness of the hiring decision ( $ps > .21$ ). Gender did not moderate any of the predictors, and if it is treated as a covariate, the findings remain the same. Therefore, analyses were conducted collapsed across gender.

**Main analyses.** Procedures laid out by Aiken and West (1991) for testing interactions with categorical and continuous variables were followed for all studies. That is, continuous main effect predictors were first centered and then multiplied to create interaction terms, and all predictors were entered simultaneously (experimental condition = -1, control condition = 1). Simple slopes were tested at one standard deviation below and above the mean for continuous predictors and with condition dummy coded for categorical predictors (Holmbeck, 2002).

The overall model was significant,  $F(7, 96) = 2.44, p = .02$ , and accounted for 15% of the variance in judgments of the fairness of the hiring decision (see Table 2). We found significant effects of Condition  $\times$  Perceptions Meritocracy Exists and of Preference for the Merit Principle  $\times$  Perceptions Meritocracy Exists. However, they were qualified by the predicted Condition  $\times$  Preference for the Merit Principle  $\times$  Perceptions Meritocracy Exists interaction ( $B = -0.45, SE B = 0.21, p = .04, sr^2 = .04$ ; see Figure 1). No other effects were significant.

Table 2  
Study 2: Predicting Evaluations of the Fairness of the Hiring Decision

Predictor	B	SE B	sr <sup>2</sup>
Condition	0.04	0.10	.001
Preference for the merit principle (PMP)	0.01	0.17	.000
Perceptions meritocracy exists (PME)	-0.03	0.11	.001
Condition $\times$ PMP	0.09	0.17	.003
Condition $\times$ PME	-0.26*	0.11	.049
PMP $\times$ PME	0.47*	0.21	.044
Condition $\times$ PMP $\times$ PME	-0.45*	0.21	.040

Note.  $N = 104$ .  
\*  $p < .05$ .

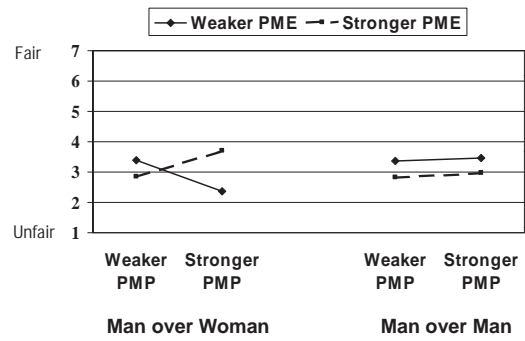


Figure 1. Study 2: Evaluations of the inequitable hiring decision as a function of condition, preference for the merit principle (PMP), and perceptions that meritocracy exists (PME).

As predicted, in the experimental condition in which a less qualified man was hired over a more qualified woman, the Preference for the Merit Principle  $\times$  Perceptions Meritocracy Exists interaction was significant ( $B = 0.92, SE B = 0.32, p = .006, sr^2 = .07$ ). As expected, among participants who did not perceive the current system to be a meritocracy (i.e., those who were open to recognizing bias in the system), the stronger their preference for the merit principle, the less fair they perceived the hiring decision to be ( $B = -0.88, SE B = 0.35, p = .01, sr^2 = .06$ ). In contrast, among participants who perceived the current system to be a meritocracy, preference for merit was not significantly related to evaluations of the hiring decision ( $B = 0.72, SE B = 0.39, p = .07, sr^2 = .03$ ). Those who more strongly endorsed the system justification belief that current society is a proper meritocracy tended to rate the hiring decision as more fair, regardless of their preference for the merit principle.

As predicted, in the control condition, the Preference for the Merit Principle  $\times$  Perceptions Meritocracy Exists interaction did not emerge ( $B = 0.02, SE B = 0.27, p = .94$ ). No other effects were significant, including the predicted main effect of preference for the merit principle ( $B = 0.11, SE B = .23, p = .64$ ).

**Discussion.** The results of Study 2 support the hypothesis that a preference for the merit principle does not reflect a hierarchy-legitimizing ideology. First, replicating Study 1, we found that people's prescriptive preference for the merit principle was only weakly positively related to people's descriptive beliefs that current society is a proper meritocracy. More important, we found that people's prescriptive beliefs about the merit principle interact with their descriptive beliefs that meritocracy exists to produce reactions to a hierarchy-enhancing hiring decision.

Consistent with the notion that system justification motives are activated only when one's belief in a just system is threatened (Kay et al., 2010), prescriptive and descriptive beliefs about merit interacted only in the experimental condition. It appears that observing gender discrimination (i.e., a less qualified man hired over a more qualified woman) is more threatening to one's sense of a just system than is a non-gender-based decision (i.e., a less qualified man hired over a more qualified man) that favors one selection criterion over all others.

With regard to the experimental (gender discrimination) condition, among people who endorsed the system justification belief that the current system is a meritocracy, preference for the merit principle did not significantly predict evaluations of the hiring

decision, as everyone rated the decision as more fair. Participants were able to engage in such motivated reasoning because the weaker candidate had more promotion potential. Yet, we considered evaluations of the hiring decision as more fair to be evidence for system justification and as support for the status quo because a less qualified man is hired over a more qualified woman. In contrast, among those open to seeing bias in the system (i.e., people who do not strongly endorse the hierarchy-legitimizing belief that meritocracy exists), a stronger preference for the merit principle predicted more negative evaluations of a sexist hiring decision that bolsters the status quo.

In the control condition, in which a less qualified man is hired over a more qualified man, people's preference for the merit principle was unrelated to judgments of the hiring decision, regardless of people's beliefs that meritocracy exists. It appears that the selection context was sufficiently ambiguous that participants did not perceive it to be clearly merit violating; thus, their preference for the merit principle did not predict reactions. The degree of merit violation should be varied systematically to determine when people's preference for the merit principle predicts reactions in the selection context. We pursued this avenue in Studies 3 and 4.

### Study 3

How might people's preference for the merit principle and hierarchy-legitimizing ideologies predict reactions to programs that have the power to disrupt the status quo and reduce inequalities between disadvantaged and advantaged group members? In this study, we investigated people's opposition to affirmative action (AA) programs, which distribute important outcomes (jobs, promotions) to designated beneficiary groups (e.g., women, visible ethnic minorities). The competing perspectives on meritocracy figure prominently in the AA discourse. On the one hand, justice-based arguments for opposition to AA could truly reflect principled concerns that merit has been violated because qualifications are not the sole decision criteria (Bobocel et al., 1998; Sniderman & Carmines, 1997). On the other hand, such arguments could be used to mask a motive to maintain and legitimize group-based inequalities (Bobocel et al., 1998; Dovidio & Gaertner, 1996; Lowery, Unzueta, Knowles, & Goff, 2006). We hypothesized that both these processes have independent influences and jointly predict opposition to AA.

### The Main Effects of Hierarchy-Legitimizing Ideologies

In the current study, we broadened our investigation of hierarchy-legitimizing ideologies to explicit sexism, implicit sexism, SDO, and RWA. We hypothesized that people with stronger (vs. weaker) hierarchy-legitimizing ideologies might not see a need for or want AA because they more strongly believe that current systems are just and nondiscriminatory, beneficiaries are undeserving of assistance in the workplace, and it is good for some groups to have fewer opportunities. Thus, there should be a main effect of hierarchy-legitimizing ideologies on opposition to AA, such that people with stronger (vs. weaker) hierarchy-legitimizing ideologies should be more opposed, regardless of the nature of the program.

In Canada, women are—and are perceived to be—the primary beneficiaries of AA (Agócs & Burr, 1996; Taggar, Jain, & Gundersen, 1997). Consequently, people who are more sexist oppose AA more strongly than people who are less sexist (Davey et al., 1999;

Tougas, Brown, Beaton, & Joly, 1995). We investigated modern sexism precisely because it includes the denial of discrimination as a core component, is blended with conservatism (Sears & Henry, 2003), and is positively related to the belief that meritocracy exists (Study 1). Thus, by testing the unique effects of people's preference for the merit principle on people's opposition to AA while controlling for modern sexism, we can account for potential confounds with multiple system justification beliefs. We predicted that people higher (vs. lower) in modern sexism should be more opposed to AA—regardless of the specifics of the program—because they do not perceive women as needing AA, given that current systems are fair.

Women are perceived as less competent than men for high-status occupations (Eagly & Mladinic, 1989; Ridgeway, 2001), and a lack of respect for women is a key determinant of workplace gender discrimination (Jackson, Esses, & Burris, 2001). These processes likely occur automatically (e.g., some people automatically associate incompetence more with women than with men). Such automatic associations could drive reactions to programs that assist women in the workplace.<sup>2</sup> We predicted that participants who were higher (vs. lower) in implicit sexism should be more opposed to AA (regardless of the program type) because it would help to hire and promote women who are stereotyped as undeserving.

In addition to women, “visible minorities” are key beneficiaries of AA in Canada. Multiple ethnic groups fall under this label. Whereas some (e.g., Blacks) might be negatively stereotyped as less competent, others (e.g., South or East Asians, Canada's largest visible ethnic minority groups) might be positively stereotyped as highly competent. Instead of assessing explicit and implicit racism for numerous ethnic groups, we focused on the two strongest predictors of prejudice: SDO and RWA (Altemeyer, 1998; McFarland & Adelson, 1996; Song Hing & Zanna, 2010). SDO predicts prejudice toward subordinate groups, and RWA predicts prejudice toward unconventional groups (Duckitt, 2006). Both SDO and RWA predict opposition to AA (Altemeyer, 1994; Federico & Sidanius, 2002; Sidanius, Pratto, & Bobo, 1996). Therefore, we predicted that people higher in SDO or RWA should be more opposed to all types of AA than those lower in SDO or RWA because programs could improve the status of subordinate (and/or unconventional) groups.

### The Conditional Effects of Preference for the Merit Principle

If prescriptive beliefs about merit reflect a genuine justice principle, they should predict opposition to AA only when a program violates this principle (Bobocel et al., 1998). Thus, we had participants evaluate an equal treatment (ET) program that was by design merit upholding and a preferential treatment (PT) program that was by design merit violating. Preference for the merit principle should interact with program type to produce opposition. That is, people with a stronger (vs. weaker) preference for the

<sup>2</sup> An evaluative implicit association test (e.g., pleasant/unpleasant) was not used because people tend to evaluate women more positively than men (Eagly & Mladinic, 1989), even with implicit measures (Richeson & Ambady, 2001; Rudman & Goodwin, 2004).



merit principle should be more opposed to a potentially merit-violating PT program; however, preference for merit should not predict opposition to a merit-upholding ET program. It is important that these effects should hold when controlling for any potential confounds with modern sexism, implicit sexism, SDO, and RWA.

Finally, we predicted that preference for the merit principle should interact with hierarchy-legitimizing ideologies and with the type program to produce opposition. We expected that among people who strongly endorsed hierarchy-legitimizing ideologies, prescriptive beliefs about merit should not influence reactions. This is because, regardless of their preference for the merit principle, people who more strongly endorse hierarchy-legitimizing ideologies should be motivated to oppose AA due to its potential redistributive power. In contrast, among people who weakly endorsed hierarchy-legitimizing ideologies, a stronger prescriptive preference for merit should lead to relatively more opposition to programs that violate the merit principle (i.e., the PT program). We predicted that modern sexism and implicit sexism were most likely to moderate the effects of preference for the merit principle, given that they are most pertinent to the situational context (because women are the most typical beneficiaries of AA). However, we also explored the moderating roles of SDO and RWA on preference for the merit principle.

## Method

**Participants.** In Phase 1, 1,284 (338 men, 945 women, 1 gender unspecified) introductory psychology students completed a mass-testing questionnaire. In Phases 2 and 3, 160 students (77 men, 83 women) completed the implicit association test or IAT (Greenwald, McGhee, & Schwartz, 1998) and an AA survey with order of program (ET, PT) assigned randomly. Participants were 17 to 28 years old ( $M = 19.40$  years,  $SD = 1.56$ ). They received one research credit for Phases 2 and 3, which took an hour.

**Procedure and materials.** In Phase 1, as part of mass testing, participants completed the 15-item Preference for the Merit Principle Scale (Davey et al., 1999), as well as the same Modern Sexism, SDO, and RWA Scales as in Study 1. A subsample of randomly selected participants participated in two consecutive yet purportedly unrelated sessions.

In Phase 2, a White female investigator ran two participants at a time through the IAT. She told participants that she was assessing their speed of responding to a variety of stimuli. A fake random draw selected the categories Men, Women, Competent, and Incompetent. Participants were told to think of competence and incompetence at work. Competence and incompetence target words were selected from the extreme positive and negative ends of the intellectual desirability dimension of person perception (Rosenberg, Nelson, & Vivekananthan, 1968) and from the competence factor of group stereotypes (Fiske, Cuddy, Glick, & Xu, 2002). Examples include *industrious*, *skillful*, *unintelligent*, and *irresponsible*. The target words for the categories Men and Women were first names that were matched by first letter and length (e.g., *Adam*, *Brad*, *Anne*, *Beth*) from Blair and Banaji (1996). Participants completed practice blocks before the critical blocks. In the congruent block, the categories “Men” and “Competent” shared a response key as did “Women” and “Incompetent.” In the subsequent incongruent block, the categories Women and Competent

shared a response key, as did the categories Men and Incompetent. Upon misclassifying a word, participants were required to re-sort it. Thus, errors are reflected by longer response times (ms).

For Phase 3, participants were led to a second, ostensibly unrelated session run by a White, male research assistant, who was conducting a corporate survey. To enhance mundane realism, he informed participants that Cochrane Industries was surveying “tomorrow’s workforce” on its reactions to a prospective workplace policy. Participants were given a professional-looking survey, which described two AA programs, operating successfully at “Corporation A” and “Corporation B,” that Cochrane was considering adopting (program order was counterbalanced).

Under the PT program, women or visible minority group members who met a minimum, yet adequate, qualification level would be given preference over White men in hiring and promotion, even if they were relatively less qualified. Under the ET program, special programs, such as parental leave, flextime, mentorship, and training and development, would be offered to all employees but might have the most benefit for unrepresented group members. To increase psychological realism, we told participants that they were voting anonymously on whether Cochrane should adopt such AA programs (see Bobocel et al., 1998).

Participants’ perceptions of the programs as merit violating were assessed with the questions “What is the likelihood that a less qualified target-group member (woman or visible minority) would be hired or promoted before a more qualified white male” and “What is the likelihood that the most deserving (or meritorious) candidate would be hired or promoted (R)?” (1 = *extremely unlikely* to 7 = *extremely likely*). The two items were related for the PT program,  $r(158) = .56, p < .001$ , and for the ET program,  $r(158) = .33, p < .001$ , and therefore were aggregated. Evaluations of the program were assessed with a bipolar scale: “How likely is it that you would recommend to Cochrane’s affirmative action committee that Cochrane implement Corporation A/B’s program?” (1 = *extremely unlikely* to 7 = *extremely likely*). This item was recoded so that higher numbers indicate more opposition.

After participants had completed the Cochrane survey, we probed them for suspicion and then debriefed them about the true purpose of the study. None of the participants were suspicious.

## Results

**Preliminary analyses.** Participants’ average response latencies for the IAT critical blocks fell within the recommended range of 300 to 3,000 ms (Greenwald & Nosek, 2001). IAT scores were computed with the traditional scoring procedure (mean latencies for the test congruent block were subtracted from mean latencies for the test incongruent block).<sup>3</sup>

As shown in Table 3, preference for the merit principle was unrelated to modern sexism,  $r(158) = -.06, p = .44$ ; implicit sexism,  $r(158) = -.09, p = .28$ ; and RWA,  $r(158) = .01, p = .94$ . It is of interest that the more strongly participants endorsed the merit principle, the *lower* they scored in SDO,  $r(158) = -.16, p = .04$ . Thus, people who more strongly endorsed merit did not have stronger hierarchy-legitimizing ideologies. Consistent with previ-

<sup>3</sup> The new scoring algorithm (Greenwald, Nosek, & Banaji, 2003) could not be employed because, due to experimenter error, data were saved only at the block level.

Table 3  
 Study 3: Descriptive Statistics and Intercorrelations for Study Sample

Variable	<i>M</i>	<i>SD</i>	Min	Max	PMP	MS	IS	SDO	RWA	ET	PT
PMP <sup>a</sup>	5.14	0.56	3.80	7.00	(.65)						
MS <sup>b</sup>	2.63	0.63	1.00	4.88	-.06	(.77)					
IS	27.32	156.77	-423.88	548.33	-.09	.08	—				
SDO <sup>a</sup>	2.71	0.99	1.00	5.31	-.16*	.13	.17*	(.92)			
RWA <sup>c</sup>	-0.78	0.98	-3.83	2.83	.01	.09	-.07	.30***	(.90)		
ET <sup>a</sup>	2.76	1.12	1.00	6.00	-.17*	.08	.08	.17*	.04	—	
PT <sup>a</sup>	5.20	1.50	1.00	7.00	.26***	.16*	.16*	-.06	-.05	-.30***	—
AA <sup>a</sup>	3.98	0.79	2.00	6.00	.13	.19*	.22**	.05	-.02	.42***	.74***

Note. *N* = 160. Numbers in parentheses are Cronbach's alphas. PMP = preference for the merit principle; MS = modern sexism; IS = implicit sexism; SDO = social dominance orientation; RWA = right-wing authoritarianism; ET = opposition to the equal treatment program; PT = opposition to the preferential treatment program; AA = opposition to both affirmative action programs.

<sup>a</sup> 1–7 scale. <sup>b</sup> 1–5 scale. <sup>c</sup> –4 to 4 scale.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

ous research (Rudman, 2004), there was no relation between implicit and modern sexism,  $r(158) = .08$ ,  $p = .29$ .

Exploratory analyses were conducted to investigate the role of participants' gender. Men scored higher than women in modern sexism, implicit sexism, and SDO ( $ps < .001$ ) but not RWA ( $p = .14$ ). Because gender did not significantly predict preference for the merit principle,  $t(158) = 0.33$ ,  $p = .74$ ; opposition to the ET program,  $t(158) = 1.82$ ,  $p = .07$ ; or the PT program,  $t(158) = 1.90$ ,  $p = .06$ , it was not included in further analyses.<sup>4</sup> As intended, participants perceived the PT program ( $M = 4.93$ ,  $SD = 1.28$ ) to be more merit violating than the ET program ( $M = 3.19$ ,  $SD = 1.09$ ),  $t(159) = 12.01$ ,  $p < .001$ , Cohen's  $d = 1.46$ .

**Main analyses.** We followed procedures laid out by Pedhazur (1982) for analyzing mixed designs with categorical and continuous variables (i.e., criterion-scaled regression). For more information see Gibbons and Sherwood (1985). In a first block, program order was treated as a covariate (see Table 4).<sup>5</sup> In a second block, the continuous, centered, between-subjects factors were tested: preference for the merit principle, modern sexism, implicit sexism, SDO, RWA, Preference for the Merit Principle  $\times$  Modern Sexism, Preference for the Merit Principle  $\times$  Implicit Sexism, Preference for the Merit Principle  $\times$  SDO, and Preference for the Merit Principle  $\times$  RWA. In a third block, program (ET = -1 or PT = 1) and its interactions with all other predictors were tested as repeated-measures factors (see Table 4).

First, we consider the between-subjects predictors. A significant effect of program order was found,  $F(1, 149) = 16.06$ ,  $p = .007$ ,  $\eta^2 = .097$ . Participants were more opposed to the programs overall when they saw the ET program followed by the PT program ( $M = 4.19$ ,  $SD = 0.78$ ) than vice versa ( $M = 3.77$ ,  $SD = 0.75$ ). In addition, there was a significant effect of preference for the merit principle,  $F(1, 149) = 6.79$ ,  $p = .01$ ,  $\eta^2 = .044$ , such that participants with a stronger preference for the merit principle were more opposed to the AA programs. As predicted, a unique effect of modern sexism was found,  $F(1, 149) = 6.36$ ,  $p = .01$ ,  $\eta^2 = .041$ . More sexist participants were more opposed to the AA programs. Similarly, as predicted, a unique effect of implicit sexism was found,  $F(1, 149) = 7.99$ ,  $p = .005$ ,  $\eta^2 = .051$ , such that participants who held stronger implicit biases concerning women's incompetence were more opposed to the AA programs.

Second, we consider the effects of type of program (within-subjects) and its interactions with the between-subjects predictors.

There was a significant effect of type of program,  $F(1, 149) = 225.05$ ,  $p < .001$ ,  $\eta^2 = .602$ . Participants were more opposed to the PT program ( $M = 5.20$ ,  $SD = 1.50$ ) than to the ET program ( $M = 2.76$ ,  $SD = 1.12$ ). Neither the main effect of modern sexism nor that of implicit sexism was moderated by program type. However, as predicted, there was a Program  $\times$  Preference for the Merit Principle interaction,  $F(1, 149) = 10.67$ ,  $p < .001$ ,  $\eta^2 = .067$ . The stronger their preference for the merit principle, the more participants opposed the potentially merit-violating PT program ( $B = 0.78$ ,  $SE B = 0.19$ ,  $p < .001$ ). In contrast, when the ET program was evaluated, preference for the merit principle was not significantly related to evaluations of the program ( $B = -0.24$ ,  $SE B = 0.14$ ,  $p = .08$ ).

A three-way interaction emerged for Program  $\times$  Preference for the Merit Principle  $\times$  Modern Sexism,  $F(1, 149) = 3.90$ ,  $p = .05$ ,  $\eta^2 = .025$ . We conducted moderated multiple regression analyses examining the Preference for the Merit Principle  $\times$  Modern Sexism interaction within each program type. For this and all subsequent analyses, the between-subjects predictors from the main analyses were included as predictors. The Preference for the Merit Principle  $\times$  Modern Sexism interaction was significant for opposition to the PT program ( $B = -0.62$ ,  $SE B = 0.28$ ,  $p = .03$ ,  $sr^2 = .027$ ) and was nonsignificant for the ET program ( $B = 0.19$ ,  $SE B = 0.22$ ,  $p = .38$ ,  $sr^2 = .004$ ). No other hierarchy-legitimizing ideologies qualified the Program  $\times$  Preference for the Merit Principle two-way effect.

The interaction for opposition to the PT program was plotted at one standard deviation above and below the mean of each predictor (see Figure 2). Simple effects tests were conducted as outlined by Aiken and West (1991). As hypothesized, among participants lower in modern sexism, the stronger their preference for the merit principle, the more they opposed the PT program ( $B = 1.14$ ,  $SE B = 0.27$ ,  $p < .001$ ,  $sr^2 = .10$ ). In contrast, among participants higher in modern sexism, the effect of preference for the merit

<sup>4</sup> When gender is included as a moderator in exploratory analyses, only two of 20 potential effects were statistically significant. The central findings do not change if gender is included as a factor or as a covariate.

<sup>5</sup> We conducted exploratory analyses with criterion-scaled regression with order of program as a factor. Only three of 19 possible interactions were significant, so we treated order as a covariate.

Table 4  
Study 3: Criterion-Scaled Regression for Predicting Opposition to Affirmative Action

Predictor	<i>F</i>	$\eta^2$
Between effects		
Order of program	16.06**	.097
Preference for the merit principle (PMP)	6.79**	.044
Modern sexism (MS)	6.36**	.041
Implicit sexism (IS)	7.99**	.051
Social dominance orientation (SDO)	0.02	.000
Right-wing authoritarianism (RWA)	0.68	.005
PMP × MS	2.21	.015
PMP × IS	0.82	.005
PMP × SDO	2.24	.015
PMP × RWA	0.32	.002
Within effects		
Program	225.05***	.602
Program × Order of Program	0.47	.003
Program × PMP	10.67***	.067
Program × MS	2.06	.014
Program × IS	1.73	.011
Program × SDO	3.09	.020
Program × RWA	0.05	.000
Program × PMP × MS	3.90*	.025
Program × PMP × IS	0.67	.004
Program × PMP × SDO	0.85	.006
Program × PMP × RWA	0.06	.000

Note. *N* = 160.

\* *p* = .05. \*\* *p* < .01. \*\*\* *p* < .001.

principle on opposition to the PT program was nonsignificant ( $B = 0.38$ ,  $SE B = 0.26$ ,  $p = .15$ ). Thus, preference for the merit principle predicted opposition only to a merit-violating program and only among less sexist participants.

## Discussion

The results of Study 3 support our hypothesis that reactions to redistributive policies are driven by people's hierarchy-legitimizing ideologies and prescriptive beliefs about merit: Both unique and interactive effects are found. Consistent with previous research on traditional sexism (Konrad & Hartmann, 2001) and neo-sexism (Tougas et al., 1995), modern sexism predicts opposition to AA. More important, our data are the first to demonstrate that implicit sexism predicts opposition to AA: The more people automatically associate incompetence (vs. competence) with women (vs. men), the more they are opposed to programs designed to increase the representation of women in the workplace. Regardless of whether programs are merit violating or upholding, people who are more explicitly or implicitly sexist are more opposed to AA than are their less sexist counterparts.

There is debate about the validity of the IAT because factors (e.g., category salience) other than personal attitudes affect performance on the task, which could reflect measurement error (Rothermund & Wentura, 2004). To know whether the IAT in fact assesses implicit attitudes, one must test its ability to predict relevant attitudes and behaviors. In the current study, we found good evidence of the predictive validity of an implicit sexism IAT: It predicts opposition to AA when controlling for other relevant predictors (e.g., modern sexism, SDO). Our findings are consistent

with a recent meta-analysis, which revealed that the IAT had strong predictive validity for the domain of prejudice (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). In addition, that implicit sexism affects voting on programs in a corporate survey is consistent with findings that implicit attitudes can predict highly deliberative behavior, such as evaluations of a job candidate (Lambert, Payne, Ramsey, & Shaffer, 2005; Son Hing, Chung-Yan, Hamilton, & Zanna, 2008), and not only more spontaneous behaviors.

Unlike the measures of sexism, those of SDO and RWA failed to predict opposition to AA. This is somewhat surprising because reducing group-based inequality and assisting beneficiaries from subordinate groups should affront high SDOs; changing the status quo and assisting beneficiaries from unconventional groups should affront high RWAs. It is possible that sexism is a more powerful predictor than SDO or RWA; participants might have thought of the beneficiaries as women because (White) women are indeed the most frequent beneficiaries of AA (Kalev, Dobbin, & Kelly, 2006). Furthermore, the ET program provided benefits that women might be particularly likely to use (e.g., day care, parental leave, flextime). Perhaps if the study materials primed subordinate groups (e.g., Blacks) and unconventional groups (e.g., Native Americans) as beneficiaries, SDO and RWA would predict opposition to AA.

As hypothesized, prescriptive beliefs about merit interacted with a salient hierarchy-legitimizing ideology. Among those lower in modern sexism, the more participants endorsed the merit principle, the more they opposed the potentially merit-violating PT program. In contrast, those higher in modern sexism were relatively opposed to the PT program, regardless of their preference for the merit principle. Thus, merit-based opposition to AA was evident only among those who failed to endorse the hierarchy-legitimizing ideology of modern sexism. It should be noted that implicit sexism, SDO, and RWA were controlled.

The results of Study 3 support the notion that prescriptive beliefs about merit are independent of hierarchy-legitimizing ideologies. People who more strongly (vs. weakly) endorse the notion that outcomes ought to be allocated on the basis of merit were no more likely to hold sexist attitudes toward women at the explicit level, hold implicit biases concerning women's versus men's competence (a novel finding), or be authoritarian. They were less likely to be high in SDO. It is of course still possible that preference for

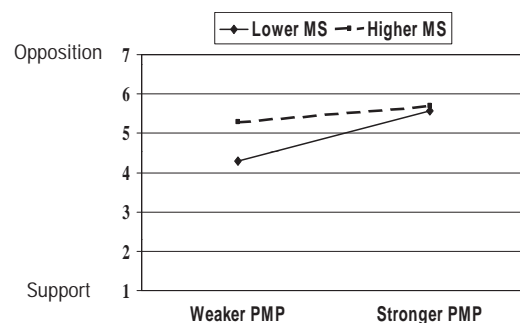


Figure 2. Study 3: Reactions to the preferential treatment program as a function of preference for the merit principle (PMP) and modern sexism (MS).

the merit principle is related to implicit prejudice toward other specific groups that could benefit from AA, something that we did not assess.

Further, supporting the notion that opposition to AA can be due to genuine concerns about merit violation, the effect of prescriptive beliefs about merit was contingent on the specifics of the AA program. Participants with stronger (vs. weaker) prescriptive beliefs about merit were more opposed to the PT program (which was perceived to be merit violating). The same was not true for the ET program (which was perceived to be merit upholding).

Together, the findings of Study 3 support the notion that a preference for the merit principle does not reflect hierarchy-legitimizing motives. Yet, it is possible that those with stronger (vs. weaker) prescriptive beliefs about merit are particularly opposed to the PT (vs. ET) program because only the former is likely to result in a substantive redistribution of jobs to disadvantaged group members. Therefore, in Study 4, we examined whether participants with stronger (vs. weaker) prescriptive beliefs about merit can in fact be more supportive of programs that threaten the status quo by distributing outcomes to disadvantaged groups (e.g., women, ethnic minorities).

### Study 4

Our goal in Study 4 was to test whether, among people with weak hierarchy-legitimizing ideologies, preference for the merit principle can predict greater support for programs that disrupt the status quo by redistributing outcomes to disadvantaged groups. If such programs are seen as merit restoring and if prescriptive beliefs about merit reflect a genuine justice principle, the stronger people's preference for the merit principle, the greater support people should express. This would be a powerful demonstration that a prescriptive belief about merit is not a hierarchy-enhancing ideology aimed at maintaining a hierarchical status quo.

We had participants evaluate two diversity initiatives, which are voluntary organizational programs to increase and manage diversity in the workplace (Richard, Fubara, & Castillo, 2000). A new strong program was designed that could be seen as potentially merit restoring. For this differential treatment (DT) program, all candidates pass multiple hurdles (résumé screening, interview). Then, on a cognitive abilities test, a lower cutoff score is used for women and ethnic minority groups because, it is said, they tend to score lower on average than White men. We reasoned that if people infer that group differences reflect a culturally biased test, the program should be seen as merit restoring because differential cutoff scores correct for beneficiary groups' underestimated cognitive abilities (Smith-Winkelman & Crosby, 1994; Son Hing, Bobocel, & Zanna, 2002). This is a realistic program, given that cognitive ability tests are widely used in selection although they suffer from group differences leading to adverse impact in hiring rates (Chung-Yan & Cronshaw, 2002). The second program was the PT program.

A new hierarchy-legitimizing ideology was explored: people's beliefs about bias in organizational selection and performance evaluation practices. People who are motivated to rationalize the system as just should be more likely to believe that within the workplace, selection systems and performance evaluations are conducted in a fair and impartial manner. We predicted that people who more (vs. less) strongly believe that organizational

evaluation practices are bias free should be more opposed to diversity initiatives and believe them to be unnecessary.

We hypothesized that the effect of preference for the merit principle on reactions to diversity initiatives should depend on the degree to which people ascribe to the system justification belief that organizational evaluation practices are bias free. Thus, we predicted a Preference for the Merit Principle  $\times$  Beliefs About Bias interaction. Among people who strongly believe that organizational evaluation practices are bias free, the diversity initiatives might be seen as unjustifiably helping beneficiaries. Thus, for these individuals, preference for the merit principle should not predict opposition to the diversity initiatives because everyone should be relatively opposed to these "unnecessary programs." In contrast, among people who believe that biases operate against women and ethnic minority groups in the assessment of their qualifications and performance, the diversity initiatives might be seen as counteracting test bias and thus restoring merit-based selection. Therefore, for these individuals, the stronger their preference for the merit principle, the more they should support the diversity initiatives and perceive them to be more merit restoring.

Finally, given the results of Study 3, the PT program might be seen as less merit restoring overall than the DT program. Therefore, we explored whether a Program  $\times$  Preference for the Merit Principle  $\times$  Beliefs About Bias interaction would emerge such that the earlier predicted two-way interaction is stronger for the DT (vs. PT) program.

### Method

**Participants.** In Phase 1 of the study, 793 (178 men, 615 women) introductory psychology students completed mass testing. In Phase 2, 87 participants (46 men, 41 women) completed the Cochrane corporate survey. Age ranged from 18 to 37 ( $M = 19.84$  years,  $SD = 2.85$ ). Participants were randomly assigned to assess either the DT or the PT program first, and they were compensated with one research credit. The data from two participants were excluded from analyses because of reported suspicion.

**Procedure and materials.** In Phase 1, as part of mass testing, participants completed the same Preference for the Merit Principle Scale (Davey et al., 1999) as in Study 3. They also completed a 12-item Beliefs About Bias Scale, which measures beliefs about how women's and ethnic minorities' merit is evaluated in selection, promotion, and performance evaluations in the workplace. Some items refer to bias-free evaluations ("Currently, selection systems recognize the full potential of visible minority candidates because cultural diversity, language skills, and different perspectives are appropriately valued by organizations"), and others refer to biased evaluations ("Currently, women are disadvantaged by biases in selection because selection tools fail to take into account less traditional skills and abilities such as emotional intelligence and interpersonal skills"; 1 = *strongly disagree* to 7 = *strongly agree*). Items were coded so that higher numbers reflect a greater belief in bias-free evaluations.

Potential respondents were contacted to participate in a corporate survey for Cochrane Industries (conducted by a White man). The study materials differed from those in Study 3 in that the term *Diversity Initiatives* was used rather than *Affirmative Action*. Participants evaluated the DT and PT programs (order counterbalanced). With the DT program, job candidates who have good

résumés and who perform well on an interview are administered a cognitive abilities test. Purportedly, on average, White men score higher on the cognitive abilities test than do women or ethnic minorities, so White men who score 600 or above and women or ethnic minorities who score 550 or above are hired (test scores were said to range from 250 to 750).

We assessed perceptions of the programs as restoring merit-based selection with two items: "This program would correct for biases that exist in the assessment of candidates' qualifications" and "This program will help administrators at Cochrane hire and promote deserving target-group members" (1 = *strongly disagree* to 7 = *strongly agree*). The items were aggregated for the DT program,  $r(83) = .58, p < .001$ , and for the PT program,  $r(83) = .38, p < .001$ .

Evaluations of the program were assessed with bipolar items: "What is your opinion of Corporation [A's/B's] diversity initiative?" (1 = *extremely unfavorable* to 7 = *extremely favorable*) and "How likely is it that you would recommend to Cochrane's diversity initiative committee that Cochrane implement Corporation [A's/B's] program?" (1 = *extremely unlikely* to 7 = *extremely likely*). Items were recoded, so that higher numbers indicate greater opposition, and were aggregated for the DT program,  $r(83) = .91, p < .001$ , and the PT program,  $r(83) = .84, p < .001$ .

## Results

**Preliminary analyses.** Reliability analyses revealed that one item of the Preference for the Merit Principle Scale had a corrected item-total correlation below .10. This item was dropped from the scale, which led to a higher internal consistency (Cronbach's  $\alpha$ s = .69–.72). The Belief About Bias Scale had good reliability (see Table 5). Preference for the merit principle was unrelated to beliefs that evaluations in organizations are bias free,  $r(83) = .13, p = .25$ . Thus, people with a stronger preference for merit were no more likely than others to endorse this system justification belief. Similar results were found with the larger mass-testing sample.

Women were less likely to believe that evaluations are bias free ( $M = 3.84, SD = 0.81$ ) than were men ( $M = 4.42, SD = 0.80$ ),  $t(83) = 3.40, p = .001$ , Cohen's  $d = 0.72$ . However, men and women did not differ in their level of preference for the merit principle or opposition to the DT and PT programs ( $ps > .82$ ). Exploratory analyses revealed that gender did not moderate any of the predictors, and if it is treated as a covariate the findings remain the same. Therefore, as in previous studies, analyses were con-

ducted collapsed across participant gender. Surprisingly, participants perceived the DT program ( $M = 4.02, SD = 1.26$ ) and the PT program ( $M = 3.87, SD = 1.11$ ) as equally likely to promote merit-based selection,  $t(84) = 0.97, p = .34$ .

**Main analyses.** Criterion-scaled regression analyses were used to test the effects of people's preference for the merit principle, beliefs about bias, program, and their interactions on opposition to the diversity initiatives. There were no effects of the order in which programs were presented to participants on reactions to the programs, so it was not included in the analyses. First, we consider the between-subjects predictors. The predicted main effect of beliefs about bias did not emerge (see Table 6). However, the predicted Preference for the Merit Principle  $\times$  Beliefs About Bias interaction was significant,  $F(1, 81) = 6.48, p = .01, \eta^2 = .074$ . The pattern of the interaction is shown in Figure 3. Simple effects tests revealed that, as predicted, among participants who believed that evaluations are biased, the stronger their prescriptive preference for merit-based outcomes, the less they opposed (and the more they supported) the diversity initiatives ( $B = -0.63, SE B = 0.28, p = .03, sr^2 = .059$ ). In contrast, among participants who strongly believed that evaluations are bias free, the effect of people's preference for merit principle on opposition to the programs was nonsignificant ( $B = 0.45, SE B = 0.30, p = .14, sr^2 = .025$ ). No other between-subjects predictors were significant.

Second, we consider the within-subjects effects of type of program (DT = -1, PT = 1) and its interactions with the between-subjects predictors. There was a significant effect of program on opposition,  $F(1, 81) = 10.25, p = .002, \eta^2 = .112$ . Participants were more opposed to the PT program ( $M = 5.18, SD = 1.42$ ) than the DT program ( $M = 4.49, SD = 1.58$ ). No significant program interactions emerged. Thus, the Preference for the Merit Principle  $\times$  Beliefs About Bias interaction was consistent across the two programs.

## Discussion

The results of Study 4 indicate that people with a stronger (vs. weaker) preference for the merit principle do not always align themselves with dominant-group interests or support the status quo. As expected and consistent with the findings of Son Hing et al. (2002), people's preference for the merit principle interacts with people's beliefs about bias in organizational evaluation practices to produce reactions to strong programs that would help to hire and promote beneficiary groups. Among those who believed

Table 5  
Study 4: Descriptive Statistics and Intercorrelations for Study Sample

Variable	<i>M</i>	<i>SD</i>	Min	Max	PMP	BAB	DT	PT
PMP	5.42	0.63	3.57	6.86	(.72)			
BAB	4.14	0.85	2.00	6.25	.13	(.88)		
DT <sup>a</sup>	4.49	1.58	1.00	7.00	-.09	.01	(.91)	
PT <sup>a</sup>	5.18	1.42	1.00	7.00	.01	.16	.16	(.84)
DI	4.84	1.14	2.25	7.00	-.06	.11	.79***	.73***

Note.  $N = 85$ . Numbers in parentheses are Cronbach's alphas. *SD* = standard deviation; PMP = preference for the merit principle; BAB = beliefs about bias; DT = opposition to the differential treatment program; PT = opposition to the preferential treatment program; DI = opposition to both diversity initiatives.

<sup>a</sup> Index of reliability is a correlation coefficient.

\*\*\*  $p < .001$ .

that evaluations are biased, the more strongly (vs. weakly) participants preferred merit-based outcome allocations the more they supported diversity initiatives involving differential and preferential treatment. This is the first demonstration that, under some conditions, people’s prescriptive beliefs about merit can motivate greater support of programs that will promote the interests of disadvantaged groups. In contrast, we found that, among participants who believed that organizational evaluations are bias free, endorsement of the merit principle did not predict reactions to diversity initiatives. Perhaps because bias in evaluations is not seen as a problem, diversity initiatives are not seen as necessary, and so people tend to oppose such initiatives regardless of their preference for the merit principle.

Unlike Study 3, program type (i.e., DT vs. PT) did not moderate the effect of people’s preference for the merit principle on reactions. This is likely because participants viewed the two programs as equivalently—and moderately—merit restoring. The difference in reaction to the PT program between Study 3 and Study 4 might be due to the negative associations people have with the label “affirmative action” (Study 3) relative to “diversity initiatives” (Study 4). For instance, Whites associate quotas with AA, which leads to greater perceptions of merit violation (Reyna, Tucker, Korfmacher, & Henry, 2005).

People’s preference for merit-based outcomes was unrelated to their beliefs regarding the existence of bias in organizational evaluations of women and ethnic minorities: The constructs are orthogonal. Recall that the denial of discrimination against subordinate groups is a core component of system justification and of modern forms of prejudice (Jost et al., 2004; McConahay, 1986). Thus, we again found evidence that prescriptive beliefs about merit operate independently of hierarchy-legitimizing ideologies.

The current study has important theoretical implications, but it also has important practical implications. Cognitive ability testing is widely used in selection systems (Hunter, 1986). However, group differences on cognitive tests overestimate the group differences that are observed in on-the-job performance ratings (Chung-Yan & Cronshaw, 2002). Relatively lower test scores are thus likely due to stereotype threat in the test-taking environment. A recent meta-analysis revealed that when stereotype threat is reduced, stereotyped individuals outperform nonstereotyped individuals when they are matched for past performance levels (Walton & Spencer, 2009). This suggests that the cognitive abilities of ste-

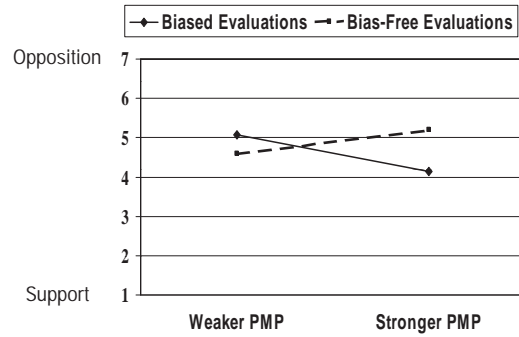


Figure 3. Study 4: Reactions to the diversity initiatives as a function of preference for the merit principle (PMP) and beliefs about bias (BAB).

retyped (e.g., Black) potential employees are underestimated by standard test-taking environments. The current research shows that laypeople who recognize that biases exist against such groups intuit these processes, and if they have strong prescriptive beliefs about merit, they will be more supportive of corrective programs.

### General Discussion

#### Theoretical Implications

The results of the current research support our three major hypotheses. First, our findings support the notion that prescriptive beliefs about merit do not reflect system justification beliefs, prejudice, or social dominance orientation (SDO). This is important, given that researchers have recently linked descriptive beliefs that current society is a proper meritocracy to other system justification beliefs, prejudice, and antiegalitarianism (Federico & Sidanius, 2002; McCoy & Major, 2007). We found that, even with parallel wording in the measures, prescriptive and descriptive beliefs about merit-based outcome allocations are separate and only weakly related constructs. In addition, the two constructs demonstrate differential prediction. The belief that meritocracy exists is related to other hierarchy-legitimizing ideologies, such as political conservatism, racism, SDO, and right-wing authoritarianism (RWA). Preference for the merit principle is unrelated to these ideologies, to explicit and implicit sexism, and to beliefs about bias in the workplace for evaluations of women and ethnic minorities. Thus, whereas descriptive beliefs about merit can reflect motivations to legitimize a hierarchical status quo, prescriptive beliefs about merit do not.

Second, hierarchy-legitimizing ideologies and prescriptive beliefs about merit each uniquely predict reactions to organizational practices that benefit disadvantaged group members, but they do so in different ways.<sup>6</sup> On the one hand, people who are more implicitly or explicitly sexist oppose AA more—regardless of the specifics of the program—than do those who are less sexist. On the other hand, the effect of preference for the merit principle depends

<sup>6</sup> Main effects of hierarchy-legitimizing ideologies emerged for reactions to AA (Study 3) but not for gender discrimination (Study 2) or diversity initiatives (Study 4), perhaps because issues of group interests are particularly salient for AA.

Table 6  
Study 4: Criterion-Scaled Regression for Predicting Opposition to Diversity Initiatives

Predictor	F	η <sup>2</sup>
Between effects		
Preference for the merit principle (PMP)	0.24	.003
Beliefs about bias (BAB)	0.23	.003
PMP × BAB	6.48**	.074
Within effects		
Program	10.25**	.112
Program × PMP	0.36	.004
Program × BAB	0.80	.010
Program × PMP × BAB	0.00	.000

Note. N = 85.  
\*\* p ≤ .01.

on the nature of the program. When we controlled for hierarchy-legitimizing ideologies (i.e., modern and implicit sexism, SDO, and RWA), people with stronger prescriptive beliefs about merit were more opposed to a merit-violating program (the PT) but were no more opposed to a merit-upholding program (the ET) than were people who weakly endorsed the merit principle. Thus, it appears that implicit and explicit sexists oppose AA in principle (regardless of the program specifics), whereas people with a strong preference for the merit principle oppose AA only when practices violate merit.

Third, for all the organizational practices investigated, whether preference for the merit principle predicts reactions depends on people's motives to legitimize inequality. Among people who strongly endorse hierarchy-legitimizing ideologies (i.e., those high in modern sexism, those who believe that meritocracy exists, and those who believe that organizational evaluations are bias free), preference for the merit principle does not predict reactions to organizational practices. Rather, people motivated to legitimize inequality respond to organizational practices in a manner that reinforces the existing social hierarchy: In relation to others, they judge gender discrimination as more fair, and they oppose AA and diversity initiatives. Thus, for people motivated to benefit advantaged groups versus disadvantaged groups, the degree to which they endorse the merit principle is not relevant.

In contrast, among people who weakly endorse hierarchy-legitimizing ideologies (i.e., those low in modern sexism, those who do not believe that meritocracy exists, and those who believe that organizational evaluations are biased), preference for the merit principle predicts responses to organizational practices that affect the status quo. When organizational practices involve merit violation, the stronger people's preference for the merit principle, the more negatively people respond, regardless of whether practices uphold the status quo (i.e., sexism in selection) or challenge the status quo (i.e., preferential treatment in selection). But, when organizational practices are merit restoring (i.e., diversity initiatives), the stronger people's preference for the merit principle, the more positively they respond to programs that challenge the status quo. Thus, for those not motivated to uphold a hierarchical system, preference for the merit principle drives reactions depending on whether practices violate or restore merit and not depending on whether practices uphold or challenge the status quo.

A major debate in the AA literature involves the role of "principled conservatism" or "principled objections" in predicting opposition. On the one hand, some argue that conservatives oppose AA only when practices are merit violating, which is a principled objection because it is race neutral (Sniderman & Piazza, 1993). On the other hand, others argue that conservatives are biased to view beneficiaries as less meritorious (Federico & Sidanius, 2002; Reyna, Henry, Korfmacher, & Tucker, 2006). The current research indicates clearly that the reactions of people with a strong preference for the merit principle are principled. Their reactions depend on whether organizational practices are merit violating, upholding, or restoring—not on whether practices benefit advantaged or disadvantaged groups. Yet, there is nothing to suggest that these people are in fact conservative. Preference for the merit principle is unrelated to political conservatism and to authoritarianism more generally (Study 1). This suggests that conservatives are more likely than liberals to hold the belief that AA is merit violating because they see beneficiaries as less deserving (Reyna et

al., 2005); however, conservatives and liberals should have similar attitudes toward cases in which merit is violated. Therefore, whereas the principle of meritocracy on which conservatives draw on is race neutral, conservatives' beliefs about deservingness are not race neutral.

### Weaknesses and Strengths

Only student samples were used in the current research, and this raises potential issues. First, it is possible that opposition to diversity initiatives and AA would be higher among an employee sample than among a student sample, particularly for advantaged group members. However, a recent meta-analysis of the predictors of attitudes toward AA revealed that students in laboratory studies respond similarly to employees in field settings (Harrison, Kravitz, Mayer, Leslie, & Lev-Arey, 2006). Second, our sample had a moderate level of education. As people become more educated, the links between ideologies (e.g., SDO, individualism, and opposition to AA) that reinforce hierarchical social relations become stronger (Federico & Sidanius, 2002). With a more educated sample, SDO could play a stronger role in opposition to AA, but we assert that prescriptive beliefs about merit would still be unrelated to hierarchy-legitimizing ideologies.

In each study, we experimentally manipulated features of the organizational selection practices (i.e., gender of passed-over candidate, type of program). However, we consistently measured people's prescriptive beliefs about merit and people's hierarchy-legitimizing ideologies so as to examine how these beliefs and ideologies are related. Although correlational data present problems for interpreting causality, the findings of Study 1 eliminate potential concerns that preference for the merit principle is confounded with political conservatism, racism, sexism, RWA, and SDO. In addition, concerns about common method variance are minimized because (a) we tested for higher order interactions and (b) preference for the merit principle and hierarchy-legitimizing ideologies were unrelated. The one exception to the latter was the weak positive relation between prescriptive and descriptive beliefs about merit. Although this may have been due to parallel wording, it would be of interest to experimentally manipulate each of these constructs and test whether there is a causal effect on the other.

A strength of the research is that we explored a variety of hierarchy-legitimizing ideologies and organizational practices that uphold or challenge the status quo. With different selection practices (gender discrimination, AA, diversity initiatives) and across multiple hierarchy-legitimizing ideologies (i.e., modern sexism, beliefs that meritocracy exists, beliefs about bias), we found the same pattern of results: Preference for the merit principle predicts reactions to organizational practices only among people with weak hierarchy-legitimizing ideologies. However, not all of the hierarchy-legitimizing ideologies moderated the effects of preference for the merit principle. We believe that, depending on the context, the most salient hierarchy-legitimizing ideology should play the role of moderator; however, this should be tested further.

### Conclusion

What is the merit of meritocracy? Our findings indicate that, for theory and research on the construct of meritocracy to have continued value, social scientists must distinguish between descriptive

and prescriptive beliefs about meritocracy, both conceptually and empirically. Beliefs that meritocracy ought to exist are independent of beliefs that meritocracy does exist. The latter—beliefs that meritocracy does exist—can serve as a hierarchy-legitimizing ideology that justifies current societal inequality. In contrast, the former beliefs—that meritocracy ought to exist—reflect a preference for a particular norm of distributive justice and can in fact drive support for policies that challenge the status quo.

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