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Understanding Attitudes Toward Affirmative Action Programs in Employment: Summary and Meta-Analysis of 35 Years of Research

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Affirmative action programs (AAPs) are controversial employment policies in the United States and elsewhere. A large body of evidence about attitudinal reactions to AAPs in employment has accumulated over 35 years: at least 126 independent samples involving 29,000 people. However, findings are not firmly established or integrated. In the current article, the authors summarize and meta-analytically estimate relationships of AAP attitudes with (a) structural features of such programs, (b) perceiver demographic and psychological characteristics, (c) interactions of structural features with perceiver characteristics, and (d) presentation of AAP details to perceivers, including justification of the AAP. Results are generally consistent with predictions derived from self-interest considerations, organizational justice theory, and racism theories. They also suggest practical ways in which AAPs might be designed and communicated to employees to reduce attitudinal resistance.

Keywords: affirmative action, preferential treatment, racism, justice, gender differences

Few workplace policies are as controversial or divisive as affirmative action programs (AAPs; Crosby, 2004; Mills, 1994). They attempt to redress or reduce historical forms of discrimination based on demographic distinctions among employees, but they simultaneously mandate social categorizations on the basis of those same distinctions. They can serve as a flashpoint for racial and gender opinion conflict, as well as a bifurcation point for perceptions of distributive and procedural injustice (Crosby & VanDeVeer, 2000; Kravitz et al., 1997).

Although AAPs arguably began in the United States, governments worldwide now have laws and regulations prompting organizations to reduce workplace discrimination (Burstein, 1994; Jain, Sloane, Horwitz, Taggar, & Weiner, 2003). These regulations require organizations to establish equal opportunity policies and often to take additional steps to improve the employment opportunities of members of underrepresented groups. In the United States, Executive Order No. 11246 (1965) requires federal contractors to take affirmative actions to improve employment opportunities of demographic groups such as women and racial minorities (Gutman, 2000; Spann, 2000). This covers 26 million individuals—nearly 22% of the U.S. workforce (92,500 nonconstruction and 100,000 construction establishments; Office of Federal Contract Compliance Programs, 2002). Affirmative action programs are also required in the federal civil service, in all branches of the U.S. military, and in many state and local governments (Crosby, 2004; Reskin, 1998).

Given this backdrop, it is clear that an understanding of psychological reactions to workplace AAPs is important. We assume that such reactions, especially employee attitudes, play critical roles in the development of affirmative action policies and in the success of organizational AAPs. Indeed, supportive attitudes among managers and employees have been identified as a crucial factor for determining AAP effectiveness (Hitt & Keats, 1984). As this might suggest, most organizational research in this domain has dealt with the antecedents of attitudes toward AAPs (Crosby, 1994), where *attitude* can be defined as an evaluative judgment about a given object (Fishbein & Ajzen, 1975, p. 6). If AAP attitudes were better predicted and understood, practitioners could more successfully deal with AAP-related conduct (Ajzen & Fishbein, 1980; Kraus, 1995), such as behavioral support or resistance among incumbent employees (Bell, Harrison, & McLaughlin, 2000).

Research on antecedents of AAP attitudes is both broad and long-standing. It has appeared regularly in psychology, management, sociology, political science, law, and other literatures over the past 30 years, and it has generated a vast body of evidence. The overarching contribution of our investigation is to make substantive sense of this evidence. Conceptually, we use organizational justice and new racism theories, among others, to form hypotheses about that evidence. Methodologically, we use meta-analysis to help sift through it. In doing so, we attempt to provide authoritative

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estimates of how (a) structural features of AAPs, (b) perceiver characteristics, and (c) the interaction of structural and perceiver characteristics help determine how such programs are evaluated. In addition, we draw on interactional justice theory to predict and describe interesting effects of how AAPs are presented by organizations to those who might be affected by them.

Structural Features of Affirmative Action Programs

The most important structural feature of AAPs—and the one that has received the most research attention—is the amount of consideration that an AAP gives to applicants' demographic traits (e.g., gender and race–ethnicity, referred to hereinafter as *racio-ethnicity*). The AAPs used in research are of four general types (Kravitz, 1995). *Opportunity enhancement* AAPs offer some assistance to target group members prior to selection decisions, typically through focused recruitment or training, but they give no weight to demographic traits in employment decisions. Instead, they are designed to add more target group members to the pool of qualified candidates, thus increasing the alternatives available to selection decision makers. *Equal opportunity* (elimination of discrimination) AAPs simply forbid selection decision makers from assigning a negative weight to membership in an AAP target group. In *tiebreak* AAPs (also called "weak preferential treatment"), members of the target group are given preference over others if and only if their other qualifications are equivalent, thus assigning a small positive weight to target group membership. Finally, *strong preferential treatment* AAPs (including the politically charged term "quotas") give preference to members of the target group even when their qualifications are inferior to those of nontarget group members, thus potentially assigning a large weight to demographic traits (see Sander, 2004, for an example and similar analysis in education admissions). These four AAP categories vary along several dimensions, as summarized in Table 1. The sequence of these AAP structures progressively forces the hand of, and limits the discretion of, selection decision makers. Therefore, we refer to this progression as a continuum of AAP *prescriptiveness*. Prior research has referred to segments of this continuum as AAP strength (e.g., Slaughter, Sinar, & Bachiochi, 2002).

How might AAP prescriptiveness influence attitudes? One answer is that it may affect the observer's beliefs about implications of the AAP for his or her self-interest in employment; we broach the issue of self-interest more fully below. A second answer is that AAP prescriptiveness may influence perceptions of fairness. Norms of workplace deservingness in the United States emphasize the importance of merit or qualifications and the irrelevance of demographic variables (Folger & Cropanzano, 2001; Gilliland, 1993). As AAP prescriptiveness increases, so does the extent to which such merit-based justice norms are violated. When such norms are violated, perceivers express negative attitudes (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). These ideas lead directly to our first hypothesis.

Hypothesis 1: AAP attitudes are negatively affected by AAP prescriptiveness.

Table 1
Properties Along Which Types of Affirmative Action Programs (AAPs) Vary

	Opportunity oriented				
Dimension	Opportunity enhancement	Equal opportunity	Tiebreak	Strong preferential treatment	Differentiation provided
Human Resource function and employment decision	Sometimes undefined; more likely specifies recruitment or training	Typically undefined, but conceptually could apply to all decisions	Typically selection, but could apply to any decision (promotion, assignment to training, layoff)	Typically selection, but could apply to any decision (promotion, assignment to training, layoff)	Dimension does not distinguish all AAPs
Timing vis-à-vis target's relationship with the organization	From preapplicant through long-term employee	From applicant through long-term employee	From applicant through long-term employee	From applicant through long-term employee	Dimension does not distinguish all AAPs
Target-group affected	Potential applicants and employees	Applicants and employees	Employees	Employees	Does not distinguish between tiebreak and strong preferential treatment
Strength: Weight in decision process given to underrepresented group members	None	None	Positive, but small	Positive, with size unspecified	AAPs vary monotonically, but does not distinguish between opportunity enhancement and equal opportunity
Prescriptiveness: Effect on discretion of selection decision maker	Promotes classes of activities that enhance number of eventual choices, especially for underrepresented group members	Constrains decision in a trivial way, by forbidding negative weight to minority status (forbids illegal decisions)	Constrains decision somewhat, by requiring small positive weight for minority status	Constrains decision by requiring substantial positive weight for minority status	AAPs vary monotonically on dimension; all forms distinguished

Perceiver Characteristics

Another consistent research interest is individual or group differences in AAP evaluations (Kravitz et al., 1997). Relevant features of those who evaluate AAPs include demographic characteristics, personality dimensions, behavioral experiences, and enduring sets of beliefs or opinions. Perceiver characteristics for which there is enough evidence for a meta-analysis are racioethnicity, gender, self-interest, perceptions of discrimination, racism and sexism, and political orientation. Organizational members are likely to vary along all these dimensions, so their effects are relevant to the practitioner who needs to anticipate reactions to enacted AAPs.

Racioethnicity and Gender

Affirmative action often requires an explicit consideration of job candidates' racioethnicity and gender. Scholars interested in affirmative action attitudes have given parallel attention to how these individual attributes affect perceptions of AAPs. Several considerations imply racioethnic and gender differences in attitudinal support for affirmative action. Because underrepresented minorities and White women are targeted by affirmative action, it is in their self-interest to support it. At the same time, self-interest motivates opposition by White men. In addition, substantial racial differences and possible gender differences exist on other variables, such as political conservatism (Smith & Seltzer, 1992), political party identification (Jones, 2004), personal experience of discrimination, and belief that discrimination is an ongoing problem (Kravitz & Klineberg, 2000). These arguments motivate the following hypotheses.

Hypothesis 2a: AAP attitudes are more positive among African Americans and Hispanic Americans than among White Americans.

Hypothesis 2b: AAP attitudes are more positive among women than among men.

Personal and Collective Self-Interest

The line of reasoning above implies that AAP attitude differences across demographic groups rest on psychological variables. Self-interest is perhaps chief among these (Johns, 1999; Lehman & Crano, 2002). The role of self-interest in public policy attitudes has long been a subject of debate, where *self-interest* can be defined in terms of "its short to medium-term impact on the material well-being of the individual's own personal life (or that of his or her immediate family)" (Sears & Funk, 1991, p. 16). Because the essence of affirmative action implies a potential impact on employment success, the likely positive effect of self-interest on attitudes would be predicted on the basis of any variant of expected utility or expectancy value theory (e.g., Kravitz & Platania, 1993). This argument implies that individuals will tend to support AAPs that they believe are more likely to help them and oppose those that they believe are more likely to hurt them. It is important to note that overall self-interest does not preclude anticipation of some negative outcomes, such as stigmatization for beneficiaries, that apply almost exclusively to forms of strong preferential treatment (Evans, 2003; Heilman, Battle, Keller, & Lee, 1998). However, on balance, those negative outcomes may be overwhelmed by anticipated positive outcomes (Bell et al., 2000).

In addition, AAPs are designed to provide a collective solution to a collective problem—discrimination based on membership in specific demographic groups. As such, they stimulate thoughts about effects on entire demographic groups (Kravitz, 1995; Tougas & Beaton, 1992, 1993), cuing the salience of one's social identity (Brown, 2000; Tajfel & Turner, 1986) and prompting cognitions about collective self-interest (Bell et al., 2000). Paralleling the effect of personal self-interest, we therefore expect individuals to attitudinally support AAPs that they believe will help their demographic group and oppose AAPs that they believe will hurt it.

Hypothesis 3a: AAP attitudes are positively affected by anticipated favorability for a perceiver's personal self-interest.

Hypothesis 3b: AAP attitudes are positively affected by anticipated favorability for a perceiver's collective self-interest.

Personal Experience and Perceptions of Discrimination

Affirmative action was originally designed to compensate for historical discrimination and to counteract ongoing discrimination (Konrad & Linnehan, 1999; Rubio, 2001). Thus, individuals who believe that such discrimination no longer exists are unlikely to see positive instrumentality in AAPs and thus are unlikely to regard them positively (e.g., Bell, Harrison, & McLaughlin, 1997). Along the same lines, individuals who have personally experienced race-based or gender-based discrimination are more likely than those who have not had the same experience to believe that affirmative action is still needed. These considerations suggest that AAP attitudes should be predicted by both personal experiences of discrimination and beliefs regarding discrimination experienced by the AAP's target group. Both are referred to in the AAP literature as forms of (relative) "deprivation" (Crosby, 1984, p. 68).

Hypothesis 4a: AAP attitudes are positively affected by the extent of personal employment discrimination experienced by a perceiver.

Hypothesis 4b: AAP attitudes are positively affected by perceiver beliefs about the extent to which the target group experiences discrimination.

Racism and Sexism

Attitudes toward AAPs can stem from more than just the implicitly rational, calculative sets of predictors mentioned above. Racial prejudice, in particular, has long been a psychological and behavioral force in the United States (Myrdal, 1944; Waller, 1998). *Racism* is defined as a "prejudicial attitude or discriminatory behavior toward people of a given race" (Waller, 1998, p. 47). Because AAPs are designed to help minorities rejected by racially prejudiced individuals, racist individuals should oppose AAPs. The relation should hold even when the AAP target group is not specified because most people assume AAPs target African Americans (Kravitz et al., 2000).

Affirmative action targets women as well as racioethnic minorities, so we must also consider gender-focused prejudice. *Sexism* is defined in similar ways to racism but with gender-focused attitudes

or behaviors (Glick & Fiske, 2001, p. 109). Sexist individuals should oppose AAPs for reasons that parallel the race-focused arguments above. This relation should hold regardless of whether the AAP is explicitly said to target women because, as with assumptions about race, many people assume that AAPs do target women (Kravitz et al., 2000).

Hypothesis 5a: AAP attitudes are negatively associated with racism.

Hypothesis 5b: AAP attitudes are negatively associated with sexism.

Work on affirmative action has incorporated measures of both "old-fashioned" and new forms of racism. Old-fashioned racism (sometimes referred to as "Jim Crow racism") includes the assumption that African Americans are inherently inferior along with approval of segregation and other forms of discrimination (Bobo & Smith, 1998; Waller, 1998). Old-fashioned racism has become less socially acceptable, and its prevalence seems to have waned (Dovidio & Gaertner, 1986). Scholars argue it is has been supplanted by various new forms of racism, such as symbolic racism (Kinder, 1986), modern racism (McConahay, 1986), aversive racism (Gaertner & Dovidio, 1986), and laissez-faire racism (Bobo, Kluegel, & Smith, 1997). All of these latter theories assume that racist individuals experience anti-African American or anti-minority affect. These theories also assume that individuals reject old-fashioned racism and believe that they and their own beliefs and behaviors are not racist (Devine, 1989; Dovidio, 2001; Greenwald & Banaji, 1995). New racists may genuinely oppose racism and believe they are not prejudiced (Swim, Aikin, Hall, & Hunter, 1995). They are most likely to take a prejudicial action when it can be attributed to a nonprejudicial cause (Dovidio & Gaertner, 2000), as is the case with opposing more prescriptive forms of affirmative action that can be said to violate norms of justice (i.e., merit or equity). Both forms of racism should predict AAP attitudes, but a question we address in an exploratory way is whether attitudinal impact varies with the type of racism (old fashioned vs. new).

Political Ideology and Party Identification

For the past few decades, a fierce political debate has raged about the appropriateness of AAPs in employment. As a general rule, conservatives and the U.S. Republican Party have argued for the elimination of affirmative action, and liberals and the U.S. Democratic Party have argued for its continuance (Abramowitz, 1994). In part, this debate reflects different philosophies regarding the role of government. Liberals believe that the government should take an active role in helping the previously disadvantaged. Conservatives agree that the government should forbid racial discrimination but more generally prefer that the government not actively manage social relations or economic standing (Ashbee & Ashford, 1999; Kernell & Jacobson, 2000). Disagreement between the political parties is also influenced by their appeal to different constituents, with the Republican Party appealing especially to White Americans (particularly White men) and racioethnic minorities generally identifying with the Democratic Party (Hacker, 1992; Jones, 2004). Thus, the predictions regarding these perceiver attributes are straightforward.

Hypothesis 6a: AAP attitudes are negatively associated with political conservatism.

Hypothesis 6b: AAP attitudes are more negative among those individuals who identify with the Republican Party than among individuals who identify with the Democratic Party (in the United States).

Joint Effects of Structural Features and Perceiver Characteristics

Much of the research on affirmative action attitudes has focused on either the influence of structural variables or perceiver characteristics. As research areas mature, the focus should shift naturally to more complex mechanisms, from main effects to interactions (Hall & Rosenthal, 1991; Reichers & Schneider, 1990). In this spirit, we consider below some potential interactions between AAP structure and individual difference variables, which, because of the amount of data involved, meta-analysis is especially well suited to address.

By definition, attention given to demographic status increases with AAP prescriptiveness. The two least prescriptive AAPs—opportunity enhancement and equal opportunity—essentially require that demographic status be ignored when employment decisions are made. Insofar as this implies a change in the status quo, one might expect some effect of demographic status, with individuals who belong to groups that are more frequently victimized by discrimination being somewhat more supportive. However, because most people agree that discrimination is inappropriate, any demographic difference is likely to be small. More prescriptive AAPs have more powerful implications for respondents' self-interest and are more likely to be seen by some as unfair. For nontarget group members, self-interest and merit-based fairness principles work together to decrease support as AAP prescriptiveness increases. For target group members, in contrast, self-interest considerations should increase support, and need-based fairness principles would still be salient. The result should be a smaller effect of AAP prescriptiveness on the attitudes of target group members than on the attitudes of non-target-group-members. Hence, the divergence in attitudes along racial and gender lines should increase with AAP prescriptiveness.

Hypothesis 7a: The association of race with AAP attitudes increases with AAP prescriptiveness.

Hypothesis 7b: The association of gender with AAP attitudes increases with AAP prescriptiveness.

Organizational Justice Theory

Self-interest is implied in the above effects for race and gender, as less favorable outcomes are expected for Whites and men under more prescriptive AAPs. Outcome favorability is part of a robust interactive effect observed for evaluations of workplace procedures; it has a more powerful impact when the procedure is considered unjust than when the procedure is considered just (Brockner & Wiesenfeld, 1996; Folger & Cropanzano, 2001). As AAPs increase in prescriptiveness, they are more likely to be seen as violating critical justice principles (Bobocel, Son Hing, Davey, Stanley, & Zanna, 1998). This implies that AAP attitudes will be

more strongly affected by self-interest (outcome favorability) considerations when the AAP is more prescriptive (procedurally less just).

Hypothesis 8a: The association of personal self-interest with AAP attitudes increases with AAP prescriptiveness.

Hypothesis 8b: The association of collective self-interest with AAP attitudes increases with AAP prescriptiveness.

Affirmative action is designed to eliminate discrimination and, to some extent, to compensate for documented past discrimination. Furthering the argument from Hypotheses 4a and 4b, it therefore follows that AAP attitudes are likely to vary with a perceiver's beliefs about past discrimination and the corresponding need for compensation (Levi & Fried, 2002; Nacoste, 1993; Nacoste & Hummels, 1994). More complex effects are implied by Nacoste's (1994) use of procedural justice theory and interdependence theory to explain reactions to AAPs. He assumed that individuals (a) compare the AAP procedure with potential alternative procedures and (b) consider the implications of actual and potential AAP procedures, along with current levels of discrimination, for relative group opportunities. It follows that individuals should support AAP procedures that exactly compensate for past discrimination but should oppose AAP procedures that either undercompensate for discrimination (thus leaving the target group at a disadvantage) or overcompensate (thus giving the target group an advantage). Individuals who believe that discrimination continues (especially if they have experienced it themselves) may oppose less prescriptive AAPs because they do not go far enough. Others who believe that discrimination is no longer a problem are likely to express support for such AAPs because they are fair and nonthreatening. This implies a negative effect of personal or perceived discrimination for the less prescriptive AAPs. The opposite logic and pattern of support applies for more prescriptive AAPs. This disordinal interaction is proposed below.

Hypothesis 9a: The association of personal experiences of discrimination with AAP attitudes changes from negative to positive over the range of AAP prescriptiveness.

Hypothesis 9b: The association of the belief that the target group experiences discrimination with AAP attitudes changes from negative to positive over the range of AAP prescriptiveness.

Racism Theory

We hypothesized previously that opposition to AAPs should increase with the respondent's prejudice (racism or sexism) toward the AAP target groups. Old-fashioned racists should be especially hostile toward more prescriptive AAPs because those AAPs are especially helpful for the targets of their prejudice. Modern racists are privately prejudiced but avoid actions that leave them open to charges of racism (Dovidio, Mann, & Gaertner, 1989). When discrimination can reasonably be attributed to a nonprejudicial cause, racists will act in a manner consistent with their prejudice. As AAP prescriptiveness increases, so does the ease of attributing personal opposition to the structural details (demographic rather than merit emphasis) of the plan, and thus there should be a larger effect of racism on AAP attitudes. A parallel logic applies to the impact of sexism (Swim et al., 1995). This reasoning leads to the two additional hypotheses below. Consistent with Hypotheses 5a and 5b, we do not distinguish between traditional and new forms of racism and sexism.

Hypothesis 10a: The association of racism with attitudes toward AAPs increases with AAP prescriptiveness.

Hypothesis 10b: The association of sexism with attitudes toward AAPs increases with AAP prescriptiveness.

Political Positions and Public Rhetoric

The public affirmative action debate between more liberal (Democrat in the United States) and more conservative (Republican) individuals is frequently definitional. Republican rhetoric and platform positions often support the prohibition of discrimination but argue that affirmative action should be opposed because it invariably entails unjust preferential treatment (a "quota;" Canady, 1996). Democrats and those with more liberal political ideologies, in contrast, often publicly state that they support affirmative action because it is simply a set of programs for helping eliminate discrimination and guaranteeing equal opportunity, which is just. They, too, would typically oppose strongly preferential treatment (Clinton, 1996). Thus, people at both ends of the political spectrum state that they would support the elimination of discrimination and oppose strong preferential treatment. This implies that differences are most likely to be seen for AAPs that involve moderate weighting of demographic features.

Hypothesis 11a: The association of political ideology with attitudes toward AAPs is moderated nonmonotonically by AAP prescriptiveness so that the strongest effects are seen for AAPs of moderate prescriptiveness.

Hypothesis 11b: The association of party affiliation with attitudes toward AAPs is moderated nonmonotonically by AAP prescriptiveness so that the strongest effects are seen for AAPs of moderate prescriptiveness.

Presentation of AAPs

The preceding discussion implicitly assumes respondents evaluate AAPs that have been explicitly defined. It also assumes that AAPs can be unambiguously classified in terms of the weighting they assign to the demographic features of job applicants. The invalidity of these two assumptions became evident as we accumulated the studies included in this meta-analysis.

In some original studies, the described AAP is specific. Some or all of its elements are explicitly defined; how the AAP weights demographic features is stated directly, either in measurement or manipulation. For example, a dependent measure might ask respondents in one study whether they support "elimination of discrimination." In another study, the manipulation might deal with how a certain "proportion of women" is to be hired in the selection process.

In other studies, the AAP is generic. The program is not defined in any way, and only the AAP label is used. Respondents are

simply asked to report their attitudes toward affirmative action, and their implicit, tacit definitions prevail. In these studies, attitudes are a function of the respondent's extant schema of affirmative action, which is dominated by perceptions that fit the respondent's current beliefs (Arriola & Cole, 2001; Golden, Hinkle, & Crosby, 2001). If the perceiver characteristics hypothesized above are also associated with affirmative action schemas, then this should increase the strength of association between such characteristics and AAP attitudes under a generic AAP. These ideas lead to our next hypothesis.

> *Hypothesis 12:* The effects of perceiver characteristics on attitudes toward AAPs are stronger when AAPs are presented generically (implicitly) rather than specifically (explicitly).

The concept of fairness or justice has played an important role in much of the preceding discussion. There is evidence for a strong connection between perceptions of AAP fairness and attitudes (Kravitz et al., 1997). Thus, it might be possible to increase support for AAPs by decreasing perceptions of unfairness via justifications. Justifications tend to have a positive impact on evaluations of a procedure (e.g., Greenberg, 1994) because they convey a concern for the individual's well-being and they help address whether the decision maker could and should have acted differently (Bies & Moag, 1986; Cropanzano & Greenberg, 1997; Shaw, Wild, & Colquitt, 2003). This reasoning leads to our final hypothesis.

> *Hypothesis 13:* AAP attitudes are more positive when a perceiver is given a justification for the use of AAPs than when no justification is given.

Research on AAP attitudes has used various justifications. For example, Kuklinski et al. (1997) referred to previous discrimination and numerical underrepresentation. Matheson, Warren, Foster, and Painter (2000) justified the use of an AAP by stating that it would increase diversity. Justice theory provides less guidance in pinpointing which of these justifications has the greatest potential for changing attitudes. Therefore, we offer no formal hypotheses but we do assess differences in their effects.

Method

Compilation of Original Studies

To test our hypotheses, we gathered effect sizes from published articles and unpublished papers that investigated relationships of individual AAP evaluations with the structural features and/or perceiver personal characteristics defined above. We limited our search to articles that investigated AAPs in employment rather than in school admissions because it would be difficult to integrate the two literatures theoretically. This is especially true given our focus on AAP structure; some structures used in research on affirmative action in college admissions would not fit into our classification system. At a more systemic level, affirmative action in college admissions can be seen as an opportunity enhancement policy, even when it involves preferences in admission decisions. Our initial source was the narrative review by Kravitz et al. (1997). We then performed data-based searches through ABI-Inform, PsycINFO, Psychological Abstracts, and ERIC. Keywords and phrases included Boolean combinations of *affirmative action*, *preferential treatment*, *preferential selection*, *equal opportunity*, *employment discrimination*, and *attitude*, *evaluation*, *support*, *resistance*, *judgment*, *reaction*, and *fairness*. We sent queries to professional newsgroups and discussion lists, including several listserves of the Academy of Management. Finally, we contacted authors of prior articles to identify manuscripts under review or otherwise unpublished (through the end of 2003). These procedures netted 110 investigations with enough data for effect size estimation, collectively involving over 29,000 people in 126 independent samples.

Measurement of Dependent Construct

Although the constitutive definition of attitude has a long and controversial history (cf. Ajzen & Fishbein, 1980), we followed Kravitz et al. (1997) by defining it in this domain as an evaluative judgment about AAPs. As such, AAP attitudes can be operationalized on a continuum that ranges from extremely negative (staunch resistance) to extremely positive (staunch support). Most authors measured AAP attitude with short, three- to six- item self-report scales with Likert-type or semantic differential response formats (e.g., Bell et al., 1997; Kravitz & Platania, 1993). Estimated reliabilities ranged from .70 to .95, with most estimates in the higher end of that range. A nontrivial subset of studies used single-item measures, sometimes involving simple yes–no responses. Reversing the Spearman–Brown formula and using average interitem correlations taken from studies with multi-item measures, we estimated the reliability of the average single-item scale to be .72.

To include as many effect sizes as possible, we also incorporated studies that used a measure of perceived fairness as their dependent variable (e.g., Gilliland & Haptonstahl, 1995). Although such measures fit our inclusion criteria because they are evaluative responses, they can be conceptually distinguished from attitudes per se (Konovsky & Cropanzano, 1991). When possible, we thus grouped studies by their use of attitude or fairness as the dependent variable.

Independent Variables

We let each sample (from an original study) contribute a single effect size to each meta-analysis of each of the relationships proposed above. Matching studies to hypotheses was usually straightforward, as the variable label in the original study typically corresponded to one of the terms in some way. The remaining variables were almost always synonymous with the variable labels we have adopted. For example, "relative deprivation" and "relative deprivation on behalf of others" (e.g., Tougas & Beaton, 1992) referred to what we call "personal experience with discrimination" and "beliefs about discrimination against the target group." In addition, not all studies used the term "affirmative action." Authors sometimes used phrases such as "preferential selection" or "preferential treatment" to describe the procedure being examined.

All of the perceiver characteristics were measured via self-reports. We considered measures of race and gender to be well-rehearsed one-item scales (Schmidt & Hunter, 1996), and we assigned them a reliability of unity. The two forms of self-interest, as well as racism and sexism, were measured with multi-item scales that had estimated reliabilities ranging from .70 to .85. Other studies measured experienced or perceived discrimination among members of the AAP's target group; estimated reliabilities (from .65 to .90) of those measures were used to correct individual effect sizes in the meta-analysis. Political ideology and party identification were often measured with single-item scales. Because so few studies used multi-item measures or provided reliability estimates for these two independent variables, we did not assign a derived reliability estimate to the one-item measures, as we did for AAP attitudes. Justification for an AAP was a manipulated variable, and in such cases disattenuation is inappropriate.

Moderator Variable: Coding Scheme

Our coding of AAP structure involved several categories. Some were nested within others. We describe each one below, working backward

through our hypotheses. When the AAP was manipulated, the description given to the participants determined the code. In many studies, the AAP was not described but a structure could be inferred from the items used to measure attitudes. In these cases, the codes were based on the phrasing of those items.

The first coding involved classifying the AAP under investigation as either generic (implicit) or specific (explicit; see Hypothesis 12). The former code was ascribed when the AAP in question used the term "affirmative action" in the materials presented to the respondents but did not explicitly define it for them and no specific structure could be induced from the attitude measure. In such situations, respondents evaluate affirmative action as they tacitly construe it. The latter code was used when the details of the AAP were explicitly defined for perceivers or a specific structure could be induced from the attitude measure.

We were able to categorize the structural features of specific AAPs along the continuum of prescriptiveness with four different codes. As mentioned above, the most prescriptive AAP was regarded as involving strong preferential treatment if demographic (target group) status received a consistent positive weight in a selection, promotion, or other critical employment decision. For example, if the AAP was described such that a minority individual would receive a job even if his or her qualifications were inferior to the qualifications of a competing majority individual, we treated it as strong preferential treatment. Some key phrases in this category included "preferential treatment," "different standards," "score adjustment," "reverse discrimination," "quotas," "selection of a target number of minorities," and "assurance of an equal number of positions." It is important to note that the last three phrases are included because setting aside a given number of positions implies that they will be filled regardless of qualifications or merit.

In tiebreak structures, demographic status received a small contingent weight in a selection, promotion, or other critical employment decision. The contingency was limited to situations in which the competing individuals were said to have equivalent qualifications. Key phrases included implication of selection on the basis of demographic features plus the statement that it occurred only when qualifications were "equal," "equivalent," "comparable," or the like.

The third category, opportunity oriented, combined two distinguishable types of AAP (opportunity enhancement and equal opportunity), each of which was too infrequently used to include as a separate category and each of which involves no or low levels of prescriptiveness. Opportunity enhancement programs are designed to improve minorities' chances at job openings (e.g., through focused recruitment) but do not imply that any weight is given to target group membership in final employment decisions. Equal opportunity procedures are designed to guarantee that all individuals receive equal treatment regardless of demographic status (proscription against assigning a negative weight to target group membership). Some key phrases included "extra effort in recruitment," "equal opportunity," and "elimination of barriers." The fourth category, mixed, was assigned if an AAP simultaneously incorporated at least two of the three categories described above.

To gauge the possibility of method effects, we also coded the general research design. If the original study involved students generally responding to hypothetical AAPs in a contrived setting, we coded the study as laboratory. If the original study involved adults outside of contrived research settings, often responding to a sample survey, we coded the study as field. Overall, the numbers of laboratory (55%) and field (45%) investigations were roughly equal.

Meta-Analytic Techniques

Effect sizes were cumulated following methods described by Hunter and Schmidt (1990). For each study, we converted the reported statistics into product–moment correlation coefficients. We constructed statistical confidence intervals around the weighted average correlations. To assess the likelihood of moderator effects, we generated a credibility interval for each meta-analytic estimate (Whitener, 1990). The latter intervals help gauge the likelihood that there is more than one population of effects under examination.

Corrections for attenuation due to unreliability were performed on a within-study basis. Estimates of variance due to artifacts and variance in ρ were also calculated. Following our hypotheses, moderator breakdowns for each relationship included the coded structure of the AAP described above. In some cases, we also included subgroupings of effect sizes by the form of the dependent variable (AAP attitude vs. fairness) or the independent variable (old-fashioned vs. new forms of racism; see the text following Hypotheses 5a and 5b).

(Non)Independence of Samples and Effect Sizes

One assumption of meta-analytic methods is that the obtained effect sizes used to estimate a population parameter are from independent samples. When two or more effect sizes are obtained from the same sample, and both effects are added to the meta-analytic cumulation, it inappropriately inflates the total sample size and makes sampling error appear to be too small. If, in a single sample, authors reported several overlapping relationships of one independent variable with AAP attitude—for instance, correlations between gender (X) and three different AAP attitude measures (Y_1, Y_2, and Y_2)—we averaged those relationships after transforming them to Fisher's z'. We entered only the back-transformed average correlation (mean of r_{XY1}, r_{XY2}, and r_{XY3}) into our meta-analytic calculations.

Results

Overview

A summary of the hypotheses and the patterns of evidence supporting them are presented in Table 2. Next, separate tables display the meta-analytic results needed to test hypothesized main effects and interactions for each variable. Hypothesis 12 (generic vs. specific AAP) spans all of the previous sets of results. Each table includes the number of samples (k), total sample size (N), sample-size-weighted mean correlation, 95% confidence interval for the mean correlation, estimated ρ (correlations individually corrected for unreliability), observed variance in the set of rs, and our estimate of true variance in ρ across studies. The latter number was used to create an 80% credibility interval around estimated ρ, which is also reported in the tables.

One caveat from the tables is that the number of samples split by moderator does not add up to the total number of independent samples. The reason behind this was discussed in more detail in the Method section. It occurs because there were often two or more correlations reported for different AAP structures within a single sample. For example, each sample was only used once in calculating the overall racism effect, but the same sample may have been used in different meta-analyses looking at the effect of racism for different levels of AAP structure. Because of this nonindependence, customary significance tests (such as differences in Fisher's z'-transformed average correlations) are not appropriate. Instead, we take the conservative approach of noting (lack of) overlap in confidence intervals around meta-analytic correlations for different levels of the moderator—typically AAP structure and presentation features. The methodological moderator, laboratory versus field research strategy, yielded insignificant results in 10 of the 11 comparisons; it is not a major source of variation in effect sizes.

Table 2
Summary of Hypotheses and Levels of Support

Variable and hypothesis	Key study variable and proposed effect on AAP attitude	Support
Structural feature		
Hypothesis 1	Prescriptiveness of AAP (negative)	Yes[b]
Perceiver characteristics		
Hypothesis 2a	Race (positive; racial minority > racial majority)	Yes[b]
Hypothesis 2b	Gender (positive; female > male)	Yes[a]
Hypothesis 3a	Personal self-interest (positive)	Yes[c]
Hypothesis 3b	Collective self-interest (positive)	Yes[b]
Hypothesis 4a	Personal discrimination (positive)	Yes[a]
Hypothesis 4b	Belief target group experiences discrimination (positive)	Yes[b]
Hypothesis 5a	Racism (negative)	Yes[c]
Hypothesis 5b	Sexism (negative)	Yes[c]
Hypothesis 6a	Political ideology (negative; conservative < liberal)	Yes[b]
Hypothesis 6b	Party affiliation (negative; Republican < Democratic)	Yes[b]
Perceiver Characteristics × Structural Feature		
Hypothesis 7a	Race effect moderated by AAP prescriptiveness (positive)	Yes
Hypothesis 7b	Gender effect moderated by AAP prescriptiveness (positive)	Yes
Hypothesis 8a	Personal self-interest effect moderated by AAP prescriptiveness (positive)	Yes
Hypothesis 8b	Collective self-interest effect moderated by AAP prescriptiveness (positive)	No
Hypothesis 9a	Personal discrimination effect moderated by AAP prescriptiveness (positive)	No
Hypothesis 9b	Belief that target group experiences discrimination effect moderated by AAP prescriptiveness (positive)	Mixed
Hypothesis 10a	Racism effect moderated by AAP prescriptiveness (positive)	Yes
Hypothesis 10b	Sexism effect moderated by AAP prescriptiveness (positive)	No
Hypothesis 11a	Political ideology effect moderated by AAP prescriptiveness (nonmonotonic)	
Hypothesis 11b	Party affiliation effect moderated by AAP prescriptiveness (nonmonotonic)	
AAP presentation		
Hypothesis 12	Implicitness of AAP presentation moderates perceiver characteristic effects (positive)	Yes
Hypothesis 13	Provision of justification in AAP presentation (positive)	Yes[a]

Note. AAP = affirmative action program. Levels of support are defined following Cohen (1988). Blank cells indicate that the study variables have not been tested.
[a] Weak ($0 < |\rho| \leq .2$). [b] Moderate ($.2 < |\rho| \leq .4$). [c] Strong ($|\rho| > .4$).

An additional precaution to note is that as sets of estimates are split by the AAP structure moderator, the within-condition sample N and k can often be very small, in some cases involving only a single study. With small k, confounds of moderators with unmeasured features of the meta-analyzed studies are more likely (second-order sampling error). Therefore, conclusions regarding those conditions are more tentative.

Fairness and AAP Attitude

Several of our hypotheses about AAP structure are motivated by the organizational justice literature, where the primary dependent variable has been (perceived) fairness of a procedure or program in question. In contrast, the dependent variable in most studies of reactions to AAPs has been attitude. As a check on the substitutability of fairness and attitude, we meta-analyzed the relationship between (perceived) fairness and AAP attitude. With $k = 17$ independent effect sizes and a total N of 2,907, the mean correlation between the two was .679, and the meta-analytic ρ (adjusted for unreliability) was .805. Although AAP attitude and perceived fairness are not identical, they are powerfully bound up in one another (Bell, 1996).

Because we have incorporated all studies that used either fairness or AAP attitude in our meta-analytic estimates, we also examined the type of dependent measure as a methodological moderator. The only relationships for which there were enough fairness-based correlations to perform such an analysis dealt with effects of race and gender. As shown in Tables 4 and 5, relationships were larger when the dependent variable was AAP attitude (estimated ρ for African American vs. White = .311; for female vs. male = .173) than when it was fairness (estimated ρ for African American vs. White = .238; for female vs. male = .073). Type of dependent measure therefore contributes to the observed variance in effect sizes.

Hypothesis 1: Prescriptiveness of AAP Structure

We drew from the self-interest and justice literatures to predict in Hypothesis 1 that greater demographic weighting (greater prescriptiveness) in an AAP structure would lead to more negative attitudinal responses. The results in Table 3 clearly bear out that prediction. For each pairwise comparison of a less prescriptive with a more prescriptive form of AAP, there was a substantial negative correlation. Comparing attitudes under opportunity-oriented programs with attitudes under strong preferential treatment generated an effect size ($\rho = -.335$) similar to that found when comparing tiebreak and strong preferential treatment ($\rho = -.392$). Although this similarity might imply that the former two conditions cue the same attitudinal reactions, it was also the case that tiebreak programs were evaluated more negatively than opportunity-oriented AAPs ($\rho = -.219$).

Table 3
Meta-Analytic Relationship of Affirmative Action Program (AAP) Prescriptiveness and AAP Attitude (Hypothesis 1)

Sample	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	25	6,974	−.291	.021	(−.348, −.234)	−.319	.022	(−.507, −.131)
Opportunity oriented (1) vs. tiebreak (0)	9	3,482	−.200	.005	(−.247, −.154)	−.219	.003	(−.289, −.149)
Laboratory	4	362	−.116	.004	(−.219, −.014)	−.126	.000	(−.126, −.126)
Field	5	3,120	−.210	.004	(−.267, −.154)	−.232	.003	(−.303, −.160)
Opportunity oriented (1) vs. strong preferential treatment (0)	11	2,692	−.299	.049	(−.430, −.168)	−.335	.057	(−.642, −.029)
Laboratory	7	812	−.275	.046	(−.434, −.115)	−.305	.048	(−.584, −.026)
Field	4	1,880	−.309	.050	(−.529, −.090)	−.352	.063	(−.673, −.032)
Tiebreak (1) vs. strong preferential treatment (0)	11	2,232	−.354	.008	(−.405, −.302)	−.392	.004	(−.474, −.310)
Laboratory	10	1,004	−.377	.020	(−.465, −.288)	−.413	.015	(−.571, −.255)
Field	3	1,356	−.356	.001	(−.403, −.310)	−.405	.000	(−.405, −.405)

Hypotheses 2a and 7a: Perceiver Race and AAP Structure

As expected from past narrative reviews (Kravitz et al., 1997), Table 4 reveals consistent relationships between race and attitudes toward AAPs and thus support for Hypothesis 2a. The corrected meta-analytic correlation between AAP attitude and a dichotomous variable indicating African American versus White racial background was .304. For the comparison of Hispanic Americans versus White Americans, the estimated ρ was .258. Each of these correlations conservatively translates into an attitudinal rift of more than 0.50 standard deviation between demographic minority and majority groups. These are moderate effect sizes for the behavioral sciences (Cohen, 1988), and they rise to strong levels ($0.75 \geq d \geq 1.00$ standard deviation) when they are adjusted for unequal proportions of African Americans, Hispanic Americans, and White Americans in the U.S. population (from which all the race-based effect sizes were taken). To further clarify the population-level differences in racial or ethnic groups, we also note in Table 4 that African Americans had more positive attitudes toward affirmative action programs than did Hispanic Americans (estimated ρ = .156).

Tests for heterogeneity of effect sizes were large and significant: $\chi^2(33, N = 19{,}579) = 797.52$, $p < .01$, for the variation in African American versus White American differences in AAP attitude, and $\chi^2(11, N = 4{,}203) = 39.24$, $p < .01$, for the variation in Hispanic American versus White American differences. Hence, moderators are likely. The large number of African American versus White American comparisons allows the most stable estimates of the moderating effects of AAP prescriptiveness on the respondent race–AAP attitude correlation. Consistent with Hypothesis 7a, the effect of race under strong preferential treatment (estimated ρ = .411) was more potent than under tiebreak (estimated ρ = .145) and opportunity-oriented (estimated ρ = .110) AAPs. The monotone order of the correlations maps to the hypothesis, although we note that confidence intervals for the latter two conditions overlap.

Hypotheses 2b and 7b: Perceiver Gender and AAP Structure

The summary relationship between perceiver gender and AAP attitude was .153, as shown in Table 5. This is equivalent to a difference of ≈ 0.30 standard deviation between women and men. As predicted by Hypothesis 2b, women had more positive evaluations. Less than 29% of the variation in effect sizes could be accounted for by artifacts, $\chi^2(62, N = 18{,}985) = 219.64$, $p < .01$, implying the operation of moderators. The pattern of correlations across levels of AAP structure in Table 5 generally fits Hypothesis 7b about prescriptiveness as a moderator. Under AAPs with the strongest weighting of target group membership (strong preferential treatment), the respondent gender–AAP attitude correlation was .203. Under AAPs with low or no weighting of demographic features, the correlation dropped to .107 (tiebreak) and .123 (opportunity oriented). These latter two correlations have mean effects with overlapping confidence intervals.

Hypotheses 3a, 3b, 8a, and 8b: Forms of Perceiver Self-Interest and AAP Structure

As shown in Tables 6 and 7, there were positive relationships between AAP attitudes and personal self-interest (ρ = .421) as well as collective self-interest (ρ = .377). Supporting Hypotheses 3a and 3b, neither of the confidence intervals for these meta-analytic effects contains zero. The credibility intervals are quite wide, and both sets of effect sizes were significantly heterogeneous: $\chi^2(18, N = 4{,}434) = 213.21$ and $\chi^2(13, N = 4{,}648) = 86.22$, both ps $< .01$. AAP prescriptiveness appears to be at least one source of that heterogeneity but not in a way that unequivocally supports Hypothesis 8a or Hypothesis 8b. Because the number of studies (*k*) for tiebreak is much smaller here and for the remaining meta-analytic breakdowns, we pooled it (as a form of mild preferential treatment) with strong preferential treatment in the comparisons below. For personal self-interest, the correlation under either tiebreak or strongly preferential AAPs was .433, which is higher (as predicted) than the correlation for opportunity-oriented AAPs (ρ = .133).

For collective self-interest, the pattern is different. When the only study involving a tiebreak AAP was combined with strong preferential treatment, ρ was estimated as .173, which is smaller but not statistically smaller than the estimated ρ of .292 under opportunity-oriented AAPs. Although the former value is sensitive to the single large tiebreak study, it should also be noted that the correlations under strong preferential treatment and opportunity-

Table 4
Meta-Analytic Relationship of Race and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness and Type of Dependent Variable (Hypotheses 2a and 7a)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
African American (1) vs. White (0)								
All independent samples	34	19,579	.286	.036	(.222, .349)	.304	.039	(.052, .557)
Presentation and prescriptiveness of AAP								
Specific (explicit)	27	17,472	.264	.034	(.195, .334)	.280	.037	(.036, .526)
Strong preferential treatment	13	7,495	.386	.027	(.297, .476)	.411	.029	(.192, .630)
Tiebreak	6	1,825	.137	.004	(.092, .182)	.145	.001	(.114, .177)
Opportunity oriented	5	6,240	.104	.004	(.049, .158)	.110	.004	(.034, .187)
Mixed	3	1,912	.431	.000	(.394, .468)	.458	.000	(.458, .458)
Generic (tacit)	7	2,107	.464	.018	(.365, .562)	.499	.018	(.327, .671)
Dependent variable								
Attitude toward AAP	24	18,338	.290	.036	(.213, .366)	.311	.041	(.053, .569)
Fairness	10	1,241	.225	.025	(.128, .323)	.238	.020	(.059, .417)
Sample								
Laboratory	13	2,501	.364	.020	(.287, .441)	.392	.019	(.217, .567)
Field	21	17,078	.274	.037	(.192, .357)	.290	.040	(.033, .548)
Hispanic American (1) vs. White (0)								
All independent samples	12	4,203	.244	.008	(.192, .296)	.258	.007	(.155, .362)
Presentation and prescriptiveness of AAP								
Specific (explicit)	7	3,218	.253	.005	(.202, .304)	.265	.003	(.194, .336)
Strong preferential treatment	1	43	.270		(−.010, .550)	.293		
Tiebreak	3	901	.199	.001	(.136, .262)	.208	.000	(.208, .208)
Opportunity oriented	1	1,207	.210		(.156, .264)	.214		
Mixed	2	1,067	.346	.000	(.293, .399)	.363	.000	(.363, .363)
Generic (tacit)	5	1,262	.263	.010	(.176, .349)	.281	.007	(.173, .390)
Sample								
Laboratory	5	633	.165	.001	(.089, .241)	.176	.000	(.176, .176)
Field	8	4,221	.255	.007	(.196, .314)	.269	.006	(.169, .370)
African American (1) vs. Hispanic American (0)								
All independent samples	12	3,304	.146	.010	(.089, .203)	.156	.008	(.044, .268)
Presentation and prescriptiveness of AAP								
Specific (explicit)	6	2,008	.085	.005	(.042, .129)	.091	.002	(.037, .145)
Strong preferential treatment	1	23	.070		(−.346, .486)	.076		
Tiebreak	2	689	.005	.001	(−.069, .080)	.006	.000	(.006, .006)
Opportunity oriented	1	110	.160		(−.023, .343)	.163		
Mixed	2	1,186	.125	.001	(.069, .181)	.136	.000	(.136, .136)
Generic (tacit)	6	1,296	.240	.005	(.189, .291)	.257	.000	(.230, .284)
Sample								
Laboratory	5	611	.095	.002	(.016, .174)	.102	.000	(.102, .102)
Field	7	2,693	.158	.011	(.078, .237)	.167	.010	(.039, .296)

oriented AAPs were similar in magnitude. Thus, the meta-analytic evidence supported Hypothesis 8a but not Hypothesis 8b.

Hypotheses 4a and 9a: Personal Experience of Discrimination and AAP Structure

Perhaps surprisingly, the summary relationship between personal experiences of discrimination and AAP attitude was only .190, as shown in Table 8. The direction is consistent with Hypothesis 4a and the 95% confidence interval does not include zero, but the effect is weak. A test of heterogeneity, $\chi^2(23, N = 6{,}151) = 73.05$, $p < .01$, suggests the operation of moderators. After breaking down the correlations by AAP prescriptiveness, we observed no differences across conditions, and thus Hypothesis 9a was not supported. Under opportunity-oriented structures, the correlation of personal experience and AAP attitude was not negative. However, it was not positive either—the confidence interval surrounding the unadjusted average effect from these studies contained zero. It should be noted that only one study investigated the impact of personal experience on AAP attitudes under strong preferential treatment ($n = 125$).

Hypotheses 4b and 9b: Perceptions of Target Group Discrimination and AAP Structure

As can be seen in Table 9, the summary relationship between perceptions of target group discrimination and AAP attitude was .313, supporting Hypothesis 4b. This relationship was also likely

Table 5
Meta-Analytic Relationship of Gender and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness and Type of Dependent Variable (Hypotheses 2b and 7b)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	63	18,985	.138	.012	(.112, .165)	.153	.010	(.025, .282)
Presentation and prescriptiveness of AAP								
Specific (explicit)	52	17,510	.134	.015	(.101, .167)	.148	.014	(−.005, .301)
Strong preferential treatment	16	5,003	.184	.018	(.118, .250)	.203	.018	(.031, .375)
Tiebreak	7	2,046	.099	.016	(.005, .192)	.107	.015	(−.048, .261)
Opportunity oriented	8	3,855	.110	.004	(.079, .142)	.123	.002	(.067, .180)
Mixed	21	6,606	.121	.016	(.068, .175)	.134	.015	(−.023, .291)
Generic (tacit)	18	3,379	.152	.007	(.119, .185)	.166	.002	(.108, .223)
Dependent variable								
Attitude toward AAP	51	15,366	.155	.012	(.124, .186)	.173	.011	(.036, .310)
Fairness	12	3,619	.067	.001	(.035, .100)	.073	.000	(.073, .073)
Sample								
Laboratory	35	6,947	.171	.011	(.136, .205)	.185	.007	(.077, .292)
Field	38	14,284	.120	.014	(.082, .157)	.133	.014	(−.018, .284)

Note. Female (1) versus male (0).

to be affected by systematic moderators, $\chi^2(32, N = 9{,}519) = 318.57$, $p < .01$. The pattern of correlations shown in Table 9 is consistent with our predictions that this effect would be moderated by AAP prescriptiveness. Under AAPs involving tiebreak or strong weighting of demographics, the meta-analytic correlation was an estimated ρ of .380. Under opportunity-oriented AAPs (with no weighting of demographic features in selection decisions), the correlation dropped to an estimated ρ of .189. Contradicting part of Hypothesis 9b, the latter correlation was positive rather than negative. Beliefs about target group discrimination were associated with more positive AAP attitudes, even if the AAP only minimally redressed that discrimination.

Hypotheses 5a and 10a: Racism and AAP Structure

Table 10 shows the corrected effect size for racism on AAP attitudes accumulated from $k = 28$ samples (total $N = 17{,}825$) as –.400. This provides strong support for Hypothesis 5a. Still, the racism correlations differed substantially from study to study, $\chi^2(27, N = 17{,}825) = 126.73$, $p < .01$. Unfortunately, we obtained only one effect size for this relationship that could be identified as coming from a tiebreak AAP. Grouping it with the stronger form of preferential treatment yielded an estimated ρ of –.481. This is substantially greater (in absolute magnitude) than the correlation under opportunity-oriented AAPs (estimated ρ = –.275). Hypothesis 10a was supported.

We also examined one of the tenets of new racism theories. They might be taken to imply that asking questions about blatantly or unambiguously racist beliefs, sometimes termed old-fashioned racism (Sears, Van Laar, Carrillo, & Kosterman, 1997), would yield responses with weaker relationships to AAP-related reactions than would questions molded in terms of symbolic, modern, or contemporary racism that provide plausible and nonprejudicial explanations for beliefs that might otherwise be considered racist (McConahay, 1986). These ideas were borne out by a meta-analytic correlation of –.283 for effect sizes involving instruments that measured old-fashioned racism and –.535 for those involving modern racism.

Table 6
Meta-Analytic Relationship of Personal Self-Interest and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 3a and 8a)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	19	4,434	.359	.047	(.261, .457)	.421	.059	(.109, .732)
Presentation and prescriptiveness of AAP								
Specific (explicit)	21	5,171	.287	.043	(.198, .367)	.330	.052	(.038, .621)
Strong preferential treatment	7	1,002	.305	.022	(.196, .415)	.337	.019	(.159, .515)
Tiebreak	2	838	.487	.012	(.336, .638)	.547	.013	(.084, .084)
Opportunity oriented	6	1,332	.117	.017	(.015, .220)	.133	.016	(−.026, .293)
Mixed	6	1,758	.306	.017	(.202, .409)	.380	.019	(.044, .707)
Generic (tacit)	6	865	.542	.020	(.429, .654)	.635	.022	(.447, .824)
Sample								
Laboratory	13	1,487	.412	.033	(.313, .511)	.475	.035	(.235, .716)
Field	14	4,549	.295	.049	(.179, .411)	.340	.061	(.023, .656)

Table 7
Meta-Analytic Relationship of Collective Self-Interest and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 3b and 8b)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	14	4,648	.306	.024	(.226, .387)	.377	.030	(.156, .598)
Presentation and prescriptiveness of AAP								
Specific (explicit)	16	5,281	.265	.026	(.187, .344)	.322	.033	(.089, .555)
Strong preferential treatment	3	405	.235	.042	(.004, .466)	.273	.047	(−.004, .550)
Tiebreak	1	469	.070		(−.020, .160)	.084		
Opportunity oriented	6	1,069	.246	.027	(.115, .378)	.292	.031	(.068, .516)
Mixed	6	3,338	.302	.020	(.189, .415)	.386	.028	(.171, .602)
Generic (tacit)	3	416	.441	.058	(.169, .713)	.514	.072	(.171, .856)
Sample								
Laboratory	6	667	.397	.046	(.226, .568)	.473	.055	(.172, .773)
Field	13	5,030	.262	.026	(.174, .350)	.319	.034	(.083, .554)

Hypotheses 5b and 10b: Sexism and AAP Structure

As with correlations involving racism, the correlations involving sexism were strong and negative, yielding a meta-analytic ρ of –.518, as shown in Table 11. This value clearly supports Hypothesis 5b. Unlike the racism correlations, however, the effect sizes for sexism were based on smaller samples in individual studies and a relatively (to the other main effects) small total *N* of 1,448. Therefore, although statistical tests indicated significant heterogeneity in effects, $\chi^2(11, N = 1{,}448) = 37.70$, $p < .01$, moderator comparisons had substantially lower power for sexism correlations than correlations involving other individual differences (Aguinis & Pierce, 1998).

Perhaps because of this reduced power, sexism effect sizes did not differ demonstrably across different types of AAPs. The correlation of sexism and AAP attitudes was an estimated ρ of –.484 under either strongly preferential treatment or tiebreak conditions and an estimated ρ of –.418 for opportunity-oriented AAPs. Confidence intervals for these two values overlapped considerably; hence, Hypothesis 10b was not supported.

Hypotheses 6a, 6b, 11a, and 11b: Political Ideology, Party Identification, and AAP Structure

As shown in Tables 12 and 13, the meta-analytic effect sizes for political ideology (with high numbers indicating conservatism) and party identification (with U.S. Democrats coded as 0 and Republicans coded as 1) are based on very large *N*s (15,684 and 10,848, respectively). This is due to the inclusion of large samples obtained in national opinion surveys. Supporting Hypotheses 6a and 6b, both variables had negative correlations with AAP attitudes, although political ideology (ρ = –.349) was a more powerful predictor than party identification (ρ = –.238). Distributions of correlations for each of these variables had a significant potential for moderators, $\chi^2(22, N = 15{,}684) = 266.35$ and $\chi^2(14, N = 10{,}848) = 88.24$, ps $< .001$, respectively. Because there was only a single tiebreak AAP studied in conjunction with political ideology, the data do not allow a conclusive test of the nonmonotonic effect predicted by Hypothesis 11a. There were no studies of party identification under opportunity-oriented AAPs, so Hypothesis 11b was also untestable. However, it is instructive to point out that the estimated correlation of party identification with AAP attitude

Table 8
Meta-Analytic Relationship of Personal Experience of Discrimination and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 4a and 9a)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	24	6,151	.159	.012	(.115, .203)	.190	.012	(.051, .329)
Presentation and prescriptiveness of AAP								
Specific (explicit)	18	6,088	.144	.012	(.093, .196)	.174	.014	(.025, .323)
Strong preferential treatment	1	125	.060		(−.115, .235)	.073		
Tiebreak	4	1,237	.055	.002	(−.001, .110)	.062	.000	(.062, .062)
Opportunity oriented	3	1,450	.110	.014	(−.024, .243)	.136	.018	(−.037, .309)
Mixed	10	3,276	.200	.010	(.136, .257)	.240	.009	(.116, .365)
Generic (tacit)	6	1,775	.183	.016	(.083, .283)	.226	.019	(.050, .403)
Sample								
Laboratory	9	894	.150	.009	(.086, .215)	.178	.000	(.178, .178)
Field	22	7,020	.137	.012	(.091, .184)	.162	.013	(.018, .306)

Table 9
Meta-Analytic Relationship of Perceived Target Group Discrimination and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 4b and 9b)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	33	9,519	.263	.033	(.201, .325)	.313	.042	(.052, .574)
Presentation and prescriptiveness of AAP								
Specific (explicit)	29	8,752	.253	.032	(.188, .318)	.301	.041	(.043, .559)
Strong preferential treatment	6	701	.382	.019	(.272, .492)	.461	.018	(.292, .631)
Tiebreak	2	729	.239	.021	(.039, .438)	.302	.029	(.083, .522)
Opportunity oriented	5	2,158	.158	.005	(.094, .222)	.189	.004	(.222, .690)
Mixed	16	5,164	.277	.040	(.179, .374)	.325	.051	(.037, .613)
Generic (tacit)	4	767	.380	.028	(.218, .543)	.450	.032	(.220, .680)
Sample								
Laboratory	9	2,126	.163	.024	(.062, .264)	.196	.029	(−.021, .414)
Field	32	9,350	.285	.037	(.218, .351)	.335	.047	(.059, .611)

was –.206 for strong preferential treatment and –.066 for tiebreak. This portion of the effect runs opposite the prediction in Hypothesis 11b.

Hypothesis 12: Generic (Implicit) Versus Specific (Explicit) Definition of AAPs

Our penultimate hypothesis proposed that under conditions in which no details are presented about an AAP, effect sizes would generally be stronger for perceiver characteristics than when details are given. That is, we proposed that explicit versus implicit presentation of AAPs was a moderator of perceiver effects. To test this prediction, we compared the average meta-analytic correlations under tacitly defined (generic) versus explicitly defined (specific) AAP structures. Averages in the latter set of structures were computed by translating corrected correlations to Fisher's *z*′s, finding the mean, and then back-translating to the correlation metric. Because we have already noted that there are differences across the specific AAP structures, we do not refer to these correlations as population estimates (ρ) but rather as mean corrected *r*s.

For the race breakdown of African American versus White American respondents, the mean meta-analytic correlation between race and AAP attitude for the tacitly defined AAPs was .464 and for the explicitly defined AAPs was .264 ($p < .01$, difference). In the other race-based comparisons, the Hispanic American versus White American difference was correlated with attitude in both the generic ($r = .263$) and specific ($r = .253$) AAPs (*ns*); corresponding correlations were .240 and .085 ($p < .01$, difference), respectively, in the African American versus Hispanic American effects. For gender, the comparison was a mean *r* of .166 under tacit conditions and of .148 under explicit conditions (*ns*). For personal self-interest, the corresponding average correlations were .635 and .330 ($p < .01$), respectively. Likewise, for collective self-interest, the mean correlations were .514 and .322 ($p < .01$). Moving through the remaining values more succinctly, the comparison of effect sizes between tacitly and explicitly defined AAPs

Table 10
Meta-Analytic Relationship of Racism and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness and Type of Racism (Hypotheses 5a and 10a)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	28	17,825	−.284	.011	(−.322, −.246)	−.400	.016	(−.564, −.236)
Presentation and prescriptiveness of AAP								
Specific (explicit)	25	13,250	−.310	.010	(−.353, −.274)	−.436	.015	(−.593, −.279)
Strong preferential treatment	6	6,694	−.329	.007	(−.396, −.263)	−.486	.012	(−.625, −.346)
Tiebreak	1	176	−.220		(−.361, −.079)	−.285		
Opportunity oriented	4	549	−.208	.005	(−.288, −.128)	−.275	.000	(−.275, −.275)
Mixed	14	5,831	−.308	.013	(−.368, −.284)	−.426	.019	(−.604, −.248)
Generic (tacit)	4	4,750	−.202	.002	(−.229, −.175)	−.295	.001	(−.342, −.249)
Form of racism								
Old fashioned	10	12,523	−.191	.009	(−.250, −.131)	−.283	.018	(−.454, −.112)
New	21	10,612	−.389	.009	(−.430, −.348)	−.535	.013	(−.679, −.391)
Sample								
Laboratory	11	5,589	−.196	.004	(−.233, −.159)	−.251	.003	(−.323, −.179)
Field	21	17,721	−.309	.021	(−.370, −.248)	−.456	.041	(−.714, −.198)

Table 11
Meta-Analytic Relationship of Sexism and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 5b and 10b)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	12	1,448	−.407	.019	(−.486, −.329)	−.518	.021	(−.704, −.331)
Presentation and prescriptiveness of AAP								
Specific (explicit)	17	1,728	−.389	.020	(−.457, −.321)	−.500	.022	(−.688, −.311)
Strong preferential treatment	5	279	−.351	.013	(−.454, −.247)	−.461	.000	(−.461, −.461)
Tiebreak	1	33	−.510		(−.766, −.254)	−.683		
Opportunity oriented	6	469	−.326	.038	(−.482, −.171)	−.418	.045	(−.689, −.148)
Mixed	5	947	−.426	.011	(−.517, −.336)	−.535	.011	(−.667, −.402)
Generic (tacit)	1	96	−.420		(−.586, −.254)	−.540		
Sample								
Laboratory	8	543	−.316	.038	(−.451, −.181)	−.409	.043	(−.674, −.144)
Field	10	1,281	−.422	.008	(−.467, −.377)	−.539	.005	(−.626, −.453)

was as follows: $r = .226$ vs. .174 (*ns*) for personal experience with discrimination; $r = .450$ vs. .301 ($p < .05$) for beliefs about target group discrimination; $r = –.295$ vs. –.436 for racism correlations ($p < .01$, but opposite the predicted direction); $r = –.540$ vs. –.500 for sexism (*ns*); $r = –.511$ vs. –.262 for political ideology ($p < .01$); and $r = –.226$ vs. –.211 (*ns*) for party identification. Taken together, these results support Hypothesis 12, with 11 of 12 comparisons following the prediction (and 6 of these supported by significance tests). If the effect sizes were truly the same across generic versus specific AAPs, then the likelihood of the above pattern would be $p = .03$.

The only exception involved correlations between racism and AAP attitudes. Closer inspection of these data revealed that the effect sizes involving tacitly defined AAPs also used instruments measuring old-fashioned racism, which we have shown to have a weaker connection to AAP attitudes. After accounting for the confound between type of measure and structure of the AAP, there were no correlation differences.

One problem with the above analyses is the pooling of all explicitly presented AAPs, which combines opportunity-oriented forms with preferential approaches. Breaking up the explicit AAPs provides a clearer picture of the results. When the most prescriptive and explicit AAPs (strong preferential treatment) are broken out, effect sizes are quite similar to those obtained for implicitly presented AAPs. In 9 of 12 comparisons, there were nonsignificant differences between the implicit presentations and the explicit presentations that involved strong preferential treatment. Effects of personal self-interest and political ideology were significantly greater (ps $< .05$) when the AAP was implicit. The reverse was true for effects of racism, but the difference was nullified after type of racism (see above) was controlled.

Hypothesis 13: AAP Justification

The last relationship of interest also stems from how the details of an AAP are presented and, in this case, the reasoning given or not given for the AAP's existence. The impact of any such justification on AAP attitude is shown in Table 14. The overall effect was a ρ of .150, which supports Hypothesis 13. A heterogeneity test, $\chi^2(16, N = 5{,}948) = 41.82$, $p < .01$, implied the operation of systematic moderators. The most obvious potential moderator is the type of justification provided. We were able to obtain several effect sizes for three different justifications. Supporting Hypothesis 13 (and consistent with Hypothesis 4b), justifying the AAP by

Table 12
Meta-Analytic Relationship of Political Ideology (Conservatism) and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 6a and 11a)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	23	15,684	−.284	.026	(−.350, −.218)	−.349	.036	(−.591, −.107)
Presentation and prescriptiveness of AAP								
Specific (explicit)	16	10,966	−.209	.010	(−.259, −.159)	−.262	.013	(−.411, −.114)
Strong preferential treatment	6	8,153	−.189	.008	(−.258, −.119)	−.241	.011	(−.073, −.073)
Tiebreak	1	465	−.180		(−.268, −.092)	−.220		
Opportunity oriented	3	590	−.225	.001	(−.302, −.148)	−.281	.000	(−.281, −.281)
Mixed	6	1,758	−.306	.017	(−.409, −.202)	−.380	.019	(−.559, −.202)
Generic (tacit)	8	5,183	−.437	.022	(−.541, −.334)	−.511	.028	(−.727, −.295)
Sample								
Laboratory	25	16,417	−.285	.025	(−.347, −.222)	−.348	.035	(−.589, −.108)
Field	17	1,137	−.203	.010	(−.250, −.155)	−.255	.013	(−.402, −.109)

Table 13
Meta-Analytic Relationship of Party Affiliation and Affirmative Action Program (AAP) Attitude, Moderated by AAP Prescriptiveness (Hypotheses 6b and 11b)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	15	10,848	−.182	.009	(−.231, −.134)	−.238	.013	(−.384, −.092)
Presentation and prescriptiveness of AAP								
Specific (explicit)	12	9,841	−.177	.001	(−.312, −.122)	−.211	.014	(−.381, −.080)
Strong preferential treatment	4	6,226	−.161	.003	(−.215, −.106)	−.206	.004	(−.286, −.125)
Tiebreak	3	768	−.053	.001	(−.124, −.018)	−.066	.000	(−.066, −.066)
Opportunity oriented	0	0						
Mixed	5	2,847	−.245	.016	(−.356, −.134)	−.336	.027	(−.545, −.127)
Generic (tacit)	6	1,775	−.183	.015	(−.283, −.082)	−.226	.019	(−.403, −.050)
Sample								
Laboratory								
Field	15	10,848	−.182	.009	(−.231, −.134)	−.238	.013	(−.384, −.092)

Note. Republican (1) versus Democrat (0).

saying it remedied past discrimination toward the target group helped to increase AAP support (estimated ρ = .194). A similar positive effect was observed when affirmative action was justified by arguing that it was needed to increase diversity (ρ = .172). However, justifying affirmative action by pointing out that the target group was numerically underrepresented had a negative effect. This type of justification decreased support for AAPs (estimated ρ = –.096; the confidence interval for *r* did not contain zero).

Discussion

Five general conclusions can be drawn from these results. First, AAP structure and all of the perceiver characteristics studied in the present article are significantly associated with attitudes toward affirmative action. Some of the effects are quite large. This quantitatively confirms some of the conclusions drawn in previous narrative reviews (e.g., Konrad & Linnehan, 1999; Kravitz et al., 1997) while providing definitive estimates of effect sizes. Second, the structure of an AAP moderates the relationship between many of the perceiver characteristics and attitudes toward that AAP. When moderation does exist, more prescriptive AAPs (e.g., preferential treatment for those in a particular demographic category) tend to widen the attitudinal divide across races and genders, as well as accentuate the effects of personal self-interest, beliefs about discrimination suffered by the target group, and racism. Third, the explicitness with which an AAP is described moderates the relationship between the perceiver characteristics and AAP attitudes; perceiver characteristics have a larger effect on attitudes when the AAP is tacitly defined than when it is explicitly defined, pooling over all explicit definitions. Digging deeper, the relationship between perceiver characteristics and AAP attitudes is largest when the AAP is implicitly defined or when the AAP is explicitly defined to involve strong preferential treatment. Fourth, the relationships between perceiver characteristics and AAP attitudes are moderated by other variations in predictor (i.e., new vs. old-fashioned racism) and criterion (i.e., fairness vs. attitude) measurement. Fifth, justifying the use of an AAP can lead to more positive evaluations but can backfire if the justification focuses solely on underrepresentation of the target group. In the following paragraphs, we elaborate on these conclusions and develop implications for researchers and practitioners.

Main Effects of AAP Structural Features and Perceiver Characteristics

Clearly, as AAPs place a greater emphasis on demographic characteristics they are seen in a more negative light. In general, highly prescriptive AAPs violate merit- or equity-based justice norms. If one wished to fan the flames of AAP resistance, posi-

Table 14
Meta-Analytic Relationship of Justification and Affirmative Action Program (AAP) Attitude, Moderated by AAP Type of Justification (Hypothesis 13)

Variable	*k*	*N*	Mean *r*	Variance *r*	95% confidence interval	Estimated ρ	Variance ρ	80% credibility interval
All independent samples	17	5,948	.137	.007	(.098, .176)	.150	.005	(.061, .240)
Type of justification								
Remedy of past discrimination	6	2,467	.192	.004	(.154, .231)	.194	.002	(.148, .275)
Increase diversity	4	430	.158	.003	(.066, .251)	.172	.000	(.172, .172)
Group is underrepresented	7	3,051	−.086	.005	(−.121, −.051)	−.096	.003	(−.167, −.030)
Sample								
Laboratory	8	1,195	.209	.010	(.154, .263)	.231	.004	(.145, .316)
Field	9	4,753	.119	.004	(.075, .163)	.130	.003	(.058, .206)

tioning them as quotas would be an effective strategy. Still, a close look at the results for AAP prescriptiveness across Tables 4–13 shows that even under AAPs for which equity arguments are less trenchant—targeted recruiting or extra training—attitudinal resistance is related to perceiver variables.

Those variables include both demographic and psychological features. Demographically, evaluations of AAPs are more positive among target group members (e.g., minorities and women) than among non-target-group-members. Psychologically, AAP attitudes were positively related to perceptions that the AAP would be in the respondent's personal or collective self-interest. Support for AAPs was inversely related to prejudice (racism and sexism). Consistent with political debates surrounding AAP policy, liberals and Democrats were more supportive than conservatives and Republicans. One way to summarize these findings is to say there will likely be sharp attitudinal differences about AAPs in any workforce for which there is a broad spread on any of the above variables. Given the population splits on those variables, such spread is likely to be the norm rather than the exception, making management of AAP attitudes a challenge.

Personal experiences of discrimination were weakly related to AAP evaluations. This weakness may have been due to moderation of the relation by the match between the demographic status of the respondent and the target group. That is, personal experience of discrimination should increase support for AAPs only if the respondent is a member of the target group; the reverse effect may be obtained for nontarget group members who believe they have experienced reverse discrimination. There is mixed empirical support for this interaction (Kravitz et al., 2000), which we could not tease out in this meta-analysis because of a lack of data.

Joint Effects of AAP Structural Features With Perceiver Characteristics

Interactions of the above variables are more interesting and less predictable than their main effects. We observed a general trend toward enhanced or synergistic effects consistent with organizational (in)justice theory. The greater the weight given by AAPs to employee demographic background, the stronger the relationship between AAP attitudes and perceivers' racial prejudice and personal self-interest. Racial and gender polarization in attitudes are also at their most extreme for the most prescriptive AAPs. That is, strongly preferential AAP structures create the hottest flashpoint and most attitudinal divisiveness based on perceiver characteristics.

No discernible moderating pattern was observed for collective self-interest, personal experience with discrimination, sexism, or the political variables. Either the interactive influences of AAP prescriptiveness were more complex than our hypotheses predicted, or there were not enough studies to provide clear evidence of differential effects (especially if effect size differences were small; Aguinis & Pierce, 1998). Comparison of effects across different AAP structures involved over 10,000 observations for African American–White American and gender correlations but fewer than 2,000 for collective self-interest, and these were not evenly distributed across the prescriptiveness continuum. Unlike additional research on the main effects of race and gender, which we believe has little marginal utility, studies of discrimination experiences, self-interest, and political orientation variables have the potential to generate new insights about AAP attitude formation, especially if they are studied in the context of tiebreak or less prescriptive AAPs.

For example, self-interest folds all possible (negative and positive) outcomes of an AAP into the same metric. Foa and Foa (1980) discussed dimensions of outcomes that might differentially motivate self-interest effects, including social status and pay. For collective self-interest, the referent is one's social group, and the most salient outcome might be status. Similarly, the nature of discrimination experiences is not well integrated into the AAP literature. The degree to which those are stigmatizing should be a driver of experience effects (Heilman, 1994). For reverse discrimination, there is less of an implication that the majority group member's identity is being devalued, and, hence, effects are likely to be clouded if that form of discrimination is not distinguished from conventional forms targeted at minority groups.

Presentation of AAPs to Perceivers

In a finding presaged by Kravitz and Klineberg (2000), relationships of most perceiver characteristics with attitudes were larger when the AAP was implicitly (tacitly) defined than when it was explicitly defined (pooled over all explicit definitions). For example, the estimated mean effect size of political ideology is .511 when the AAP is tacitly defined and only .262 when it is explicitly defined. We attribute this result to a tendency for respondents to construe an undefined AAP in a manner consistent with their preexisting schemas of affirmative action (Nacoste, 1994). To continue the previous example, under tacit conditions, liberals, who tend to favor affirmative action for political reasons, may assume the AAP involves the elimination of discrimination and opportunity enhancement—the actions they most favor. Conservatives, who tend to oppose affirmative action for political reasons, may assume the AAP involves strong preferential treatment, which is the approach they most oppose. Thus, the total effect of political ideology under tacit conditions may combine the pure effect of political ideology with some additional effect of AAP prescriptiveness. Perceiver characteristics most potently predict attitudes when the AAP is said to involve strong preferential treatment or is left undefined.

Other Moderators and Justification of AAPs

All the analyses revealed likely moderation effects beyond those of AAP prescriptiveness. One example was provided by the moderating effect of type of racism. AAP attitudes correlated more strongly with the new forms of racism than with old-fashioned racism. In another new finding, AAPs were seen more positively when a perceiver was informed that the AAP would enhance organizational diversity or that the target group had experienced employment discrimination, but justifying an AAP merely by pointing out that the target group was underrepresented decreased support. We infer that the apparent inconsistency of these last two results occurred because many respondents, especially White men, assume that underrepresentation is due to factors other than discrimination (Saad, 2003a, 2003b). If underrepresentation is not due to discrimination, then providing additional assistance to the group through underrepresentation would be seen as unfair and thus opposed. It is important to note that the justification of past

discrimination explained the lower numbers of target group members. This is important because the use of analyses required by U.S. federal regulations reveals underrepresentation rather than past discrimination. Underrepresentation alone implies the need for special actions to increase a group's employment opportunities. Of interest, the justification studies did not specify a locus of the cause of past discrimination when it was presented (e.g., in the firm or in society as a whole), which would be an intriguing research angle. Continued justification work could help to explain the justice- or instrumentality-based reasons for these reactions. At the least, they serve as an immediate cue to practitioners who need to describe and carry out AAPs for their firms.

Limitations and Recommendations for AAP Researchers

With few exceptions, relatively few effects were available for examining the full range of moderator hypotheses involving the primary structural feature of AAPs, their prescriptiveness. The number of tiebreak investigations was consistently fewer than five, except for effects involving perceiver race and gender. In addition, so few studies used the opportunity enhancement and equal opportunity AAPs that we were forced to combine them into a single opportunity-oriented AAP category. This lack of research essentially limited AAP prescriptiveness to two conditions rather than the full continuum, which weakened tests of the monotonic interactions (Hypotheses 7a–10b) and precluded tests of a nonmonotonic interaction (Hypotheses 11a and 11b). Clearly, more research using the less prescriptive forms of AAPs is needed. Governmental regulations emphasize the elimination of discrimination along with recruitment and other nonpreferential procedures (e.g., Reskin, 1998). If applied psychologists hope to learn how employees respond to realistic, legal AAPs, then they should use such AAPs in their research. In addition, although the tiebreak procedure is permitted under limited circumstances (e.g., when it is remedial, temporary, and does not unduly burden others; cf. Robinson, Seydel, & Douglas, 1998), researchers might also want to include it as the most extreme case of AAP prescriptiveness.

We are ambivalent regarding the continued use of strong preferential treatment in this research domain. On the one hand, because many people think that AAPs involve preferences (Aberson & Haag, 2003; Golden et al., 2001), use of such AAPs helps explain naturally occurring attitudes. On the other hand, such preferences are almost always illegal and the research use of such an AAP helps build and perpetuate the public belief that affirmative action involves the abandonment of merit as an employment principle (as well as the belief that merit correlates negatively with membership in protected demographic groups).

Just as important, more data from a variety of sources and research designs would help this domain. Behavioral reactions to AAPs are rarely investigated, and data on them are sorely needed (Bell et al., 2000). Although there are anecdotal data, the nature of enactment of AAP attitudes in the workplace is virtually unknown. As with other areas of applied psychology, there is also little longitudinal research on AAP reactions. Following new entrants into the work force and assessing their attitudes at regular intervals might reveal whether such feelings tend to move toward the center or toward the extremes as one directly and vicariously experiences selection systems. Should interest continue in the variables covered in this meta-analysis, more comprehensive designs—with simultaneous use of all relevant predictors—would permit assessment of overlapping versus incremental effects. Finally, cross-level designs are conspicuously absent from AAP research. Such designs might address whether there is a "diversity climate" or set of socialization experiences that helps explain variance in AAP attitudes.

Regarding external validity, this body of research offers both positive and negative results. On the positive side, meta-analysis tackles the issue directly by cumulating data from diverse samples and contexts and allowing researchers to observe stability in effects over those contexts and samples. Indeed, our assessment of the main effects of AAP prescriptiveness and perceiver characteristics were based on *k*s of 12 (sexism) to 63 (gender). As there were no systematic laboratory versus field differences, there is little reason to be concerned about inflated estimates of effects due to the use of artificial or highly contrived scenarios with student subjects (Greenberg & Eskew, 1993). Moreover, the largest studies involved nationwide probability samples of adults.

On the negative side, the AAP category that received the greatest empirical scrutiny was strong preferential treatment. This might reflect a common assumption that affirmative action involves clear racial or gender partiality, but it is contrary to the fact that such partiality is almost always illegal (Spann, 2000). At the other extreme, fewer effects involve use of the legal, recommended, and most ecologically valid categories of AAPs (e.g., opportunity enhancement).

The limitations discussed above and the results of this meta-analysis have several other implications for future AAP attitude research. First, we recommend that researchers who intend to study AAP evaluations use attitude rather than fairness measures. Although closely related, the two concepts are not identical. Also, more general attitudinal reactions toward AAPs are likely to reflect variance stemming from the rich array of independent variables examined here; more specific fairness judgments might cue perceivers to focus on AAP structural details. Choice of a narrower dependent construct inadvertently narrows the predictor space as well.

Second, the effect sizes of the perceiver characteristics were substantial. Scholars who hope to fully understand attitudes toward affirmative action cannot afford to ignore them by concentrating only on AAP structural details. They will likely be testing misspecified models or be missing opportunities to explore more complex and more poorly understood relationships involving joint effects. Furthermore, exclusion of any of the perceiver characteristics documented in the current analysis will also lead to misspecified models. This means that future studies of AAP attitudes should attain a fairly high level of operational (and conceptual) comprehensiveness. Although there may be methodological reasons for excluding some predictors (e.g., the reactivity generated by racism and sexism measures), a full understanding of AAP attitudes requires inclusion of the perceiver characteristics noted in the current analysis as well as structural details.

Third, because main effects of perceiver characteristics are now well established, future research should concentrate both on interactions (as in this meta-analysis) and on patterns of direct and indirect mediation. For example, more information is needed about the interaction between AAP prescriptiveness and beliefs about the extent of discrimination experienced by the target group. These factors might also interact in interesting ways with the justification

given for the AAP's existence. Turning to mediation, effects of AAP prescriptiveness, as well as of respondent race and gender, may be mediated by judgments of self-interest (Aberson, 2003; Kravitz, 1995). Respondent race and gender differences may also be mediated by racism, sexism, justice, and belief in the existence of discrimination (Konrad & Spitz, 2003).

Fourth, researchers should more vigorously investigate the relation between affirmative action attitudes and behavior (see Bell et al., 2000). Do managers who voice support for AAPs behave in ways that enhance the employment opportunities of underrepresented groups? Some research suggests they do (Konrad & Linnehan, 1995a; Slack, 1987), but more work is needed. Do attitudes toward affirmative action predict whether potential employees apply for positions at organizations with more or less prescriptive AAPs? Some research shows that African American students report positive attitudes toward AAPs and that the type of AAP would influence their application decisions, but actual decisions have not been assessed (Slaughter et al., 2002). Other research shows that the effect of an AAP on attraction of (mostly White) respondents to an organization was positive for women and negative for men (Kaiser, LeBreton, Bedwell, Reynolds, & Van Stechelman, 1997). Are individuals who oppose affirmative action especially likely to stigmatize coworkers who are hired under the auspices of an AAP? The possibility of stigmatization has stimulated a substantial body of research, mostly done in the laboratory. It indicates that observers tend to stigmatize individuals they know or believe to have been selected because of preferential affirmative action (Heilman, 1994), but stigmatization can be greatly reduced by providing observers with incontrovertible evidence of the target individual's competence or by stating that the AAP did not involve preferences (Evans, 2003; Heilman, Battle, Keller, & Lee, 1998; but see Resendez, 2002). Are managers and others who oppose affirmative action likely to discriminate against or harass potential affirmative action target group members, particularly when pressured to give preferences to those group members (Nacoste, 1994)? We know of no research on this question. In short, there is a great need for research that links affirmative action attitudes to significant workplace conduct.

Recommendations for Organizations

Implications of these meta-analytic results for organizational practitioners revolve around two issues. First, we assume organizations would like to minimize opposition and increase support for their AAPs. Opposition may decrease attraction and attachment to the organization as well as performance if the lack of favorable outcomes for some employees following an AAP may be attributed to what is seen as an unfair procedure (Schwarzwald, Koslowsky, & Shalit, 1992). Increased support should enhance the success of the AAP. Second, we assume organizations would like to minimize perceptual and attitudinal disagreements among employees regarding their AAPs. We address each of these issues below.

Increasing support. There is a large, robust association between perceptions of fairness and AAP attitudes. There are also dependable relationships between fairness perceptions and organizationally important employee behaviors, such as withdrawal of task inputs and contextual (citizenship) performance (Colquitt et al., 2001). Hence, there are potentially critical steps that organizations might take to ensure that their AAP is considered to be fair. It is important to realize that the key elements of an AAP as required by Executive Order No. 11246 are the elimination of barriers and the use of numerical analyses to determine whether the target groups are underutilized compared with their prevalence in the relevant labor market. When underrepresentation is revealed, the preferred approach is to carefully analyze organizational practices to reveal (and then eliminate) hidden barriers and to use focused recruitment to find qualified applicants who belong to the target group (Gutman, 2000; Office of Federal Contract Compliance Programs, 2002). Use of transparent selection procedures would tend to enhance perceived fairness, and expansion of the usual predictor battery to decrease adverse impact without losing appreciable validity would improve representation of underrepresented groups without stimulating opposition (Hough, Oswald, & Ployhart, 2001). An organization could also take additional actions that are open to all employees but are especially helpful for members of the target group. Unless required by court order or necessary because of a history of discrimination and severe underrepresentation, organizations should use the less prescriptive (and officially required or recommended) AAP structures. Furthermore, any steps beyond the elimination of discrimination must be temporary—designed to eliminate underrepresentation but not to maintain proportional representation (*United Steelworkers of America, AFL-CIO v. Weber*, 1979).

In terms of its impact on opposition to AAPs, organizational communication about the AAP may be as important as its structure. Moving employees from implicit to explicit perceptions of the AAP is critical. At a minimum, the organization should communicate unequivocal features of the AAP, especially that it does not involve preferences at the point of selection decision (as in the opportunity-oriented programs). As evidence of this fact, it might detail the qualifications of all new hires, including target and nontarget group members. In addition, organizations might do well to justify the use of affirmative action. In this regard, our results indicate justifications should emphasize the need to redress past discrimination and the practical value of the diverse workforce that results from successful AAPs (e.g., Frink et al., 2003). Emphasizing the role of underrepresentation is likely to backfire. These communications should be directed at both current employees and potential applicants (e.g., in recruitment materials). Provision of such an explanation should enhance both procedural and interactional justice (Colquitt et al., 2001). Many executives want to develop a workforce that values diversity, and such explanations should contribute to this goal.

Minimizing disagreements. The extent of disagreement stimulated by the AAP will be directly related to the extent of group differences in attitudes, and the largest group differences are observed when the AAP is undefined. In that situation, individuals either assume that the AAP involves preferences or construe the AAP in light of their preexisting schemas and then react (forcefully) to their implicit construal. If organizations avoid describing an AAP in hopes that ignoring it will minimize resistance or tension, that approach appears likely to backfire. Thus, we recommend that organizations publicize the details of their (nonpreferential) AAPs rather than keeping quiet about them. In keeping with attitude theory (Bell et al., 2000; Fishbein & Ajzen, 1975; Kravitz & Platania, 1993), organizations should build cognitive connections to the values that are espoused in both support of and

opposition to affirmative action. The most consistent argument against affirmative action is that it replaces merit-based selection. This argument is valid only if selection in the absence of affirmative action is consistent with the merit principle and if affirmative action involves preferences. Again, this implies that organizations should avoid the use of preferences and should communicate that fact.

Public Policy Implications

It is difficult to publish a comprehensive summary of research in this area without broaching descriptive and prescriptive implications for public policy. Indeed, the debate surrounding AAPs has been enjoined not only in political circles but also in educational contexts (see Sander, 2004, for a thought-provoking critique) as well as in employment. With respect to the latter, because both opposition and conflict are most evident for preferential forms of affirmative action, such approaches should be required (and permitted) only when necessary because of long-standing discrimination and underrepresentation that the organization has failed to remedy. This is the current status of the law in the United States. Unfortunately, much of the public believes affirmative action necessarily involves preferences, a belief due in part to both political rhetoric and media misrepresentations (Crosby, 2004). This, along with the effects of tacit versus explicit definitions, implies that responsible authorities (e.g., leaders within the Office of Federal Contract Compliance Programs) should make a determined effort to provide the public with a more realistic portrayal of affirmative action, politically difficult though this may be.

Conclusion

Attitudes toward AAPs are complex. Our meta-analytic evidence shows that those attitudes stem from structural features of the programs themselves, from the employees (perceivers) who evaluate the programs, from ways that organizations communicate those programs, and from interactions among those determinants. Following McGuire's (1968) admonitions that a pretzel-shaped world might need pretzel-shaped hypotheses, theory and future investigations designed to explain AAP attitudes must be similarly complex. In addition, as firms and governments nearly everywhere try to achieve greater balance and diversity in their workforces, such complex research will still be eminently practical.

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