

# The Symbolic Benefits of Descriptive and Substantive Representation

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**Abstract** One of the major challenges in providing quality representation comes from the desire to balance the will of the majority with the needs of political minorities. Of particular importance is whether substantive or descriptive representation are necessary to create symbolic representation and perceptions that government outcomes are fair and legitimate. In this paper, we employ a novel experimental design to investigate how citizens feel about the relative importance of descriptive and substantive representation. Drawing on data from a nationally representative sample and two supplemental experiments, we show that citizens value descriptive representation independently of substantive representation. We also demonstrate that the degree of descriptive representation desired is conditional on the nature of the policy being considered.

**Keywords** Representation · Race · Legitimacy

## Introduction

Representation lies at the core of all modern democracies. Citizens elect representatives to act on their behalf in decision-making bodies from Congress to local school boards, and the quality of their representation influences citizens' trust

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in government, political efficacy, civic engagement, and political knowledge. One of the major challenges in providing representation in diverse democracies comes from the desire to balance the will of the majority with the needs of minorities. Because much of politics is contestation amongst groups, increasing the representation of one group often entails reducing the representation of another. As a result, efforts to boost the representation of the majority group might come at the expense of minority groups and vice versa.

There are many ways to conceptualize high quality representation. Early research on representation focused on the relationship between constituents' opinions, on the one hand, and elected representatives' policy-making behavior, on the other (see Miller and Stokes 1963). Alternatively, groups might receive high quality representation through electing more of their own group members to decision-making bodies, regardless of if this results in greater congruence between constituents' opinions and policy output.

Designers of democratic institutions often face tradeoffs between these two aspects of representation—substantive and descriptive, respectively—when it comes to the representation of minority groups. Because of their smaller proportion in the population and the prevalence of first-past-the-post electoral systems in American politics, many minority groups are descriptively underrepresented at most levels of government. To improve descriptive representation, policymakers have sought to construct majority-minority districts, which effectively guarantee the election of minority representatives. However, boosting descriptive representation can have negative consequences. By drawing districts to improve minority descriptive representation, policymakers also risk reducing the collective substantive representation of minority groups by creating fewer districts in which the minority group can wield influence (Cameron et al. 1996).

Before we can begin to evaluate how best to represent the interests of minorities, we need to know how highly minority and majority group members value different aspects of representation. Substantive and descriptive representation might have different effects on the extent to which constituents feel that they are being fairly and legitimately represented. If descriptive representation is sufficient for minority group members to perceive outcomes to be fair and legitimate, then we need not be overly concerned with the negative substantive effects of majority-minority districting. If, however, descriptive representation offers no appreciable benefits to members of minority groups' feelings of being represented, then focusing on enhancing descriptive representation at the expense of substantive representation is ill-founded.

In this paper, we contribute to the literature on representation in several ways. First, we investigate how citizens, not scholars, evaluate descriptive and substantive representation. Although the stockpile of studies on the two aspects of representation has grown dramatically, the citizen's perspective has often been overlooked.<sup>1</sup> Second, we employ a novel experimental design that facilitates estimating both the independent and integrated effects of substantive and descriptive representation. This allows us to disentangle the considerable overlap between the two aspects that

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<sup>1</sup> For notable exceptions, see Tate (2003) and Casellas and Wallace (2015).

hinders observational studies. Third, our method allows us to derive implications for maximizing feelings of symbolic representation across social groups rather than within a single group, focusing here on African Americans and whites. Finally, we diverge from the bulk of the literature on descriptive representation by focusing on collective rather than dyadic descriptive representation.

## Evaluating Representation

Democratic theorists have long been concerned with the proper form of representation in modern governance. In her classic work *The Concept of Representation*, Hanna Pitkin establishes four aspects of representation: formalistic, substantive, descriptive, and symbolic (Pitkin 1967).

Scholars normally define substantive representation as having one's policy views expressed by an elected representative, and this aspect of representation has formed the bedrock of empirical work on the extent of groups' representation in the United States. Early research, such as Miller and Stokes (1963), investigated whether constituent opinion was congruent with representatives' behavior in the form of roll-call votes. Their findings indicate that representatives used perceptions of constituent preference to inform their behavior, and subsequent scholars find this representation link to be higher when issues are salient, when representatives view themselves as delegates rather than trustees, and when elections are near (Erikson 1978; Kuklinski 1978; McCrone and Kuklinski 1979; Page et al. 1984).

Descriptive representation, on the other hand, is generally seen as independent of policy actions. Instead, descriptive representation is the extent to which a representative or legislative body resembles a given constituent and her social or demographic identities. We would say that a black constituent is descriptively represented when she has a black member of Congress, regardless of whether that member of Congress shared her ideology, policy priorities, or political party.

Pitkin defines symbolic representation as the "power to evoke feelings or attitudes" (Pitkin 1967, p. 97), for example, the presence of a flag and the feelings of patriotism it inspires (Cerulo 1993) or other objects that can promote representative meaning (Lombardo and Meier 2014). Symbolic representation considers the meaning the representative has for the represented, irrespective of policy congruence (Lawless 2004). Studies of symbolic representation typically focus on the "attitudinal and behavioral effects" of descriptive representation (Lawless 2004, p. 81), including the "represented's feelings of being fairly and effectively represented" (Schwindt-Bayer and Mishler 2005, p. 407). This symbolic representation should manifest itself in both short term and long term effects. In the short term, symbolic representation can involve perceptions of procedural justice, satisfaction with decision-making processes, and specific support of government actors or actions (Tyler 1990; Hibbing and Theiss-Morse 2002; Easton 1975). In the long term, symbolic representation can involve higher levels of trust in government, perceptions of legitimacy or diffuse support, and greater interest and engagement in politics (Scherer and Curry 2010; Easton 1975; Lawless 2004).

These aspects of representation can often work together in tandem (Schwindt-Bayer and Mishler 2005). The presence (or absence) of minority officeholders shapes the output of legislatures, linking descriptive and substantive representation. Having greater policy congruence should improve satisfaction with outcomes and perceptions that those outcomes are legitimate. And constituents, particularly those from underrepresented groups, can feel empowered by having a representative like them in office, providing a symbolic link to the policy-making process (Bobo et al. 1990). Substantial empirical research has investigated the links between these aspects of representation with many find a modest positive link between symbolic and descriptive representation (Abney and Hutcheson 1981; Tate 2001; Banducci et al. 2004; Pantoja and Segura 2003; Ulbig 2007; Scherer and Curry 2010).

What is not clear, however, is whether the symbolic benefits of representation result from descriptive representation itself, substantive representation, or some combination of the two. For example, if descriptive representation tends to coincide with substantive representation, then the effects we attribute to descriptive representation might actually be due to substantive representation. Similarly, if descriptive representation tends to occur in certain types of districts, it might be the effects of those districts—and not descriptive representation—that is generating symbolic representation (see Grose 2011).

To clarify the effect of descriptive representation, it is crucial to separate it from substantive representation. Descriptive representation is concerned only with who a representative is, such as his or her race, ethnicity, gender, or sexual identity. Substantive representation, by contrast, is concerned only with what a representative does, such as crafting legislation, voting on bills, and securing pork for the district. The problem is that we cannot observe these two distinct aspects of representation independently. If black and white representatives tend to behave differently, then any observational study examining the impact of having a black versus a white representative will be unable to determine the effect of descriptive representation, *per se*. Instead, the observational study would be measuring the effect of descriptive representation plus the effect of any behavioral differences between black and white representatives.

In addition to the need for isolating the unique contribution of descriptive representation independent of differences in substantive representation, we should think critically about the level at which to investigate the effects of representation. Dating at least back to the work of Miller and Stokes (1963), the lion's share of work in representation has focused on the effects of dyadic representation—a single constituent's relationship with his or her elected official (usually in Congress). This work forms an important foundation for our understanding of representation, and the extant literature suggests that dyadic descriptive representation might boost political engagement and trust, although the evidence for this is stronger for gender than for race (Hansen 1997; Koch 1997; Gay 2002; Atkeson 2003; Campbell and Wolbrecht 2006). Although much can be learned by studying descriptive representation at the dyadic level, in this work we instead focus on feelings of symbolic representation produced at the collective level (c.f. Weissberg 1978). We do this for two primary reasons.

The first reason for focusing on collective rather than dyadic representation is a practical one: African Americans rarely experience dyadic representation, especially at the highest levels of government. In the 111th Congress, less than 9 % of House members were African Americans, compared to 13 % in the general population. Moreover, the combined black population of their districts totalled just over 12 million, representing less than a third of the nearly 39 million African American residents of the United States as of the 2010 Census. The second reason is that the effects of representation likely manifest themselves outside of the dyadic relationship between a constituent and his or her representative. Past research on collective women's representation, for example, has found that descriptive representation can reduce the gender gap in political engagement across a variety of contexts (Atkeson and Carrillo 2007; Desposato and Norrander 2009; Barnes and Burchard 2012) as well as improving feelings of symbolic representation (Schwindt-Bayer 2010). There is also some research suggesting similar effects of minorities in terms of engagement as well as aggregate-level policy-making (Hero and Tolbert 1995; Pantoja and Segura 2003; Baker and Cook 2005; Rocha et al. 2010).

Only a handful of studies have investigated this in terms of African Americans' descriptive representation. Tate (2003) and Overby et al. (2005) both investigate the effect of collective black descriptive representation, in Congress and in a state judicial system, respectively. We expand on these works in two ways. First, we adopt an experimental manipulation that provides respondents with information about the outcome of a decision-making body as well as the level of collective descriptive representation of African Americans that vary independently from one another. This allows us to avoid the difficulty of inaccurate perceptions of descriptive representation (c.f. Scherer and Curry 2010) as well as allowing us to separate the effects of the decision itself from the effects of descriptive representation.

## Theory and Expectations

Once we are able to separate the effects of substantive and descriptive representation, the question becomes what effect, if any, these aspects of representation have on majority and minority group members. For the purposes of this paper, we focus on the effects of black descriptive and substantive representation at the collective level in a local decision-making body. This allows us to investigate the possible effects of both aspects of representation without risking the confounding effects of partisanship.

There are many reasons to believe that substantive and descriptive representation might have a direct effect on constituents' feelings of symbolic representation. The literature suggests that decisions that are in line with a citizen's substantive interests should improve feelings of symbolic representation. However, identifying when a decision-making body substantively represents a citizen or group can be challenging. One option would be to measure the congruence between the entire set of an individual's policy positions and the policy output of that decision-making body. This approach would ignore the reality that many citizens do not hold strong and

stable positions on all issues, and the level of salience for issues might vary widely. Moreover, research has suggested that black constituents (and representatives) might care more about service and allocation than do white constituents (Tate 2003; Grose 2011). Rather than investigate the host of all issues, we investigate two issues in which there are clear benefits to African Americans (one of which is related to allocation, the other to policy more broadly). Drawing from research on the black utility heuristic (Dawson 1995), substantive policies that provide benefits to African Americans should improve their perceptions of symbolic representation.

Hibbing and Theiss-Morse (2002) argue that ordinary citizens are concerned not only with the types of policies being produced by Congress, but also by how these policies came about. In other words, citizens have preferences about processes, not just policies. This sentiment is mirrored in the literature on evaluations of the criminal justice system. Tyler (1988) argues that citizens' evaluations of judicial outcomes are not solely attributable to the content of the outcome itself. Instead, citizens also evaluate judicial outcomes on the basis of "procedural justice," which includes factors such as the perceived fairness of the process, the honesty of the judicial officials, and the extent to which representation is available to all.<sup>2</sup> These arguments suggest that higher levels of descriptive representation should directly improve citizens' feelings of symbolic representation, independent of whether substantive representation is occurring.

The proposition that substantive and descriptive representation might promote symbolic representation has been investigated, but the results are not entirely obvious. Tate (2003) finds that descriptive representation is indeed something that African Americans care about. As a result, we would expect black collective descriptive representation to have a positive effect on symbolic representation.<sup>3</sup> What is not clear, however, is how much black descriptive representation might be necessary to produce such an effect. Most argue that ideal representation would look something like proportionality (Guinier 1995; Mansbridge 1999), which would suggest that the greatest symbolic representation should occur when black descriptive representation is around 12–13 % nationally (although it might be much higher or lower locally).

The effect of black descriptive representation on whites' evaluations is less clear. Although there is some work on the effect of dyadic descriptive representation on whites, little is known about the effects of collective descriptive representation for white citizens. Research from dyadic representation suggests that whites react negatively to black descriptive representation (e.g., Gay 2001). This would predict that as black collective descriptive representation increases, symbolic representation for whites should decrease. Two caveats are in order. First, this research likely confounds descriptive and substantive representation, since being represented by a black member of Congress functionally affects both a constituent's descriptive representation as well as his or her substantive representation. Second, it is not clear

<sup>2</sup> This literature traces its roots to the work of Thibaut and Walker (1975)

<sup>3</sup> A finding supported with regard to courts by Scherer and Curry (2010), although their study did not take into account whether this effect would be independent of substantive outcomes.

that we can generalize from findings about dyadic representation to the effects of collective representation.

In sum, we have several main expectations based on the existing literature. First, substantive outcomes that provide benefits to African Americans should cause an increase in perceptions of symbolic representation for black respondents. Second, independent of the substantive outcome, we expect higher black descriptive representation should cause an increase in perceptions of symbolic representation for black respondents.

For white respondents, our expectations are the reverse. To the extent that respondents view outcomes as zero-sum, substantive outcomes that provide benefits to African Americans (at the expense of whites) should cause a decrease in perceptions of symbolic representation. Independent of the substantive outcome, higher black descriptive representation (and its corresponding decrease in white descriptive representation) should cause a decrease in perceptions of symbolic representation.

To investigate the relative impact of descriptive and substantive representation on white and black constituents, we conduct three related studies. Study One investigates the independent and joint effects of black descriptive and substantive representation in a nonpartisan local decision-making process. Study Two extends this analysis to consider the effects of representation when the decision itself is more contested and partisan. Study Three more thoroughly investigates whether black descriptive representation can compensate for unfavorable substantive outcomes across a broader range of levels of descriptive representation.

To disentangle the effects of descriptive and substantive representation, Study One uses an experiment that manipulates both the level of black collective descriptive representation as well as the substantive representation of black interests. Subjects were presented with a vignette, that described a local decision-making process. To eliminate the potential confound of partisanship, the vignette lacks any party cues and is also centered around a nonpartisan issue—the location of a new school. Subjects were randomly assigned to one of three levels of black descriptive representation—2, 5, or 10 black members on the committee out of 20 members.<sup>4</sup> Subjects were also randomly assigned to one of two substantive outcomes, either building a school in a predominantly white or a predominantly black neighborhood. We define a decision to build a school in a predominantly black neighborhood as the substantively favorable outcome for blacks. The vignette stated:

Suppose your community's local government has appointed a committee consisting of 20 registered voters from the community. The purpose of the committee is to recommend the location of a new school, which will replace

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<sup>4</sup> It is possible that subjects' evaluations of these rates of descriptive representation depend on the type of community they are thinking of. For example, those living in diverse communities might find 5 black representatives too low, whereas those living in homogeneous white communities might find 5 black representatives too high. To investigate this, we also ran an identical treatment on an MTurk sample that allowed us to identify subjects' zip codes. Including either actual or perceived percent black in the community as covariates had no effect on our substantive findings.

an existing school. Chances are high that this is the last new school your community will be able to build in a long time.

The committee identified two equally deserving locations. Each of the locations badly needs a new school. They differ in that one of the locations is in a predominantly white neighborhood, the other location in a predominantly African-American neighborhood.

This committee consisting of [18/15/10] white members and [2/5/10] black members has been holding hearings through the community and just announced its decision: the new school will replace the old school in the [white/African-American] neighborhood.

We included this vignette as part of a team module on the Cooperative Campaign Analysis Project (CCAP).<sup>5</sup> CCAP involves a YouGov survey of a representative sample of 1000 respondents each week during the lead up to federal elections. Our module was administered in September, 2012. Since we are interested in examining whites' and blacks' attitudes toward black descriptive and substantive representation, we exclude from analysis any respondent who did not identify his or herself as black or white.<sup>6</sup> Limiting analysis to white and black subjects yields a total of 865 observations (see Table 1 for number of observations per treatment).

To measure subjects' perceptions of symbolic representation, we asked three questions in random order related to the fairness of the decision. The first asked respondents to "think for a moment about the racial composition of this committee. Given this racial composition how fair was this decision to all members of the community?" The second question asked respondents "how fair was the decision-making process?" Finally, the third question asked respondents "how satisfied would you be with a decision-making body in your community with this racial composition?" Each of these was a 4-category Likert scale running from "Very fair/satisfied" to "Very unfair/unsatisfied," and we combine the three measures into a single index of perceived fairness.<sup>7</sup> We selected these measures for two reasons. First, they measure more proximate short term evaluations similar to process preferences or procedural justice. Since our manipulation involves a hypothetical decision in a community that is not actually the subjects' own, we would not expect the treatment to affect their evaluations of their own elected officials or legitimacy of government in general. Instead, a measure more akin to specific support is warranted. Second, these variables do not measure satisfaction with the actual policy outcome—they are measures of process preferences rather than policy

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<sup>5</sup> All data and replication code for this paper can be accessed at <http://dx.doi.org/10.7910/DVN/JWXMFE>.

<sup>6</sup> There were 23 respondents who self-identified as "Mixed Race," but they were not required to identify what combination of races they identify as. These respondents were excluded from analysis.

<sup>7</sup> These three measures are all highly correlated and the index has a standardized  $\alpha$  of 0.89 for Study 1, 0.86 for Study 2, and 0.91 for study 3. The index was re-scaled to run from 0 (least fair) to 1 (most fair). Descriptive statistics on the dependent variables can be found in the Appendix (Supplementary material). The substantive results are unchanged when we run the analyses on each dependent variable separately.

**Table 1** Number of observations by treatment (black respondents in parentheses)

Number of black representatives	Substantive outcome		Totals
	Black neighborhood	White neighborhood	
2	N = 149 (14)	N = 146 (18)	N = 295 (32)
5	N = 153 (13)	N = 142 (10)	N = 295 (23)
10	N = 132 (19)	N = 143 (15)	N = 275 (34)
Totals	N = 434 (46)	N = 431 (43)	N = 865 (89)

Source: CCAP (2012)

preferences. This should help us isolate feelings of symbolic representation from feelings of substantive representation.

## Results and Discussion

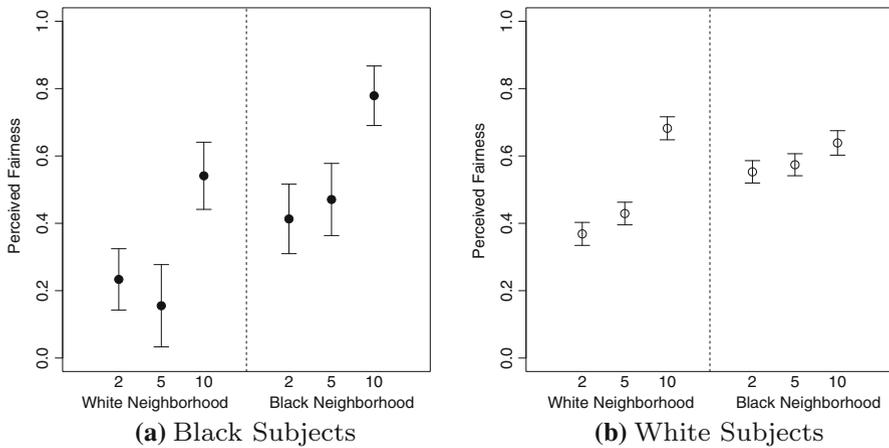
To determine white and black citizens' preferences for representation, we interacted indicator variables capturing each subjects' assignment to levels of descriptive representation with their assignment to substantive outcome as well as with an indicator for race.<sup>8</sup> The predicted levels of perceived fairness for black and white respondents are shown in Fig. 1a and b, respectively. The filled points are for subjects assigned to an outcome that substantively favored blacks, and the empty points are for subjects assigned to an outcome that substantively favored whites.<sup>9</sup>

The effects of descriptive representation are most pronounced for black respondents. When the level of black descriptive representation is only 10 %, black respondents' average perceptions of fairness and satisfaction fall below the halfway mark, indicating that on average black respondents will find the decision making unfair and will be dissatisfied with the composition, even when the decision favors blacks. This suggests that descriptive representation is important to black respondents independent of whether the decision is favorable or unfavorable.

When descriptive representation is at parity (50 % black), satisfaction and perceptions of fairness increase drastically. This suggests that the biggest advantages for descriptive representation do not kick in until blacks are well above

<sup>8</sup> Since subjects are randomly assigned to conditions and we have good balance on demographic items across treatment conditions, we are not particularly concerned about potential confounds. To investigate other possible predictors of perceptions of fairness, we also re-ran the results adjusting for several demographic and political covariates. Higher levels of education were associated with higher perceptions of fairness. Being female, black, and possessing a more liberal ideology were associated with lower perceptions of fairness.

<sup>9</sup> Due to the relatively small number of African Americans in our sample, we report 90 % confidence intervals throughout for both white and black subjects. Given the strikingly similar results we find in each of our studies, we are confident that our results are not a statistical artifact due to the relatively small number of African Americans in any one sample. Across all of our samples, the total number of African Americans is 287.



**Fig. 1** Effects of descriptive representation and substantive outcomes for *black* and *white* subjects. Source: CCAP (2012)

their proportion in the national population. Although this result does suggest that descriptive representation can matter, it appears to take much higher levels of descriptive representation than scholars or policymakers have predicted or argued for, at least on this issue. Interestingly, whites appear willing to accept such high levels of black descriptive representation and do not negatively evaluate decisions reached when blacks are present in higher numbers than their population proportion.

For white respondents, we see an interaction effect between high levels of descriptive representation and the substantive outcome of the decision. When the decision favored blacks, levels of descriptive representation were essentially inconsequential. However, when the decision favors the white neighborhood, levels of black descriptive representation have a large effect on perceptions of fairness and satisfaction with the composition of the committee. When levels of black descriptive representation are high, perceptions of fairness and satisfaction are comparable regardless of the actual decision.

We cannot directly test the mechanism leading white respondents to respond more favorably to higher black descriptive representation, but a number of explanations seem plausible. First, white subjects might be responding to social desirability bias and over-reporting their satisfaction with the presence of black decision-makers. Second, white subjects could be expressing a commitment to egalitarian principles by being more supportive of a decision-making process in which all interested parties have a voice. Third, the presence of black decision-makers could serve to legitimize a decision that white respondents suspect is unfavorable to blacks. Since we do not have a means to follow up on the rationale behind white respondents' responses, we cannot adjudicate between these competing mechanisms.

It is also interesting to note that white subjects' evaluations tended to be higher when the substantive outcome favored blacks. This indicates that the preferred

outcome might *not* be what would be in the hypothetical best interest of whites. Rather, both whites and blacks respond more favorably to a substantive outcome in which a new school will be built in a predominantly black neighborhood.

## Study Two

The results from our first study support the idea that descriptive representation can compensate for a substantively unfavorable outcome for African Americans. But this study raises many additional questions that warrant further study. First, both black and white subjects appeared to favor the outcome that benefited the black neighborhood. As such, blacks' and whites' substantive interests did not appear to be in conflict. Would a similar pattern emerge if the issue was more contentious, especially along racial lines? Second, although high levels of descriptive representation did compensate for an unfavorable substantive outcome for blacks, it required equal representation for blacks and whites, an outcome rarely seen in actual politics outside of localities that are majority black. Is there some threshold above which descriptive representation causes a decision to be viewed as fair, regardless of the decision's direction?

We cannot address these two questions with the 2012 CCAP data. Instead, we turn to Mechanical Turk (MTurk) as a means of extending our original analysis.<sup>10</sup> In order to be confident that any results from our extensions are not due to the different source of subjects, we first replicated our initial findings from Study One using MTurk. Full results for this replication can be found in the appendix (Supplementary material). Given the strong concordance between our findings from CCAP and MTurk, we feel confident that we can derive useful implications using an MTurk sample.

Our second study investigates whether the positive effects of black descriptive representation are isolated to a fairly consensual issue domain (the location of a new school), or also generalize to contentious issues. Since our study is designed to investigate how both whites and blacks make tradeoffs about representation, it is important to have a policy outcome on which whites and blacks disagree. After all, when blacks' policy interests align with the majority, there is little concern about issues of substantive and descriptive representation. For this reason, Study Two uses a vignette designed to create a high level of divergence between white and black subjects.

## Method

For Study Two, we recruited 1000 experimental subjects using MTurk. This MTurk sample was younger, more male, and more racially homogeneous than the nationally representative sample used in Study One.<sup>11</sup> Excluding those who did not

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<sup>10</sup> Amazon's Mechanical Turk is an online system through which workers can complete short tasks for compensation. It has received increasing attention as a source of subjects for social science researchers. For a discussion of the representativeness and validity of MTurk as a data source, see Buhrmester et al. (2011) and Berinsky et al. (2012).

<sup>11</sup> See appendix (Supplementary material) for detailed comparison of CCAP and MTurk data.

self identify as either white or black reduced the total number of observations to 860. Table 2 shows the number of observations per treatment group.

Since there appeared to be a mutual preference for an outcome favoring blacks in Study One, we implement a similar design but change the policy domain used in the vignette. One policy domain in which blacks and whites tend to diverge is affirmative action. While blacks tend to be overwhelmingly in favor of affirmative action in hiring and education, whites (especially conservative whites) tend to be opposed. For this reason we implemented the following vignette:

Suppose a community's local government has a committee consisting of 20 registered voters and public officials. The purpose of the committee is to identify ways to improve the quality of the local police department.

The committee is considering two plans for how to improve the quality of the police department. Plan A would involve implementing an affirmative action program to boost the numbers of African American applicants to the police department. Proponents of this plan argue that it will make the police department more representative of the community it serves.

Plan B would involve implementing stricter testing of applicants to the police department. These tests would be aimed at making sure only those applicants who score very highly would be hired by the police department. Proponents of this plan argue that it would increase the overall quality of the police department by making sure only those with the most skill are hired.

This committee consisting of [18/15/10] white members and [2/5/10] black members has been holding hearings through the community and just announced its decision: the police department should pursue [Plan A the affirmative action plan/Plan B the testing plan] to improve the quality of the local police force.

As in Study One, subjects are randomly assigned to both a level of black collective descriptive representation and a substantive outcome that is either favorable to blacks or ostensibly race-neutral. The level of descriptive representation is either 10, 25, or 50 %, and the substantive outcome is either an affirmative action plan (favorable to blacks) or a testing plan (race-neutral).

**Table 2** Number of observations by treatment (black respondents in parentheses)

Number of black representatives	Substantive outcome		Total
	Affirmative action plan	Testing plan	
2	N = 142 (8)	N = 140 (7)	N = 282 (15)
5	N = 156 (15)	N = 127 (14)	N = 283 (29)
10	N = 151 (14)	N = 136 (9)	N = 287 (23)
Total	N = 449 (37)	N = 403 (30)	N = 852 (67)

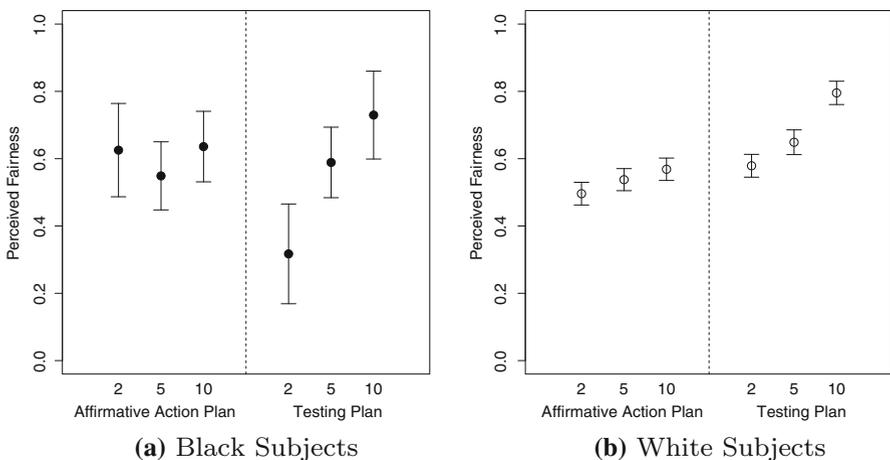
Source: MTurk (2013)

**Results and Discussion**

Figure 2a presents the predicted levels of perceived fairness for blacks based on a regression with indicator variables for treatment assignment and race with confidence intervals. As one would expect given demographic differences in support for affirmative action, black subjects' support for affirmative action decisions is generally higher than white subjects'. But as we saw in Study One, high levels of black descriptive representation cause black perceptions of fairness to converge regardless of substantive outcome.

When descriptive representation is low, there is an extremely large gap between evaluations based on whether the outcome favored blacks or whites. With only 2 black members of the decision-making body, a substantively unfavorable outcome results in predicted perceived fairness of only 0.32 on the scale from 0 to 1. At the same level of descriptive representation, a substantively favorable outcome increases perceptions of fairness to 0.63. The fairness gap of 0.31 suggests that in the absence of high descriptive representation, blacks' perceptions of fairness will be determined primarily by whether the outcome is favorable or unfavorable to the group.

At higher levels of descriptive representation, however, blacks' evaluations converge such that there is minimal difference between substantive outcomes. When 5 or 10 blacks served on the decision-making body (corresponding to 25 and 50 % descriptive representation), blacks' perceived fairness is statistically indistinguishable when the outcome is favorable versus not. With 5 blacks on the committee, predicted perceived fairness is 0.59 when the outcome is unfavorable and 0.55 when the outcome is favorable. As you can see from Fig. 2a, these point estimates are clearly within one another's 90 % confidence interval. These estimates



**Fig. 2** Effects of descriptive and substantive representation on perceptions of fairness for *black* and *white* subjects. Affirmative action treatment Source: MTurk (2013)

are also statistically indistinguishable from black subjects' perceived fairness when descriptive representation is low and the substantive outcome is favorable.

Figure 2b shows the effects for whites. As expected given national patterns in support for affirmative action, at every level of descriptive representation whites perceive decisions implementing affirmative action as less fair than those that are not favorable to blacks. This suggests that whites do indeed prefer an outcome that is not favorable to blacks.

There still appears to be a strong positive effect for black descriptive representation for white subjects. For both substantive outcomes, whites' perceived fairness increases as black collective descriptive representation increases. Moreover, this positive effect of descriptive representation interacts with the substantive outcome. Whites' higher perceptions of fairness when the decision is not favorable to blacks is augmented when blacks receive high levels of descriptive representation. When there are only 2 blacks present on the decision-making body, white perceived fairness averages 0.58 when the decision is unfavorable to blacks. As the number of blacks on the body increases to 5 and 10, white perceptions of fairness increase to 0.65 and 0.80, respectively. This increase of 0.22 from lowest to highest black descriptive representation dwarfs the increase seen when the decision is favorable to blacks (an increase of 0.07, from 0.50 to 0.57). This suggests that black descriptive representation might serve to legitimize whites' preferred policy outcome.

Our findings are important in two respects. First, they lend further support to the finding that descriptive representation is an important part of blacks' evaluation of the legitimacy and fairness of decision-making. At low levels of descriptive representation, blacks are unwilling to look favorably on outcomes with which they disagree. At higher levels of descriptive representation, even decisions that go against blacks' preferences are evaluated positively, on average.

Second, our findings suggest that the level of descriptive representation necessary to achieve positive evaluations of decision-making might be conditional on the issue. In Study One, we find that only very high levels (i.e., 50 %) of descriptive representation can overcome substantively unfavorable outcomes. But in Study Two we find the same effect when black descriptive representation is at 25 or at 50 %. This raises an additional question about where the cutoff for black descriptive representation might be in order for it to have a positive effect on black subjects' perceptions of fairness and how that cutoff might vary based on the substantive issue.

### Study Three

Studies One and Two demonstrate that blacks have clear preferences about representation. Blacks have clear preferences for substantively favorable outcomes for their group (building a new school in a predominantly black neighborhood and implementing an affirmative action plan), and high levels of descriptive representation can compensate for receiving substantively unfavorable outcomes. What is not clear from Studies One and Two, however, is what level of descriptive

representation is necessary for blacks to perceive the decision-making process as fair. In Study One, blacks perceived unfavorable outcomes to be fair only when descriptive representation was very high (10 out of 20, or 50 % of the committee). In Study Two, this result occurred with a lower level of black descriptive representation (5 out of 20, or 25 %). But in both of these cases, this level of collective descriptive representation is far above blacks' proportion in the national population. Even those who advocate for embracing descriptive representation argue that representation should be close to proportional (see Guinier 1995; Mansbridge 1999), which for blacks would imply a 12–13 % collective representation rate at the national level. Would such a rate of descriptive representation indeed cause blacks to perceive decisions as fair, regardless of the substantive outcome? Or is the level of representation necessary even higher than proportionality?

**Method**

Study Three investigates these questions by replicating Study Two's vignette with additional levels of black descriptive representation. To facilitate identification of any threshold or critical mass effects, Study Three only uses treatment conditions in which the substantive outcome favored whites (i.e., implementing a testing plan). This helps isolate the effect of descriptive representation by focusing only on its ability to compensate for unfavorable outcomes, and also aids our statistical power by reducing the number of treatment conditions.

For this study, we again turn to MTurk for experimental subjects. We recruited a total of 800 subjects assigned to four treatment conditions. As before, we excluded from analysis any worker who did not self-identify as white or African-American/black. This results in a total N of 687 subjects across our four levels of black descriptive representation, identified in Table 3.

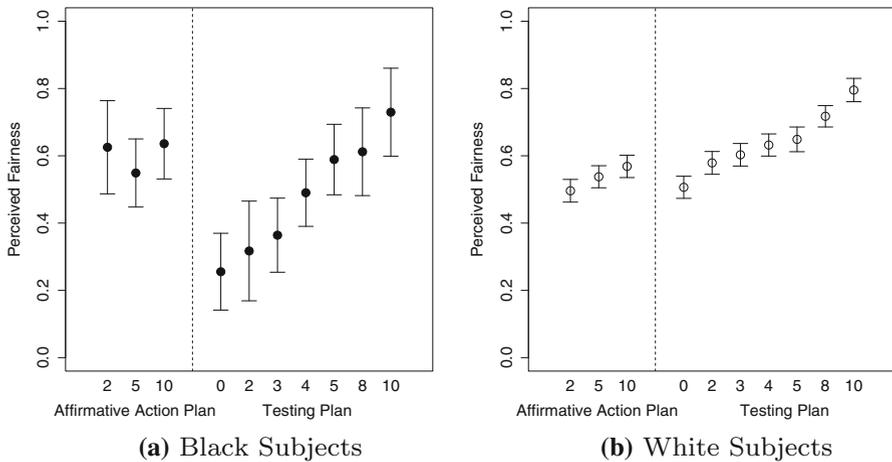
**Results and Discussion**

Figure 3a shows the results of Study Three alongside those of Study Two. Of critical importance for this study is at what level of descriptive representation do blacks perceive the decision-making process to be fair. In Study Two, we found that black perceptions of fairness based on outcome were statistically indistinguishable when descriptive representation was at 20 or 50 %, but there was a fairness gap

**Table 3** Number of observations by treatment (black respondents in parentheses)

Number of black representatives	Substantive outcome Testing plan
0	N = 170 (13)
3	N = 165 (14)
4	N = 174 (17)
8	N = 177 (10)
Total	N = 686 (54)

Source: MTurk (2014)



**Fig. 3** Effects of descriptive and substantive representation on perceptions of fairness for *black* and *white* subjects. Affirmative action treatment Source: MTurk (2013 and 2014)

when descriptive representation was only 10 %. At what point do black perceptions of fairness become positive, on balance? And at what level of descriptive representation do blacks evaluate an unfavorable decision as equally fair as a favorable decision?

The answer to the first question appears to be when descriptive representation is above proportional to African Americans’ share of the national population. When three blacks are present on the decision-making body (equating to 15 % descriptive representation), the predicted level of perceived fairness is 0.36. This suggests that even if representation proportional to the national population were achieved, black perceptions of fairness would still depend on whether the substantive outcome was favorable or unfavorable. It is not until blacks make up 4 out of 20 (20 %) of the committee that black subjects viewed the decision-making process as neither fair nor unfair with a predicted perceived fairness of 0.49.

At what point does descriptive representation cause subjects to view the decision-making process as equally fair, regardless of outcome? The lowest predicted perceived fairness for a substantively favorable outcome (from Study Two) was 0.55. For substantively unfavorable outcomes, we do not observe a predicted perceived fairness at least that high until descriptive representation reaches 25 % (0.59, also from Study Two). However, 0.55 falls within the 90 % confidence interval for black descriptive representation of four or more. Either interpretation yields the same conclusion. Descriptive representation can mitigate negative evaluations of fairness when decisions are unfavorable, but only when black descriptive representation is quite high (at least 20 % or more).

Figure 3b shows the results for whites. As in Study Two, whites perceive the testing plan outcome to be more fair than the affirmative action plan, and perceptions of fairness increase monotonically as the number of blacks on the committee increases. Two things are noteworthy here. First, the positive effect of

black descriptive representation seems to be greatest when the outcome is substantively unfavorable to blacks. This could indicate that high descriptive representation legitimizes unfavorable decisions in the eyes of white subjects. Second, in the absence of black descriptive representation, the substantively favorable outcome for whites is not evaluated any higher than a substantively unfavorable outcome. This suggests that process preferences are indeed important to whites; in the absence of diversity, outcomes that are unfavorable to blacks become much less palatable to white subjects.

## Discussion

The studies we present here make several contributions to the literature on representation. We shed new light on how both majority and minority group members evaluate descriptive and substantive representation. By using an experimental design that allows us to separate the effects of descriptive and substantive representation, we can identify which of these often related aspects of representation can heighten symbolic representation for both black and white constituents.

Can descriptive representation compensate for failing to realize one's preferred policy? The short answer is yes. Our results indicate that high levels of black descriptive representation can increase evaluations of fairness and satisfaction with a decision-making process, even when the outcome of that process is not substantively preferred. This suggests that descriptive representation can play a role in directly improving symbolic representation, and lends credence to concerns about ensuring adequate descriptive representation of African Americans.

A major caveat to the benefits of descriptive representation is in order. Many scholars have argued just what we have found; that to make decision-making more legitimate in the eyes of minorities and other disadvantaged groups, we should ensure that those groups have a fair say in the decision-making process. Such scholars have called for a movement toward descriptive representation approaching proportionality. For example when discussing the benefits of descriptive representation to deliberation, Mansbridge (1999) writes “[s]eeing proportional numbers of members of their group exercising the responsibility of ruling with full status in the legislature can enhance de facto legitimacy by making citizens, and particularly members of historically underrepresented groups, feel as if they themselves were present in the deliberations.” When the benefits of descriptive representation are discussed, they are often evaluated in terms of what would be proportional, something shared by both scholars and policy-makers.

But our results suggest that even proportional descriptive representation may not maximize perceptions of the fairness and legitimacy of government outcomes. It is not until black collective representation is *above* proportional that blacks perceive unfavorable outcomes as, on balance, fair. In our studies, once black descriptive representation reached 20 % or more, black subjects' evaluations were effectively similar regardless of the substantive outcome. But normative concerns about over-representation aside, given that the U.S. national average percent black is 13 % (and

the percentage of black government officials is significantly lower), achieving such high representation appears unlikely.

We have two interesting findings for white subjects. First, white subjects' perceptions of fairness were not harmed by higher black descriptive representation. This suggests that white citizens might be amenable to efforts to boost black collective representation, although this might not be true at the dyadic level. Second, when white and black subjects' substantive preferences diverge, as was the case in the affirmative action experiment, higher black descriptive representation actually boosted white subjects' evaluations of the process.

It is not immediately clear how to interpret this finding. A cynic might suggest that white subjects preferred higher black representation because it serves to legitimize outcomes that go against the substantive interests of blacks. An optimist might suggest that the symbolic representation of both whites and blacks can be enhanced when decision-making bodies are more descriptively represented of the nation at large due to a sincere commitment to egalitarian norms. Resolving these two competing explanations is beyond the scope of the current work. Future research could investigate the reasons for white support of black descriptive representation. If it is, indeed, a sincere commitment to egalitarian norms, then we should only see such an effect for those who espouse such norms. Moreover, we should see a similar concern for stakeholders having equal voice regardless of if the issue is about race or within some other policy domain.

Our findings have several important implications for designers of institutions. First, it appears that black descriptive representation is, indeed, something that is valued by blacks (and, in a more limited sense, by whites) independent of substantive representation. This is an important finding because it suggests that efforts to improve descriptive representation, even when they may reduce blacks' substantive representation, can improve overall perceptions of legitimacy and satisfaction with decision making. What is more, whites appear willing to accept higher levels of descriptive representation. Unlike some studies that have found negative consequences for whites when blacks are descriptively represented, our research finds no such effect. Taken together, these findings suggest that there is indeed a role for descriptive representation to play in maximizing satisfaction with government decision making.

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