ASYMMETRICAL PERCEPTIONS OF GROUP-BASED EMPLOYMENT DISPARITIES: DIFFERENCES IN SUBJECTIVE EVALUATIONS OF ADVANTAGE-BASED AND DISADVANTAGE-BASED DISCRIMINATION

DISSERTATION

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By

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ABSTRACT

Five studies examined the hypothesis that employment disparities framed as disproportionate advantages in workplace outcomes are judged less discriminatory than disparities framed as disproportionate disadvantages. Disadvantage-based disparities are defined by disproportionate losses suffered by a non-favored employee group while the favored employee group receives an expected level of losses. Advantage-based disparities are defined by disproportionate gains received by a favored employee group while the non-favored employee group receives an expected level of gains. Even though both types of disparities can be objectively the same size, prospect theory would predict that disproportionate gains are subjectively experienced as less severe than disproportionate losses. Studies 1-3 are preliminary tests of this hypothesis, using female employees as the non-favored group (Studies 1 and 2), African American employees as the non-favored group (Study 3), and using two separate employment contexts (Study 2).

Chapter 3 introduces a two-step cognitive model to explain the results. According to the model, more attention and deliberation are necessary to recognize advantage-based discrimination, and any moderator that increases observers’ attention or sensitivity to advantage-based disparities will reduce or eliminate the framing effect found in Studies 1-3. Two such moderators, ingroup relevance and workplace outcome valence, are tested in Studies 4 and 5, respectively. Results indicate that while ingroup relevance does not
moderate the framing effect, using negatively valenced outcomes (rather than positively valenced outcomes) significantly moderates the framing effect. Results are discussed in terms of their implications for the two-step model and applications to business and law.
For my parents
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CHAPTER 1

INTRODUCTION

In 2005, a class-action lawsuit was filed against Wal-Mart by a group of current and former female employees claiming sex-based employment discrimination. According to these women, compared to industry standards Wal-Mart systematically underpaid its female employees and shunted them into lower-status positions, while male employees were overrepresented in managerial positions. Many observers believe the plaintiffs’ case is strong and expect Wal-Mart to settle, perhaps because this case easily fits our prototype of employment discrimination: negative treatment of a disadvantaged group.

Consider a second, less prototypical example: from 1951 to 1976, Black police officers in Georgia were eligible for the state’s existing pension plan, but only White officers qualified for a “supplemental” pension plan that provided an additional $710 per month. Legislation has been introduced to redress this inequality, but it is notable that no legal action has been pursued. What if workplace discrepancies like this arise as the result of objectively neutral, “by the book” treatment of some employees and disproportionate advantage of other employees? Is this form of discrimination more difficult to recognize, prove, or prevent? Evidence from social science indicates that this advantage-based discrimination is more common in modern life than the first kind of disadvantage-based
discrimination. Yet employers, lawmakers, and laypeople are largely unaware of this form of discrimination. What accounts for this oversight?

I will test the hypothesis that such advantage-based discrimination is more difficult to detect than disadvantage-based discrimination in a series of studies presenting hypothetical cases of employment disparities involving a favored group (such as men or Whites) and a non-favored group (such as women or minorities). I will seek to demonstrate that “discrimination,” as perceived by lawmakers and laypeople, does not encompass undue advantages bestowed on a favored group, but rather entails only blatant disadvantage meted out to a non-favored group.

*Discrimination in law and in the laboratory*

To understand how social discrimination is defined by law and policy makers requires a foray into legal and organizational management scholarship. Title VII of the landmark Civil Rights Act of 1964 states that it is unlawful for an employer “to fail or refuse to hire or discharge…or otherwise discriminate *against* any individual” due to race, religion, sex, etc. (emphasis added). Implicit in this language is the assumption that discrimination occurs as the result of denying access or resources to non-favored employees because of their membership in a particular social group. In the context of the 1960s, it is understandable that blatant, intentionally negative treatment motivated by antipathy would be the prototype of the kind of discrimination Title VII sought to outlaw. Since the Civil Rights Act was passed, the Supreme Court has expanded its interpretation to prohibit the practice of using technically neutral employment practices to systematically deny opportunities to certain groups in the workplace (termed “disparate impact” discrimination; *Griggs v. Duke Power*, 1971).
In the decades following the Civil Rights era, the norms of U.S. society have evolved to prohibit the overt expression of animus towards social groups per se, and the face of discrimination changed to accommodate these new norms. Old-fashioned, overt racism was replaced by modern racism: opposition to policies designed to help disadvantaged groups and assertions that such special treatment was no longer needed, rather than direct derogation of such groups (McConahay, 1986). Another subtle form of racism emerged: aversive racism (Gaertner & Dovidio, 1986; Saucier, Miller, & Doucet, 2005). Whites assiduously avoid overt expressions of prejudice towards blacks but are comfortable with providing help or resources to fellow whites because the racial basis for this favorable treatment is hidden.

Such manifestations of intergroup prejudice are consistent with theorizing about the foundations of intergroup conflict. Prejudiced attitudes and behaviors might often appear to be the result of negative attitudes towards outgroups, but the motivation for prejudice is rooted in favoritism and positive feelings for one’s ingroup (Brewer, 1999; Brewer and Brown, 1998). Negativity toward an outgroup may be a frequent byproduct of ingroup favoritism, but it need not be, and ingroup favoritism can exist even in the absence of an identifiable outgroup (Brewer, 1999). As further evidence of the primacy of ingroup favoritism, positivity toward an ingroup is an automatic response, as revealed in response-time paradigms designed to uncover automatic processes, while negativity toward an outgroup is not necessarily automatic (Otten, & Wentura, 1999; Perdue, Dovidio, Gurtman, & Tyler, 1990). Prejudice and discrimination are rooted in preference for a particular group rather than negativity against a particular group. It is difficult for most people to conceive of discrimination in this way because, from a neutral
perspective, it can often be difficult to determine whether an action that is ultimately
discriminatory was primarily a function of ingroup favoritism, outgroup hostility, or both.
Moreover, outgroup hostility is so often a consequence of ingroup favoritism that both
have become inextricably linked in our definitions of prejudice.

Nonetheless, these different forms of prejudice have been disentangled in the
laboratory. Aversive racism theory describes a modern form of discrimination in which
overt racism is not evident in contexts where behavior can be unambiguously attributed
to racist motivations. However, in attributionally ambiguous contexts, positive behavior
such as assistance or intimacy may be withheld from targets of another race because
alternative, non-racial explanations for such behavior are available (Gaertner & Dovidio,
1986). A meta-analysis of helping behavior towards Blacks and Whites (Saucier, et al.,
2005) found that White subjects were more likely to help White targets than Black targets
when the situation is structured to provide rationalizations for withholding help such as
risk, time commitment, amount of effort required, and the difficulty of providing help.
Because aversive racism theory holds that Whites are committed to ideals of
egalitarianism, they will not withhold help when doing so would be interpreted as
unambiguously racist. However, Whites’ underlying (and perhaps unconscious) sense of
discomform or fear around Blacks leads them to favor their fellow Whites when rendering
assistance as long as the structure of the situation provides a non-racial justification for
withholding help from Blacks.

Mum mendey and her colleagues (see Mum mendey & Otten, 1998) present further
evidence of the primacy of ingroup favoritism by comparing ingroup/outgroup
allocations of two different types of resources in a minimal group paradigm: rewards
such as money or tokens, or unpleasant resources such as noise or tedious tasks. The result is a “positive-negative asymmetry” in social discrimination; when negative resources must be allocated, ingroup favoritism is reduced and a parity rule is followed in which ingroup members and outgroup members are allocated equivalent levels of negative resources (outgroup members are not allocated more negative resources than the ingroup, as might be expected). However, when positive resources are being allocated ingroup favoritism is much more likely to occur, and participants freely distribute rewards disproportionately to other ingroup members (Blanz, Mummendey, & Otten, 1995; Otten, Mummendey, & Blanz, 1996; Mummendey, Otten, Berger, & Kessler, 2000). Furthermore, ingroup favoritism is normatively sanctioned when positive resources are involved, but not with negative resources (Blanz, Mummendey, & Otten, 1997). The positive-negative asymmetry suggests that ingroup favoritism is much more likely to be expressed via biased allocation of positive resources rather than negative resources.

The problem is that legal statutes, public policy, and public perception have not caught up to the evolution of discrimination. As the research on aversive racism demonstrates, discrimination motivated by overt derogation of another group is unlikely to occur in modern society. Nonetheless, the laws as written still focus on the motivations of “bad actors” in discrimination scenarios. In fact, in recent years courts have ever more strictly interpreted Title VII as a prohibition of intentional discrimination based on race, sex, or any other historically disadvantaged social category. Termination of employment or refusal to promote based on any reason other than outright discrimination is not outlawed by Title VII (McGinley, 1997). For example, in Foster v. Dalton (1995) a
qualified Black female applicant for a new position (Foster) was passed over in favor of a white male who was a close friend of the director in charge of the hiring process. Foster sued her employer, claiming a violation of her rights under Title VII. Her case was rejected on appeal because, while clearly a case of cronyism, the defendant had not acted out of any animus against the plaintiff, only favoritism towards another candidate (McGinley, 1997). Simply put, “discrimination is illegal, while cronyism is not” (McGinley, 1997, cited in DiTomaso, et al., 2005).

The Foster case is an obvious demonstration of ingroup advantage in the absence of outgroup disadvantage. But in many instances, it is probably much more difficult to ascertain the source of the discriminatory outcome. A salary gap between male and female employees may be the result of a systematic plan to divert women to lower-profile, less profitable projects, or it may be the result of males receiving more latitude in the workplace and having access to a better informal network of clients and colleagues. Just as aversive racism theory focuses on opportunities to discriminate provided by the structure of the situation, opportunities for modern discrimination may depend less on motivation than on the structure of the working world. Petersen and Saporta (2004) describe three types of employment discrimination: within-job wage discrimination, valuative discrimination, and allocative discrimination. Within-job wage discrimination is clearly outlawed by Title VII, and it is rarely practiced any more. Valuative discrimination describes a situation in which, for example, male-dominated jobs provide higher wages than female-dominated jobs because they are assigned a subjectively higher value. Valuative discrimination is a prevalent form of employment discrimination
because it can be justified by market processes that operate without discriminatory intent (as legally defined).

The third type of discrimination, allocative discrimination, is characterized by differential allocation of men and women to occupations and establishments that differ in the wages paid, as well as discrimination in the matching process at the point of hire, in subsequent promotions, and dismissals (Petersen & Saporta, 2004). This type of discrimination is least understood and the most difficult to detect. If an employer’s recruiting strategy relies on social networking and word-of-mouth, women or minorities may unknowingly be disadvantaged because they are never considered as candidates (the Foster case is a notable exception). Similarly, a job candidate who is not hired will probably never know the qualifications (both objective and subjective) of the person who was hired, as well as the qualifications of those not hired. At the hiring stage, offers to and placements of new employees are made without the benefit of data about the employee’s past performance, and thus such offers can be justifiably influenced by subjective considerations (Petersen & Saporta, 2004).

At each stage of the hiring process, allocative discrimination can arise as the result of special privileges granted to one group (i.e., using the “old boys network” to learn of new job opportunities) while another group is never intentionally discriminated against. From the perspective of a non-favored group, the absence of advantage is difficult, if not impossible, to notice and document. What makes this form of discrimination more insidious is that once in place, it may be perpetuated by the reward structure that already exists in most employment settings. That is, those who receive favorable treatment on the job are rewarded for having demonstrated advanced
competence and skill, but those very achievements may themselves be products of favorable treatment to begin with. As a result, those who do not receive as much favorable treatment are likely to believe that the disparity is the result of legitimate reward structures, not group-based differences in opportunities. In sum, what may seem like discrimination to an impartial observer is invisible to the very targets of this discrimination.

*Advantage-based and disadvantage-based discrimination*

Victims of discrimination due to intentional deprivation in the workplace can gather evidence more easily and have clear legal recourse under the Civil Rights Act. Victims of discrimination due to favoritism towards another group may not even be aware that discrimination has occurred, precisely because nothing has been done to them. Despite the equally damaging effects of favoritism-based discrimination, under current law victims have little legal recourse, as an employer can successfully argue that discriminatory intent is absent. Why have law and policy makers not recognized this subtle form of discrimination? It may be because such advantage-based discrimination is as invisible to outside observers as it is to its victims and beneficiaries. Is this subtle form of discrimination even more camouflaged than we might think?

I hypothesize that instances of advantage-based disparities (disparate outcomes based on favoritism toward the favored group and neutral treatment of the non-favored group) will be perceived as less discriminatory than instances of disadvantage-based disparities (disparate outcomes based on neutral treatment of the favored group and deprivation of a non-favored group), even when the objective degree of the disparity is held constant. Disadvantage-based discrimination against a non-favored group is literally
more “visible” because it entails the loss of something (money, status, power) that a favored group already has. However, advantage-based discrimination entails disproportionately favorable treatment of one group and neutral treatment of the non-favored group. In other words, the absence of something (money, status, power) defines advantage-based discrimination. This distinction is parallel to the illusion of the endowment effect in prospect theory, in which people are more sensitive to the experience of losing something they have (or should have) than to the withholding of something that they have never had (Kahneman & Tversky, 1979).

Following the logic of the endowment effect, the “invisibility” of advantage-based discrimination should be attenuated if it is obvious to observers what the non-favored group is missing by receiving merely neutral treatment. However, I hypothesize that even when advantage-based disparities are obviously quantifiable (in terms of the above-average amount of money or power granted to a favored group), it will be perceived as less discriminatory than disadvantage-based disparities of an identical magnitude (below-average money or power granted to a non-favored group).

This hypothesis could be found if advantage-based disparities and disadvantage-based disparities are conceptualized as two different ways to frame the same objective outcome. According to the loss-aversion principle of prospect theory (Kahneman & Tversky, 1979), losses are experienced more intensely than gains of similar objective magnitude. In the current context, disadvantage-based discrimination describes outcomes in the domain of losses; employees belonging to non-favored groups are denied jobs or promotions more often than would be expected. Advantage-based discrimination, on the other hand, describes outcomes in the domain of gains; employees belonging to favored
groups are hired, promoted, or otherwise “boosted” more often than would be expected, while the non-favored group receives objectively neutral treatment. Discrimination is prototypically defined within the domain of losses, and perhaps those seeking evidence of discrimination will search only for evidence of disproportionate losses rather than disproportionate gains. As a result, discrimination framed in the domain of gains seems subjectively less severe or problematic.

*Overview of preliminary studies*

In a set of three preliminary studies, the same disparate outcome in a given workplace is framed as either an advantage-based disparity or a disadvantage-based disparity. The disparity in workplace outcomes (specifically, promotion rates) between male and female employees (Studies 1 and 2) and White and African-American employees (Study 3) is quantifiably identical across both types of disparities. To manipulate type of disparity, the reference point for the promotion outcomes is altered. To describe disadvantage-based disparities, *failure* to receive a promotion is established as the metric used to measure discrimination. Females (Studies 1 and 2) or African-Americans (Study 3) are obviously denied promotions more often than an objective standard would dictate, while males or Whites are denied promotions at rates consistent with an objective standard. In this sense, disadvantage-based disparity is framed as greater losses of the non-favored group than what would be expected, a discrepancy representative of most lay perceptions of discrimination.

To describe advantage-based discrimination, promotions *received* is the metric used to measure discrimination. Males (Studies 1 and 2) or Whites (Study 3) are obviously promoted more often than an objective standard would predict, while females
or African-Americans are promoted at rates consistent with an objective standard. In this sense, advantage-based disparity is framed as greater gains of the favored group than would be expected. The non-favored group is receiving standard, “by the book” treatment, while the favored group profits from a higher than average level of success.

After reading about these disparate outcomes in the hypothetical context of a pending employment discrimination lawsuit, participants are asked to rate the extent to which they believe discrimination has occurred, the strength of the plaintiff’s case for discrimination, how fair the situation is, and how likely it is that the plaintiff will be successful at a future trial. Study 1 is an initial test of the hypothesis that advantage-based disparities are subjectively evaluated as less discriminatory and more fair than equivalent disadvantage-based disparities. Studies 2 and 3 are replications of the results found in Study 1 and include manipulations of employment context and type of favored/non-favored employee group to test the robustness of the patterns found in Study 1.
CHAPTER 2

ASYMMETRICAL DISCRIMINATION: THREE REPLICATIONS

It might be the case that the face of discrimination has changed since 1964, when Title VII of the Civil Rights Act forbade discrimination against people based on race, sex, religion, and other protected groups. The prototype of a discriminatory situation and the reality of discrimination at the time were well-matched; the designated groups were clearly at a salary or benefits disadvantage compared to a favored group, or may have been required to perform undesirable duties and work longer hours. In the 21st century, group-based disparities in employment outcomes obviously still exist, but such disparities may be the result not of discrimination against a non-favored group, but rather discrimination in favor of another group. The targets of this advantage-based discrimination may often be unaware of their status, as they are not being deprived of anything they are entitled to. Instead, they are not receiving benefits given to the favored group, and that “something” is, by its absence, not detected as evidence of discrimination.

But suppose that a third party is provided with all relevant data about the differential outcomes experienced by one group versus the other in a given workplace. It would seem that the disparity, whether created by disadvantage of the non-favored group or advantage to the favored group, would be a straightforward case of discrimination if outcomes of similarly qualified individuals vary based only on racial or sexual group
membership. However, based on predictions derived in part from principles of prospect theory, I hypothesize that \textit{advantage-based disparities in employment outcomes will be judged less discriminatory than disadvantage-based disparities of equal magnitude}. The loss aversion principle of prospect theory holds that losses are experienced more intensely than gains of a similar magnitude. Reconceptualizing disadvantage-based disparities as “losses” and advantage-based disparities as “gains” in prospect theory parlance allows for a parallel prediction to be made regarding these two types of discrimination.

This prediction is bolstered by the likelihood that prototypes of discrimination exist as lay theories, and only disadvantage-based discrimination closely matches the “typical” case of discrimination. In a workplace context where all employees should be equally capable of success, observers are well-practiced at being vigilant for any sign of discrimination \textit{against} a non-favored group, but have little exposure to discrimination based on acceptable treatment of the non-favored group coupled with favoritism toward another group.

\textbf{Study 1}

In designing materials for an initial test of this hypothesis, it was necessary to begin with a relatively simple and straightforward description of workplace disparities involving a traditional group. The workplace outcomes of many non-favored groups have received attention in recent decades, and one of the most enduring objects of scrutiny has been the differential outcomes of women compared to men in the workplace. As relatively new participants in the white-collar workforce, the seemingly arbitrary undervaluing of women’s contributions continues to be highly publicized (e.g., the often-
cited statistic that women earn approximately 70 to 75 cents for every dollar that their male counterparts earn). Such discrimination is particularly objectionable in employment contexts that do not naturally favor one sex or the other. The class action lawsuit brought by female employees of Wal-Mart is one example of a workplace in which the skills and abilities required are not found more frequently in one sex than the other. Similarly, many white collar professions are equally suited to males and females, and such a context was used in Study 1. The context of an advertising agency is not strongly associated with any sex-based stereotypes, and it is likely that the general public knows little about the inner workings of advertising agencies. As such, an advertising agency is a desirable setting for this initial study.

In order to minimize any confusion and to reduce the possibility that the disparities in question might be overshadowed by other details, a brief vignette involving only one employment statistic was created for this first study. The history of promotions in this company was selected as the vehicle for discrimination because the process of granting or denying promotions need not be a zero-sum resource. Individuals can be evaluated for promotion based on merit, irrespective of others’ outcomes. Percentages rather than absolute numbers were used to describe the success or failure rate of promotions in order to avoid providing additional information about the size of the company or the number of male and female employees, as such information might influence assessments of the workplace culture or resources. The objective was to provide information only about the disparities in promotion rates between male and female employees to ensure that the disparities were obvious and could not be attributed to any other factor. By depriving readers of any other information aside from promotion
rates, the hypothesis is put to a conservative test: any inability to recognize discrimination in either discrimination frame will not be attributable to other inferences or assumptions made possible by additional information.

Finally, it is necessary to carefully select a realistic degree of employment disparity that is neither too large and egregious nor too small and insignificant. For this initial study, the disparity in promotions granted or denied to males and females was set at about 15%.

In Study 1, the description of a sex-based employment disparity scenario is presented in one of two ways. The disparity in workplace outcomes (specifically, promotion rates) between male and female employees at an advertising company is quantifiably identical across both types of disparity. To manipulate type of disparity, the reference point for the promotion outcomes is altered. In the disadvantage-based frame of disparity, failure to receive a promotion is established as the frame used to describe differential outcomes. Female employees are explicitly denied promotions more often than an objective standard would dictate, while male employees are denied promotions at rates consistent with an objective standard. In this sense, disparity is framed as greater losses to the favored group relative to an average rate of loss, the form of discrimination predicted to be representative of most lay perceptions of discrimination.

In the advantage-based frame of outcome disparity, promotions received is the frame used to describe differential outcomes. Male employees are explicitly promoted more often than an objective standard would predict, while female employees are promoted at rates consistent with an objective standard. In this sense, disparity is framed as greater gains to the favored group relative to an average rate of gains. The non-favored
group is receiving standard, “by the book” treatment, while the favored group profits from a higher-than-average level of success.

After reading about these disparate outcomes in the context of a pending employment discrimination lawsuit, participants are asked to rate the extent to which they believe discrimination has occurred, the strength of the plaintiff’s case for discrimination, how fair the situation is, and how likely it is that the plaintiffs will be successful at a future trial.

Participants

44 introductory psychology students (27 females, 17 males) participated in exchange for course credit.

Materials and procedure

All instructions and stimulus materials were presented to participants individually on PC computers using MediaLab (© 2004, Empirisoft, Inc.) experimentation software. All participants were informed that they would be reading a fictional scenario about a possible case of sex-based employment discrimination, and were asked to imagine that it may be brought to a future civil trial. On the next computer screen, participants read a brief description of the disparate outcome scenario. The following version representing the disadvantage-based frame was presented to 23 participants:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Ad-vert at least once in the last 10 years.
An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 65%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 79% were denied promotions, a figure higher than the average of 65%. On the other hand, male employees up for promotion at Ad-vert were denied promotions roughly 64% of the time, an average rate of promotion denials.

The version representing the advantage-based frame was presented to the remaining 21 participants:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 35%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 36% received promotions, an average rate of promotions. On the other hand, male employees up for promotion at Ad-vert received promotions roughly 50% of the time, an above-average rate of promotions.
Note that for both types of frames, the numerical disparity between male and female outcomes (compared to an objective standard) is virtually identical: 14% more losses in the disadvantage-based frame condition and 15% more gains in the advantage-based frame condition. The only difference is in what kind of reference point is established: denied promotions (losses) in the disadvantage-based frame of disparity, and received promotions (gains) in the advantage-based frame of disparity (see Appendix A for all materials presented in Study 1).

**Dependent variables**

Following presentation of the disparity scenario, participants were then asked to indicate on 7-point scales whether, and to what degree, the situation was perceived to be discriminatory. The primary dependent variable was composed of three separate judgments: the degree of discrimination (1 = no discrimination, 7 = high degree of discrimination), how strong the plaintiffs’ case would be (1 = very weak, 7 = very strong), and how successful the plaintiffs would be at trial (1 = not at all successful, 7 = very successful). For exploratory purposes, participants were also asked to rate how fair the situation was (1 = not at all fair, 7 = very fair).

**Results**

The first three measures of discrimination (degree of discrimination, strength of case, and likelihood of success) were averaged to form a single index of overall discrimination (\( \alpha = .76 \)). As expected, this overall discrimination variable and ratings of fairness were significantly negatively correlated, \( r = -.42, p < .01 \). The data for each measure were subjected to a 2 (frame) x 2 (participant gender) between-groups ANOVA. The framing manipulation had a significant effect on ratings of overall discrimination.
Participants who read that males were granted more promotions than expected while females were granted promotions at an average rate (advantage-based frame) rated the situation as less discriminatory overall \((M = 3.68, SD = 1.34)\) than those who read that females were denied more promotions than expected while males were denied promotions at an average rate (disadvantage-based frame; \(M = 4.32, SD = .97\)), \(F(1, 43) = 6.70, p = .01, \eta^2 = .14\) (see Figure 2.1).

There was a main effect of participant gender on ratings of overall discrimination, such that female participants consistently rated all scenarios more discriminatory \((M = 4.47, SD = .96)\) than male participants \((M = 3.26, SD = 1.17)\), \(F(1,43) = 18.09, p < .01, \eta^2 = .30\). However, gender did not significantly interact with frame to affect ratings of overall discrimination, \(F(1, 43) = .51, \text{ns}\).

There was no significant main effect of frame on ratings of fairness. The scenario was rated as equally unfair in the advantage-based frame \((M = 3.09, SD = 1.41)\) as in the disadvantage-based frame \((M = 2.92, SD = 1.14)\), \(F(1,43) = .05, \text{ns}\) (see Figure 2.2). There was a marginally significant main effect of participant gender on fairness. Consistent with the results for overall discrimination, female participants consistently rated all scenarios as less fair \((M = 2.76, SD = 1.33)\) than male participants \((M = 3.39, SD = 1.09)\), \(F(1,43) = 2.73, p = .11, \eta^2 = .06\). As with ratings of overall discrimination, there was no significant interaction of participant gender with frame on ratings of fairness, \(F(1, 43) = 2.24, p = .14\).
Figure 2.1. Mean ratings of overall discrimination, Study 1 (all ratings indicated on a 1-7 scale)

Figure 2.2. Mean ratings of fairness of disparity, Study 1 (all ratings indicated on a 1-7 scale)

Discussion

The results of Study 1 indicate that participants are relying on information other than comparison of absolute numbers or percentages when judging whether a scenario
constitutes discrimination. In both scenarios, participants were provided with information clearly indicating that workplace outcomes favored males over females to the same extent; 14% more denied promotions in the disadvantage-based frame, and 15% more promotions granted (to males) in the advantage-based frame. Nonetheless, the advantage-based frame was judged to constitute a lesser degree of discrimination than the disadvantage-based frame, and participants were also less likely to believe that the female employees’ case was strong or that they were likely to prevail at a civil trial. This effect was not moderated by participant gender; while females were always more likely to view either scenario as discriminatory, both male and female participants exhibited the same main effect of frame.

When assessing how fair the situation was, there was no significant difference in perceptions of fairness between the two frames: both were rated as equally unfair (an average rating of “3” on a 7-point scale). Again, participant gender did not moderate this effect, and female participants were likely to rate both scenarios as less fair than male participants. It is therefore unlikely that the objective discrepancy in outcomes was unnoticed or obscure to participants. Rather, they seemed to set a different threshold for judging the fairness of a set of outcomes and whether the outcomes constitute discrimination.

Although these data indicate that discrimination based on advantage is deemed less discriminatory than discrimination based on disadvantage, it is not clear whether this effect can be attributed to a mismatch between one’s naïve expectations (or theories) of discrimination and the advantage-based disparity frame, or to something about this
specific scenario. Two variations of Study 1 were developed to further explore the robustness of the framing effect across contexts and target groups.

Study 2

If the effect on discrimination ratings in the advantage-based frame is due to a conflict between naïve theories of discrimination that entail disadvantage and the discrimination described in the advantage-based frame, then the effect should hold regardless of employment context. Some job contexts are more likely to be associated with sex discrimination than others. For example, if the advantage-based frame of disparity were presented in a more stereotype-congruent employment context where women would be expected to be victims of discrimination (like a construction company), then the expectedness of this situation might render both frames equally discriminatory (or perhaps equally non-discriminatory). It could be argued that a context where discrimination is expected would reduce the degree of perceived discrimination precisely because it is expected that one group (in this case, males) is better suited to the work than another group (females). However, if the framing effect is due to a more fundamental inability to define discrimination in terms of disproportionate advantage, then the expectedness of the situation should not alter the effect. Therefore, in Study 2 employment context (neutral or stereotype-congruent) was introduced as a second factor.

Second, another alternative explanation must be ruled out. While the disparity described in both frames in Study 1 was virtually identical in magnitude, the absolute values of the percentages used to define the disparities were different for each frame. Specifically, in the disadvantage-based frame, larger numbers described the percentages of denied promotions (64%, 65%, and 79%). In the advantage-based frame, smaller
numbers described the percentages of promotions granted (35%, 36%, and 50%). It is possible that participants paid less attention to the outcome disparities (which, again, were nearly identical across conditions) and instead used a heuristic in which larger numbers, regardless of context, represent stronger evidence of discrimination than smaller numbers. Perhaps the female employees’ hypothetical lawsuit seemed less likely to succeed in the advantage-based frame because participants assumed that smaller numbers equated with less evidence. Therefore, all framing manipulations in subsequent studies use the same numeric values to describe the disparate outcomes.

Participants

A total of 78 introductory psychology students (40 females, 38 males) participated in Study 2 in exchange for course credit.

Materials and procedure

All instructions and stimulus materials were presented to participants individually on PC computers using MediaLab (© 2004, Empirisoft, Inc.) experimentation software. All participants were informed that they would be reading a fictional scenario about a possible case of sex-based employment discrimination, and were asked to imagine that it may be brought to a future civil trial. On the next computer screen, participants read a brief description of the disparity scenario. (See Appendix B for all materials presented in Study 2.) Half of all participants read a revised description of the same disparity scenario as was presented in Study 1. In the disadvantage-based frame conditions, only the numbers (percentages) used to describe the disparity were changed:
An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, male employees up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

Similarly, in the advantage-based frame conditions, only the numbers (percentages) used to describe the disparity were changed from Study 1:

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, male employees up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.

As in Study 1, the numerical disparity between male and female outcomes (compared to an objective standard) is identical in both frames: 11% more losses in the disadvantage-based frame and 11% more gains in the advantage-based frame. The only difference is in what kind of reference point is established: denied promotions (losses) in the disadvantage-based frame, and received promotions (gains) in the advantage-based frame.
Employment context was manipulated in Study 2 by placing the male-female employment disparities in a construction company (rather than an advertising agency), which is typically a male-dominated environment. To manipulate context, all references to “advertising agency(ies)” in the neutral context conditions were replaced with “construction company(ies)” in the stereotype-congruent conditions and all references to “Ad-vert” were replaced with “Hopkins Partners.” All other text remained unchanged.

**Dependent variables**

Following presentation of the disparity scenario, participants were asked to indicate on 7-point scales whether, and to what degree, the situation was perceived to be discriminatory. The primary dependent variable was composed of three separate judgments: the degree of discrimination (1 = no discrimination, 7 = high degree of discrimination), how strong the plaintiffs’ case would be (1 = very weak, 7 = very strong), and how successful the plaintiffs would be at trial (1 = not at all successful, 7 = very successful). For exploratory purposes, participants were also asked to rate how fair the situation was (1 = not at all fair, 7 = very fair).

**Results**

The first three measures of discrimination (degree of discrimination, strength of case, and likelihood of success) were averaged to form a single index of overall discrimination (α = .84). As expected, this overall discrimination variable and ratings of fairness were significantly negatively correlated, \( r = -.51, p < .01 \).

The discrimination rating data were subjected to a 2 (frame) x 2 (employment context) x 2 (participant gender) between-groups analysis of variance. The frame manipulation had a significant main effect on ratings of overall discrimination.
Participants who read that males were granted more promotions than expected while females were granted promotions at an average rate (advantage-based frame) rated the situation as less discriminatory overall ($M = 3.32$, $SD = 1.29$) than those who read that females were denied more promotions than expected while males were denied promotions at an average rate (disadvantage-based frame; $M = 3.94$, $SD = 1.26$), $F(1, 70) = 7.68, p < .01$, $\eta^2 = .10$. There was no main effect of employment context on ratings of overall discrimination (neutral context: $M = 3.81$, $SD = 1.46$; construction company: $M = 3.47$, $SD = 1.14$), $F(1, 70) = .40, ns$. In addition, context did not moderate the main effect of frame on discrimination, $F(1, 70) = 2.42, ns$ (see Figure 2.3).

There was a significant main effect of participant gender on ratings of discrimination, such that female participants consistently rated both scenarios as more discriminatory ($M = 4.16$, $SD = 1.05$) than male participants ($M = 3.07$, $SD = 1.32$), $F(1, 70) = 19.46, p < .01$, $\eta^2 = .22$. Gender did not significantly moderate the effect of frame on discrimination ratings, $F(1, 70) = .64, ns$, nor did gender interact with employment
context to affect ratings of discrimination, $F(1, 70) = 1.37, ns$. Finally, there is no significant 3-way interaction between frame, employment context, and participant gender on ratings of discrimination, $F(1, 70) = .27, ns$.

The frame manipulation also had a significant main effect on ratings of fairness. Participants who read that males were granted more promotions than expected while females were granted promotions at an average rate (advantage-based frame) rated the situation as more fair ($M = 4.00, SD = 1.32$) than those who read that females were denied more promotions than expected while males were denied promotions at an average rate (disadvantage-based frame; $M = 3.31, SD = 1.28$), $F(1, 70) = 7.89, p < .01$, $\eta^2 = .10$. There was no main effect of employment context on ratings of fairness (neutral context; $M = 3.61, SD = 1.48$; construction company: $M = 3.69, SD = 1.22$), $F(1, 70) = .03, ns$. In addition, context did not moderate the effect of frame on fairness, $F(1, 70) = .62, ns$ (see Figure 2.4).
Figure 2.4. Mean ratings of fairness (collapsed across participant gender), Study 2 (all ratings indicated on a 1-7 scale)

There was a significant main effect of participant gender on ratings of fairness, such that female participants consistently rated both scenarios as less fair ($M = 3.18$, $SD = 1.11$) than male participants ($M = 4.16$, $SD = 1.39$), $F(1, 70) = 14.73$, $p < .01$, $\eta^2 = .17$. Gender did not significantly moderate the effect of frame on ratings of fairness, $F(1, 70) = .65$, $ns$, but gender did significantly interact with employment context to affect fairness ratings, $F(1,70) = 4.94$, $p<.05$, $\eta^2 = .07$. Fairness ratings did not significantly differ by gender in the construction company context (overall $M = 3.69$, $SD = 1.22$), but in the neutral context female participants rated both situations as significantly less fair ($M = 2.95$, $SD = 1.02$) than male participants ($M = 4.53$, $SD = 1.55$). Finally, there is no significant 3-way interaction between frame, employment context, and participant gender on ratings of fairness, $F(1, 70) = .16$, $ns$. 
Discussion

Study 2 was designed to replicate the significant effect of disparity frame found in Study 1, as well as to extend the effect into a different employment context where discrimination against women would be more expected and, perhaps, easier to detect in all conditions. The robustness of the framing effect found in Study 1 was demonstrated in two ways in Study 2. First, the main effect of frame on ratings of overall discrimination was replicated; disparity in the advantage-based frame conditions (more promotions granted to males) was judged less discriminatory than in the disadvantage-based frame conditions (more promotions denied to females). Participant gender did not significantly moderate this effect (although female participants consistently rated all scenarios as more discriminatory than male participants). A potential alternative explanation for the results of Study 1 was addressed in Study 2. The absolute value of the percentages used to describe the disparities in Study 1 were much larger in the disadvantage-based frame than in the advantage-based frame, so in Study 2 the number values were held constant across both frame conditions. Thus the framing effect is not attributable to the magnitude of the numbers used in each frame.

Second, employment context did not significantly moderate this main effect. Discrimination against females at a construction company did not render the advantage-based disparity frame any more salient to participants, despite the fact that discrimination against women in this context is not surprising. The disparity in these scenarios was fully congruent with participants’ expectations, yet they still seemed unable to fully recognize advantage-based discrimination. Although the effect of frame is attenuated compared to
the neutral (advertising agency) context, the pattern is not significantly different across employment contexts.

One inconsistency between the results of Study 1 and Study 2 is in the effect of frame on fairness ratings. Recall that in Study 1, ratings of fairness were not significantly different across the advantage-based and disadvantage-based frame conditions, although fairness ratings in the advantage-based frame condition were slightly higher than in the disadvantage-based frame condition. A significant main effect for ratings of fairness was found in Study 2; the advantage-based frame was rated as more fair (4.1 on a 7 point scale) than the disadvantage-based frame (an average rating of 3.3). This effect was not significantly moderated by participant gender. (Female participants consistently rated all scenarios as less fair than male participants, though males and females varied more widely in their fairness ratings in the neutral context than in the construction company context.)

The absence of a significant framing effect on ratings of fairness in Study 1 was interpreted as the participants’ recognition that both the advantage-based and disadvantage-based disparity frames described an unfair situation, yet one was judged to be more discriminatory than the other. The implication was that unfairness and discrimination are defined at different thresholds, and unfairness does not necessarily equate with discrimination. Study 2, however, casts doubt on this interpretation. It may simply be that the advantage-based disparity frame is more likely to mask every aspect of discrimination, including its perceived unfairness. Before any conclusions about the effect of frame on ratings of fairness versus discrimination can be drawn, another replication is needed to fully establish which pattern is more likely.
In addition, Studies 1 and 2 have focused solely on a sex-based form of employment discrimination. To further test the robustness of this framing effect, it is necessary to invoke a different target of discrimination. Women have a history of being discriminated against in most white-collar occupations, as do African-Americans. Thus, Study 3 will replicate the disparity scenarios of Studies 1 and 2, substituting African-American employees and White employees for female and male employees, respectively. Perhaps the framing effect found in these first two studies is due to the lower profile of sex discrimination in public consciousness, which would make advantage-based disparity particularly easy to overlook. Disparity involving a higher-profile minority group like African-Americans might be more consistent with participants’ naïve theories of typical discrimination scenarios, and the framing manipulation may be less effective.

Study 3

One unresolved issue from Studies 1 and 2 concerns the effect of frame on participants’ judgments of fairness, and the relationship between fairness and discrimination judgments. In Study 1, judgments of fairness were not significantly influenced by the type of frame in which the employment disparity was presented; in both cases the situation was judged as slightly unfair. However, in Study 2, judgments of fairness were influenced by the type of frame; disparities in the disadvantage-based frame were rated significantly more unfair than disparities in the advantage-based frame. Given the equivocal results for this measure, a third study would be useful to determine which pattern holds.

Additional dependent measures were also added to Study 3 in order to explore a potential correlate of the framing effect found in Studies 1 and 2. If the advantage-based
frame lessens the degree of perceived discrimination in these scenarios, then it follows that participants reading the advantage-based frame are also less likely to view the employment disparities as intentionally (and inappropriately) caused by the company. If true, participants in this condition would also be less likely to endorse a reparative program like affirmative action at the company, because such policies are designed to remedy intentional and inappropriate discrimination based on social group membership. Issues of intent are particularly relevant in a legal context. If a plaintiff can prove that an employer deliberately used social group membership as a factor in employment decisions, the case is easier to prove and would not require the volumes of evidence needed to prove “disparate impact” discrimination (in which discrimination is indirectly proven using the discrepant outcomes of employees, even though there may be no evidence that the company intentionally engaged in discrimination). Two measures were added to Study 3 to explore the effect of frame on assessments of company intent.

Participants

A total of 101 introductory psychology students (including eight African-Americans) participated in exchange for course credit. Because of the small number of African-American participants in this study, no meaningful statistical comparisons could be made. However, an examination of the means for these eight participants revealed that the pattern did not appear to differ from the patterns found in the larger sample. Therefore all statistics reported for this study were analyzed with all 101 participants.

Materials and procedure

All instructions and stimulus materials were presented to participants individually on PC computers using MediaLab (© 2004, Empirisoft, Inc.) experimentation software.
All participants were informed that they would be reading a fictional scenario about a possible case of race-based employment discrimination, and were asked to imagine that it may be brought to a future civil trial. On the next computer screen, participants read a brief description of the disparity scenario. (See Appendix C for all materials presented in Study 3.) The following version representing the disadvantage-based frame was read by 51 participants:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of race-based employment discrimination.

The attorney focused on both White and African-American employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the African-American employees up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, White employees up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

The version representing the advantage-based frame was presented to the remaining 50 participants:
An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of race-based employment discrimination.

The attorney focused on both White and African-American employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the African-American employees up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, White employees up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.

The stimulus materials in Study 3 are identical to the materials used in the advertising agency context in Study 2, with the exception of the relevant social groups. In all instances, “African-American” was substituted for “female,” and “White” was substituted for “male.” Note that for both frames, the numerical disparity between White and African-American outcomes (compared to an objective standard) is identical: 11% more losses in the disadvantage-based disparity condition and 11% more gains in the advantage-based disparity condition. The only difference is in the reference point: denied promotions (losses) in the disadvantage-based frame, and received promotions (gains) in the advantage-based frame.
Dependent variables

Following presentation of the disparity scenario, participants were asked to indicate on 7-point scales whether and to what degree the situation was perceived to be discriminatory. The primary dependent variables were: the degree of discrimination (1 = no discrimination, 7 = high degree of discrimination), how strong the plaintiffs’ case would be (1 = very weak, 7 = very strong), and how successful the plaintiffs would be at trial (1 = not at all successful, 7 = very successful). As with Studies 1 and 2, participants were also asked to rate how fair the situation was (1 = not at all fair, 7 = very fair).

For exploratory purposes, additional variables were included to assess the degree to which participants believed the discrepant outcomes were intentionally caused by the company. Participants were asked the following question: Do you think that the pattern of White and African-American promotions found by the attorney is due to the company’s intentional actions or policies? (1 = definitely not, 7 = definitely yes).

Finally, a question about the need for affirmative action policies at this company was included: Do you think that the company should begin giving special consideration to African-Americans during the promotion process (in order to address their concerns about the company)? (1 = no, not at all, 7 = yes, very much so).

Results

The first three measures of discrimination (degree of discrimination, strength of case, and likelihood of success) were averaged to form a single index of overall discrimination (α = .84). Consistent with Studies 1 and 2, this overall discrimination variable and ratings of fairness were significantly negatively correlated, r = -.61, p < .01. As in the previous studies, the frame manipulation had a significant effect on ratings of
overall discrimination. Participants who read that Whites were granted more promotions than expected while African-Americans were granted promotions at an average rate (advantage-based frame) rated the situation as less discriminatory overall \((M = 3.05, SD = 1.27)\) than those who read that African-Americans were denied more promotions than expected while Whites were denied promotions at an average rate (disadvantage-based frame; \(M = 4.18, SD = 1.18\)), \(F(1, 99) = 21.22, p < .01, \eta^2 = .18\).

![Figure 2.5. Mean ratings of overall discrimination, Study 3 (all ratings indicated on a 1-7 scale)](image)

Consistent with Study 2, participant ratings of the situation’s fairness were significantly influenced by frame. Participants reading the advantage-based frame rated the situation as more fair \((M = 4.16, SD = 1.54)\) than participants reading the disadvantage-based frame \((M = 3.37, SD = 1.13)\), \(F(1, 99) = 8.58, p < .01, \eta^2 = .08\).

Two new measures were added to Study 3 in order to explore whether the frame manipulation affected how participants assessed the cause of the discrepancy, specifically
whether it was intentional or not and whether affirmative action policies should be implemented. Participants were significantly less likely to ascribe the discrepant outcomes to any intentional policies in the advantage-based frame ($M = 2.66, SD = 1.52$) than in the disadvantage-based frame ($M = 3.61, SD = 1.33$), $F(1, 99) = 11.15, p < .01$. Similarly, participants were significantly less likely to endorse an affirmative action remedy in the advantage-based frame ($M = 2.86, SD = 1.63$) than in the disadvantage-based frame ($M = 3.55, SD = 1.53$). $F(1, 99) = 4.81, p < .05$.

Discussion

The primary purpose of Study 3 was to demonstrate that the framing effect could be found in the potentially more salient context of racial discrimination, and the results indicate that this is clearly the case. With African-Americans as the non-favored group, participants in the advantage-based disparity frame again rated the disparate outcomes as less discriminatory than their counterparts in the disadvantage-based disparity frame. The robustness of the framing effect extended to ratings of the fairness of the situation (advantage-based frame rated more fair than the disadvantage-based frame), consistent with the results from Study 2. The absence of a framing effect on ratings of fairness in Study 1 seemed to indicate that fairness and discrimination were separate constructs requiring different levels of proof, but Studies 2 and 3 consistently indicate that judgments of fairness and discrimination are inversely linked when assessing a given situation. The correlation between these two measures in Study 3 was $-.53 (p < .01)$ in the advantage-based frame and $-.65 (p < .01)$ in the disadvantage-based frame.

Framing therefore has a broad effect on a variety of judgments, from discrimination to fairness to judgments of the intent or responsibility of the company for
producing the outcome discrepancy. Participants reading the advantage-based frame were less likely to endorse the possibility that the company intentionally caused the race-based disparities in promotions, and were less likely to agree that an affirmative action program should be implemented (not surprising, given that they were less likely to believe that the disparity was intentional).

The three studies presented in this chapter provide converging evidence of a novel effect: the malleability of perceptions of discrimination. Not all disparities in workplace outcomes rise to the level of discrimination, although the gap in outcomes between one group of employees and the other is exactly the same size. Participants apparently equate discrimination with overt disadvantage that is self-evident within the description of the scenario itself. It takes a bit more inference and foresight to understand that a situation with no overt disadvantage is also discriminatory, if one group is at a greater advantage. Such a disparity in the workplace will reproduce itself, magnify over time, and subtly lead to widely different outcomes between groups. This type of discrimination is more insidious, and it is not recognized by civil rights law. These studies demonstrate that lawmakers are not only ignoring advantage-based discrimination, but they may actually be blind to it.

Study 1 established this effect in the context of sex-based employment discrimination, and Study 2 replicated the effect of framing on discrimination, while also revealing an effect of framing on fairness. Study 2 also incorporated a test of the boundaries of this effect by including a stereotypically male workplace as a factor. Even in a construction company where discrimination against women might be expected, it was only recognized when female employees were obviously disadvantaged. Study 3
extended this effect to race-based employment discrimination, demonstrating that even a potentially more salient type of discrimination can be at least partially concealed by an advantage-based disparity frame.

The robustness of this framing effect has been demonstrated in a variety of contexts with a variety of targets. At this point it is necessary to pause and consider the reasons why this robust effect occurs. By understanding the mechanisms underlying the effect, we can better understand why it is so robust and what moderators may be effective in reducing or eliminating it.
CHAPTER 3

TOWARDS AN ATTENTION-BASED MODEL

When disparate outcomes are framed as one group’s advantage, while the other group’s outcomes are in line with expectations, the objective size of the disparity should be proof enough that group-based discrimination is occurring. Certainly, when disparate outcomes are framed as one group’s disadvantage while the other group’s outcomes are in line with expectations, observers have little doubt as to the discrimination in this scenario. Yet Studies 1 through 3 indicate that the former, advantage-based scenario is judged less discriminatory and more fair than the latter, disadvantage-based scenario, even though the size of the objective disparity is the same in all scenarios.

Study 1 provided an initial demonstration of this framing effect in the context of a sex-based employment discrimination lawsuit. In the advantage-based frame, women at an advertising agency were described as receiving promotions at an expected rate, while men were receiving promotions at an above-average rate. Conversely, in the disadvantage-based frame, women at an advertising agency were denied promotions at an above-average rate, while men were denied promotions at an expected rate. Although the disparity in outcomes between males and females was always the same, participants rated the disadvantage-based disparity as more discriminatory than the advantage-based
disparity ($\eta^2 = .14$). The advantage-based frame was also rated slightly (but not significantly) more fair than the disadvantage-based frame.

Study 2 was an examination of the robustness of this effect in an employment context where discrimination against women might be expected: a construction company. Regardless of the context, participants rated the advantage-based disparity significantly less discriminatory ($\eta^2 = .10$) and significantly more fair ($\eta^2 = .10$) than the disadvantage-based disparity. Finally, Study 3 used a race-based discrimination context (Blacks or Whites at an advertising agency) and the same framing effect was found: advantage-based disparity favoring Whites was rated significantly less discriminatory ($\eta^2 = .18$) and significantly more fair ($\eta^2 = .08$) than disadvantage-based disparity.

This asymmetric pattern of subjective perceptions of disparity is striking in its ability to withstand employment context (Study 2), targeted group (Studies 1 and 3), and even the participants’ own sex (Studies 1 and 2 concerned sex-based disparities) and race (Study 3). This pattern also holds when participants are making different kinds of judgments: the degree of discrimination implied by the disparity, the fairness of the situation, the degree to which the company intentionally caused the disparity, and the need for affirmative action to repair the disparity.

This is a rather simple manipulation of the frame of a disparity that should be obvious to a casual observer; no attempt is made to disguise the extent of the objective discrepancy in promotions received or denied. The very robustness of this effect on different dependent measures inevitably leads one to ask whether it is strengthened by an additional mechanism aside from the prospect theory explanation advanced in Chapter 1. Studies 1 through 3 do seem to confirm a central tenet of prospect theory, namely that
losses are experienced (and evaluated) more intensely than gains of a similar magnitude.

But is there another psychological factor (or factors) aiding and abetting the potent effect of the subjective value function? The obvious way to answer this question is to find this hypothesized factor and experimentally enhance or weaken it as a moderator in future studies.

But what is this second factor that might be working in concert with the subjective value function to produce the framing effect? A clue may lie in the effect of the framing manipulation on two separate judgments: discrimination and fairness. In all studies, participants’ judgments of discrimination and fairness in each scenario were significantly negatively correlated. This result is intuitive and not surprising, given that participants’ naïve definitions of discrimination are probably characterized by an element of unfairness. Thus, to the extent that discrimination is perceived, unfairness should also be perceived.

Although they may go hand-in-hand, discrimination and fairness are fundamentally different constructs and may not be assessed using the same criteria. A voluminous amount of research exists on employee perceptions of fairness and discrimination in the workplace, and focuses on the (alleged) victim’s perspective and information processing (e.g., Brockner & Wiesenfeld, 1996; Gilliland, 1993; Goldman, 2001; Ryan & Ployhart, 2000). But Studies 1 through 3 focus on fairness and discrimination judgments from an uninvolved observer’s perspective, so many of the informational and motivational factors that have been found to differentiate these two types of judgments from the victim’s perspective are not applicable here. However, in exploring the different antecedents of fairness and discrimination judgments,
organizational behavior researchers and social justice theorists posit that each judgment is powerfully influenced by 1) the amount of information available, and 2) the heuristic, or “rule” used to quickly assess the situation.

If, as in the current studies, little information is available about the procedure and decision-making criteria that contributed to the disparate outcomes, people have little choice but to focus on the apparently unfair outcome itself (distributive fairness) rather than procedural fairness (van den Bos, Wilke, Lind, & Vermunt, 1998). In addition, when little procedural information is provided, people must rely on their beliefs, expectations, and norms about discrimination: in other words, their prototypes (Inman, 2001; Inman & Baron, 1996). Harris, Lievens, and van Hoye (2004) propose that, when little additional information is available, perceptions of discrimination are likely to be guided by one’s discrimination prototypes. In other words, people do a quick match of the situation with their prototypes when they are unable or unmotivated to process further information. Fairness judgments are separate and require more deliberation about procedures and relative outcomes.

Discrimination and fairness judgments are based on different distributive rules. An equality rule stipulates that all employees/applicants must have an equal chance of receiving a positive outcome, regardless of each individual’s level of input. An equity rule takes into consideration not just the outcome, but each employee’s qualifications and contributions relative to the group as a whole when determining his or her share of a positive outcome. According to Harris, et al. (2004), discrimination judgments are more sensitive to violations of the simple equality rule, while fairness is generally determined on the basis of the more complex equity rule. In sum, given the different types of
information and different distributive rules used when determining discrimination versus
fairness, fairness judgments are probably more nuanced and require more deliberation.
Judgments of discrimination require only the presence of a disparate outcome and a
match to an existing lay prototype that likely defines discrimination as substandard
treatment of one group.

If perceptions of fairness are supposedly driven by a fuller consideration of each
group’s outcomes relative to the other, participants in Studies 1-3 should have been able
to recognize the unfairness inherent in the advantage-based frame. But perhaps it is
inevitable that participants did not differentiate between discrimination and fairness. In
these studies, participants were provided only with information about a set of disparate
outcomes, one which easily fit the prototype of discrimination (disadvantage-based
frame) and one which did not (advantage-based frame). If judgments of discrimination
are based on prototype-matching, participants were less likely to judge the advantage-
based disparity as discriminatory because it did not fit their lay definition of
discrimination. Their subsequent assessments of fairness may have been based largely on
their recent and relatively effortless assessment of discrimination (or lack thereof).
Perhaps there was little or no inducement to consider the relative outcomes of each
group—additional information that is necessary to assess fairness and necessary to fully
assess discrimination.

A Two-Step Model

I propose that effort and attention are crucial to the effectiveness of the framing
manipulation in Studies 1-3. Discrimination judgments were significantly affected by the
framing manipulation because the frame also manipulates match to a lay prototype of
discrimination, and little effort is needed to match the objective position of the non-favored group to the typical case of discrimination (disadvantage-based frame). To recognize discrimination in the advantage-based frame would require a further comparison of the relative outcomes (compared to an objective standard) of the two employee groups. This additional information processing step is also required for judgments of fairness, which involve more comparisons of relative outcomes and qualifications. The fact that fairness judgments were similarly influenced by frame indicates that participants were unable or unmotivated to consider the entire situation, and instead derived their judgments from a simple discrimination prototype match: if one group is receiving substandard outcomes, it is discrimination. If no group is receiving substandard outcomes, it is not discrimination.

Recognizing discrimination and unfairness in the disadvantage-based frame requires one simple judgment: is the objective position of the non-favored group substandard? The answer is obviously “yes” in the disadvantage-based frame, and “no” in the advantage-based frame. We can infer that this first step is relatively effortless because participants also rate disadvantage-based discrimination as less fair than advantage-based discrimination. Recognition of fairness judgments in the advantaged frame requires a second judgment: is the outcome of the non-favored group negative when compared to the favored group? If participants take this second step and compare the outcomes of the two groups to an objective standard, it is also possible that the discriminatory nature of the advantage-based frame will become more obvious.

Thus, recognition of advantage-based discrimination requires two assessments: 1) the position of the non-favored group relative to an objective standard, and 2) comparison
of the outcome of the non-favored group relative to the favored group. If observers are willing and able to undertake the second step and fully assess the entire situation, we would expect that both scenarios would seem equally unfair. For the same reason, it is possible that increased attention and motivation might also lead participants to view both scenarios as equally discriminatory. However, if judgments of discrimination are based primarily on a simple prototype match, then we would still expect to find a framing effect because only the disadvantage-based frame matches a typical discrimination scenario.

Search for Moderators

*Ingroup involvement.* The question now becomes how to heighten participants’ ability and motivation to engage in this second processing step when assessing discrepant outcomes in the workplace. A wide variety of potential manipulations can be derived from past research. Personal relevance has been found to be a powerful means of enhancing attention to and scrutiny of persuasive messages (Petty & Cacioppo, 1984; Petty, Cacioppo, & Goldman, 1981), and in the context of discrimination, recent research by Eibach and Ehrlinger (2006) points to the importance of one’s ingroup involvement in a scenario involving disparate outcomes. When assessing progress toward racial equality in the United States, the frame of reference adopted by Whites and minorities leads to very different assessments. From the White perspective, current racial equality is judged by how far society has progressed, whereas the minority perspective judges racial equality according to how much progress has yet to be made. At the same point in time, Whites perceive less racial inequality because they focus on the substantial progress made since the times when minorities were subjected to substandard treatment by society. Minorities perceive more racial inequality because they focus on the gains they have yet
to make, which also seem substantial (Eibach & Ehrlinger, 2006). Thus, one’s ingroup, and the relative position of one’s ingroup, influences what reference point will be used when assessing discrimination and fairness of outcomes.

It may be that the involvement of one’s ingroup, particularly if that group is at a disadvantage, can induce greater attention to gains not received. This is precisely the form that discrimination takes in the advantage-based frame condition. The non-favored group is not receiving substandard treatment, but they are not receiving the same privileged treatment as the favored group. Perhaps involvement of a relevant ingroup will induce participants to attend more carefully to the relative disparity in the advantage-based frame (the second step necessary to recognize this form of discrimination).

Ingroup identity plays an important role in perception of discrimination against the self (Harris, et al., 2004) because highly identified ingroup members are more sensitive to inequalities (Sellers & Shelton, 2003). At the very least, the mere involvement of one’s ingroup in a workplace discrimination scenario may increase participants’ attention to all information given, and enhance the likelihood that participants will take the second step necessary to recognize advantage-based discrimination. Eibach and Ehrlinger (2006) made a similar argument when they found that the particular reference point used by White and minority participants assessing racial progress was settled upon fairly quickly, and more time and deliberation were needed to consider the perspective of the other racial group.

It seems reasonable to propose that involvement of a personally relevant ingroup should increase one’s sensitivity and attention to all forms of outcome disparities. Yet no moderating effect of participant gender was found in Studies 1 or 2, which involved
alleged discrimination against women; female participants were affected by the frame to the same extent that male participants were. However, it is important to note that ingroup identity will increase sensitivity to discrimination only among those who are highly identified with the ingroup (Sellers & Shelton, 2003). Although it is possible that a few of the female participants were highly identified with their gender category, gender as an ingroup category is probably far too inclusive (half of all human beings) and not optimally distinct enough to invoke strong ingroup identification among most people, male or female (Brewer, 1991).

In Study 3, discrimination against African American employees was at issue. Only eight of the 101 participants identified themselves as African American, precluding any meaningful statistical analyses. Given the demographic profile of our subject pool (undergraduate students at Ohio State University), it would be difficult to conduct Study 3 again with an equal number of White and African American participants. In planning future studies, it will be desirable to invoke an ingroup that is presumably highly salient and important to participants. My subject pool is composed almost entirely of college freshmen who have been inundated with information and positive messages about their new university, and the impact of this information is strengthened by its timing during a significant transitional period in their lives (beginning life in college). “Ohio State University” is a convenient, salient, and potentially powerful identity to invoke in a future study.

Valence of outcomes. Aside from increasing attention and motivation by invoking a salient ingroup, there is an even more fundamental way to increase sensitivity to a set of disparate outcomes. Consistent with most research in prospect theory, the previous three
studies have focused on an unequal distribution of a positive outcome: employment promotions. Certain groups of employees are losing more promotions than they should (disadvantage-based frame), or other groups of employees are gaining more promotions than they should (advantage-based frame).

Participants’ inability to recognize the same degree of discrimination in the advantage-based conditions may be due to the fact that a positively-valenced outcome is being unequally distributed, not a negatively-valenced attitude. Mummendey and her colleagues (see Mummendey & Otten, 1998) have consistently found that people are very comfortable distributing positive resources in a way that favors their ingroup, but very uncomfortable distributing negative resources unequally. This “positive-negative” asymmetry in intergroup allocations extends to third-party judgments of resource allocations; ingroup favoritism using positive resources is acceptable, but unequal distribution of negative resources is not acceptable (Blanz, Mummendey, & Otten, 1997).

In the advantage-based scenarios of Studies 1-3, advantage is defined as the favored group receiving more positive outcomes than the non-favored group. According to the logic of the positive-negative asymmetry, participants are unlikely to view this situation as highly discriminatory. On the other hand, if advantage is defined in terms of negative outcomes, the positive-negative asymmetry would predict that participants would be more sensitive to the inequality, regardless of whether the inequality is due to the non-favored group’s extra disadvantage or the favored group’s extra advantage. Such increased sensitivity should have the most pronounced effect in the advantage-based frame. According to the two-step model, discrimination is not recognized in this frame because participants are not paying attention to the relative outcome information.
contained in the second step. Perhaps this inattention has been facilitated by the fact that positive, not negative, outcomes are being unequally allocated.

The next two studies will test each of the proposed moderators of the framing effect. In Study 4, ingroup involvement is hypothesized to increase attention to the relative outcome discrepancies (Step 2) in both frame conditions, and no difference in perceptions of discrimination or fairness is expected between conditions. In Study 5, disproportionate allocation of negative outcomes is hypothesized to increase participants’ sensitivity to the relative outcome discrepancies in both conditions, and no difference in perceptions of discrimination or fairness is expected between conditions. Both of these moderators are selected in order to test the two step model of perceptions of discrimination. If the framing effect is due to a lack of attention to the second step (comparing relative outcomes), these moderators are expected to eliminate the framing effect by increasing sensitivity and attention to the entire situation.
CHAPTER 4

THE SEARCH FOR MODERATORS OF THE FRAMING EFFECT

Discrimination can arise as the result of the disproportionate disadvantage of a non-favored group, producing a disparity because the favored group is receiving the expected level of resource distribution, while the non-favored group is receiving a substandard level of resources. I refer to this type of disparity as disadvantage-based discrimination. Discrimination can also arise as the result of disproportionate advantage of a favored group, producing a disparity because the favored group is receiving an above-average level of resource distribution, while the non-favored group is receiving the standard level of resources. I refer to this type of disparity as advantage-based discrimination.

Participants in Studies 1-3 consistently rated disparities framed as advantage-based as less discriminatory than equivalent disparities framed as disadvantage-based. I propose that this framing effect is due to a relatively simple process of discrimination prototype matching that requires little attention or deliberation. Discrimination is prototypically defined as mistreatment of one group, and only disadvantage-based discrimination is consistent with this prototype. Participants need only to look at the objective disparity in the outcomes of the non-favored group to determine that discrimination is clearly taking place. Lack of attention to the relative outcomes of the
two groups in the advantage-based frame can be inferred from the fact that participants
generally rated this disparity as more fair than the disadvantage-based frame. Since
fairness judgments are inherently comparative, one would expect that, had participants
been fully attending to all information in the previous studies, they would recognize that
the advantage-based disparity, while perhaps not discriminatory, is at the very least
unfair.

If participants are motivated to pay closer attention to all information provided in
the advantage-based frame, I hypothesize that not only will they recognize it as equally
unfair as the disadvantage-based frame, they will also recognize it as equally
discriminatory. To recognize advantage-based discrimination, two mental steps are
necessary. First, an observer must examine the non-favored group’s position relative to
an objective standard. This first step leads to easy recognition of discrimination in the
disadvantage-based frame, but is not sufficient to recognize advantage-based
discrimination. Observers must next compare the relative outcomes of both groups, at
which point the disadvantage (or lack of advantage) of the non-favored group becomes
apparent.

In order to test the hypothesis that increased attention will attenuate or eliminate
the framing effect, I needed to identify factors that would be expected to influence
attention to the outcome disparities presented in my scenarios, either by increasing
motivation to attend or by increasing salience of the comparative information. The
information provided to participants in Studies 1-3 was minimal, and consisted almost
entirely of information about the disparity between two groups of employees. The goal of
the new studies is to test moderators that are likely to enhance attention to advantage-
based disparity with this minimal amount of information, as this minimal information has proven to be sufficiently robust across employment context and type of disadvantaged group.

A variety of potential moderators could be considered, but in order to increase motivation to process the information the disparity scenarios were altered to seem more personally relevant to the participants in Study 4. All members of the available subject pool are undergraduate students at the Ohio State University (OSU). This is an ingroup identity that nearly all have voluntarily (and even enthusiastically) adopted, and it is expected to be particularly salient in the context of course-related activities such as participating in research studies for course credit. Simply changing the types of groups involved in these scenarios to employees associated with OSU and employees associated with another university can be expected to motivate participants to examine the nature of the entire situation and take the second step necessary to recognize advantage-based discrimination.

Study 4

In Study 4, the discrimination scenarios are identical to those in Study 3 but the two groups of employees involved in the potential discrimination lawsuit are changed to Ohio State University (OSU) alumni and Indiana University (IU) alumni. This additional factor was manipulated at three levels: OSU as the favored group, OSU as the non-favored group, or OSU uninvolved (the control condition in which the two employee groups are alumni of two other Ohio universities). If the mere presence of one’s salient ingroup is enough to motivate attention to the advantage-based frame, then the framing effect should be attenuated in both OSU-involved conditions compared to the control
condition in which OSU is uninvolved. If the presence of one’s salient ingroup enhances motivation to attend only when that ingroup is at a disadvantage, then the framing effect should be attenuated only in the OSU-not favored condition.

The use of university alumni as the relevant employee groups also allows for a cleaner test of the framing effect overall. Studies 1-3 involved discrimination against groups that have been historically disadvantaged in the workplace (women and African Americans). Participants reading the advantage-based scenarios may have taken the perspective that, given their history, women and minorities who are being treated “by the book” have already accomplished a great deal, and there is no need to take the second step of comparing their outcomes to men and Whites in the company (Eibach & Ehrlinger, 2006). Using a social group that does not have a history of discrimination allows a test of the framing effect without this historical context. If the discrimination ratings in the control condition of the current study show an effect of disadvantage-based v. advantage-based disparity frame, then it will be clear that the framing effect does not depend on comparison to past disadvantage.

Participants

A total of 101 introductory psychology students (64 males, 37 females) participated in exchange for course credit.

Materials and Procedure

All instructions and stimulus materials were presented to participants individually on PC computers using MediaLab (© 2004, Empirisoft, Inc.) experimentation software. All participants were informed that they would be reading a fictional scenario about a possible case of college-based employment discrimination, and were asked to imagine
that it may be brought to a future civil trial. On the next computer screen, participants read a brief description of the scenario. (See Appendix D for all materials presented in Study 4.) The following version representing OSU alumni as the favored group in the disadvantage-based disparity frame was presented to 17 participants:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Ohio State (OSU) and employees who had graduated from Indiana University (IU) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the IU graduates up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, OSU graduates up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

The following version representing OSU alumni as the favored group in the advantage-based disparity frame was presented to 17 participants:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.
The attorney focused on employees who had graduated from Ohio State (OSU) and employees who had graduated from Indiana University (IU) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the IU graduates up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, OSU graduates up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.

Note that the numerical disparity between OSU and IU outcomes (compared to an objective standard) is identical in both frames: 11% more losses in the disadvantage-based disparity frame and 11% more gains in the advantage-based disparity condition. The only difference is in what kind of reference point is established: denied promotions (losses) in the disadvantage-based frame, and received promotions (gains) in the advantage-based frame.

In the OSU-not favored conditions, the information presented to participants (n=16 in the disadvantage-based frame, and n=17 in the advantage-based frame) was identical, except the terms “OSU” and “IU” were substituted for each other. Finally, in the OSU-uninvolved conditions, the information presented to participants (n=17 in the disadvantage-based frame, and n=17 in the advantage-based frame) was identical, except
“Bowling Green State University” (BGSU) was substituted for Ohio State and
“University of Toledo” (UT) was substituted for Indiana University.¹

Dependent variables

Following presentation of the disparity scenario, participants were asked to
indicate on 7-point scales whether, and to what degree, the situation was perceived to be
discriminatory. The primary dependent variable was composed of three separate
judgments: the degree of discrimination (1 = no discrimination, 7 = high degree of
discrimination), how strong the plaintiffs’ case would be (1 = very weak, 7 = very
strong), and how successful the plaintiffs would be at trial (1 = not at all successful, 7 =
very successful). Participants were also asked to rate how fair the situation was (1 = not at
all fair, 7 = very fair).

As in Study 3, additional variables were included to assess the degree to which
participants believed the disparate outcomes were intentionally caused by the company.
Participants were asked the following question: Do you think that the pattern of OSU
(BGSU) and IU (UT) promotions found by the attorney is due to the company’s
intentional actions or policies? (1 = definitely not, 7 = definitely yes).

Second, a question about the need for affirmative action policies at this company
was included: Do you think that the company should begin giving special consideration
to [target group] during the promotion process (in order to address their concerns about
the company)? (1 = no, not at all, 7 = yes, very much so).

¹ These two universities were selected because they have similar status as small public universities in Ohio,
and they are not considered peer institutions (and therefore are not potential competitors to OSU) in the
same way as Indiana University or another Big Ten public university.
Results

The first three measures of discrimination (degree of discrimination, strength of case, and likelihood of success) were averaged to form a single index of overall discrimination ($\alpha = .82$). The data were subjected to a 2 (frame) x 3 (ingroup relevance: OSU favored, OSU not favored, or OSU uninvolved) between groups analysis of variance. The frame manipulation had a significant main effect on ratings of overall discrimination, $F(1, 95) = 6.07, p<.02, \eta^2 = .06$. Participants who read that a favored group of college alumni were granted more promotions than expected while the non-favored group of alumni were granted promotions at an average rate (advantaged frame) rated the situation as less discriminatory overall ($M = 2.71, SD = 1.17$) than those who read that the non-favored alumni were denied more promotions than expected while the favored alumni were denied promotions at an average rate (disadvantaged frame; $M = 3.23, SD = 1.01$). There was also a significant main effect of ingroup relevance on ratings of overall discrimination, $F(2, 95) = 3.37, p < .05, \eta^2 = .07$. Scenarios with OSU alumni as the disadvantaged group were rated more discriminatory ($M = 3.35, SD = 1.01$) than the scenarios in which OSU alumni were the advantaged group ($M = 2.73, SD = 1.11$) or when OSU was not involved ($M = 2.82, SD = 1.17$). However, neither of these main effects was qualified by a frame x ingroup relevance interaction, $F(2,95) < 1, ns$ (see Figure 4.1).
There was a significant main effect of frame on ratings of fairness, $F(1, 95) = 7.98$, $p < .01$, $\eta^2 = .08$, and also a significant main effect of ingroup relevance on fairness ratings, $F(2, 95) = 6.85$, $p < .01$, $\eta^2 = .13$, but these main effects were moderated by a significant frame x ingroup relevance interaction, $F(2, 95) = 3.18$, $p < .05$, $\eta^2 = .06$ (see Figure 4.2). Simple main effects analyses reveal that this interaction is due to a significant simple main effect of frame when OSU is the non-favored group ($F(1, 95) = 4.29$, $p < .05$) and when OSU is the favored group ($F(1, 95) = 10.10$, $p < .05$), but not when OSU is uninvolved ($F(1, 95) < 1$, ns). Overall, participants reading the scenarios in which OSU alumni are either the non-favored group or the favored group rated the advantage-based frame as significantly more fair than the disadvantage-based frame, but there was no significant difference in ratings of fairness when two other university alumni groups were involved.
Figure 4.2. Mean fairness ratings, Study 4 (all ratings indicated on a 1-7 scale)

Two additional measures were included in Study 4 in order to measure whether the frame manipulation affected how participants assessed the cause of the discrepancy, specifically whether it was intentional or not and whether affirmative action-type policies should be implemented. Participants were significantly less likely to ascribe the discrepant outcomes to any intentional policies in the advantage-based frame ($M = 2.27$, $SD = 1.20$) than in the disadvantage-based frame ($M = 2.88$, $SD = 1.49$), $F(1, 95) = 5.57$, $p = .02$, $\eta^2 = .06$. Participants were also significantly more likely to ascribe the discrepant outcomes to intentional policies when OSU alumni were the non-favored group ($M = 3.15$, $SD = 1.46$) than when OSU alumni were the favored group ($M = 2.21$, $SD = 1.32$)
or when OSU was uninvolved ($M = 2.38, SD = 1.21$), $F(2, 95) = 4.99, p < .01, \eta^2 = .10$.

However, neither of these main effects on ratings of intent were qualified by a frame x ingroup relevance interaction, $F(2, 95) < 1, ns$.

For the second measure, participants were significantly less likely to endorse an affirmative action-type remedy in the advantage-based frame ($M = 1.80, SD = 1.18$) than in the disadvantage-based frame ($M = 2.28, SD = 1.33$). $F(1, 95) = 3.71, p = .057, \eta^2 = .04$.

There was no significant main effect of ingroup relevance on affirmative-action endorsement ($F(2, 95) = 1.83, p = .17, \eta^2 = .04$), but the pattern of means mirrors the pattern found for the main effect of ingroup relevance on judgments of intent: participants were more likely to endorse affirmative action when OSU alumni were the non-favored group ($M = 2.36, SD = 1.37$) than when OSU alumni were the favored group ($M = 1.97, SD = 1.27$) or when OSU was uninvolved ($M = 1.79, SD = 1.15$). However, neither of these main effects on ratings of endorsement of affirmative action were qualified by a frame x ingroup relevance interaction, $F(2, 95) < 1, ns$.

Discussion

The purpose of Study 4 was to introduce a potential moderator, ingroup relevance, as a means to enhance motivation and attention to discrimination in both outcome frames. In particular, it was hypothesized that if participants’ own highly salient ingroup (current and former Ohio State University [OSU] students) was either a favored group or a non-favored group, they would be more likely to take the second mental step necessary to recognize discrimination in the advantage-based frame, and the framing effect would be attenuated. At the very least, when OSU alumni were the non-favored group, it was
hypothesized that the discrimination involved in the advantage-based frame would be recognized to the same degree as the disadvantage-based frame.

In Study 4, ingroup relevance did not moderate the framing effect found in Studies 1-3. Under all three target conditions (OSU alumni not favored, OSU alumni favored, or OSU alumni uninvolved), participants rated the advantage-based scenario as less discriminatory than the disadvantage-based scenario. In addition, participants rated the advantage-based scenario as more fair than the disadvantage-based scenario when OSU alumni were the favored group or the non-favored group (there was no difference in fairness ratings when OSU was uninvolved). On the additional measures, participants were similarly likely to place less blame on the employer and less likely to endorse affirmative action-type measures in the advantage-based scenarios than in the disadvantage-based scenarios, regardless of who the non-favored group was.

What is surprising about these results is that the goal of the ingroup relevance moderator, to enhance sensitivity to discrimination, seems to have been successful. On all measures, there was a significant main effect of ingroup relevance: when OSU alumni were targeted as the non-favored group in the workplace, participants were likely to rate the scenario as discriminatory and less fair, and were more likely to blame the company and endorse affirmative action-type policies. Thus, it cannot be argued that participants were unaware that their ingroup was at a disadvantage. Yet they consistently rated the advantage-based scenarios as less discriminatory and more fair than the disadvantage-based scenarios, even when OSU alumni were the non-favored group.

The results of Study 4 replicated the results of the previous three studies, with one exception. When two college alumni groups (neither one of them OSU) were involved in
the discrepant outcome scenario, ratings of fairness did not differ between the advantage-based frame and the disadvantage-based frame. It should be noted that this is the first time in any of the studies that a completely “neutral” set of social groups has been used. When two neutral groups (BGSU alumni and UT alumni) were used in Study 4, the framing effect persisted for ratings of overall discrimination, but simple main effect analyses revealed that this effect was weakest in the neutral groups condition. Moreover, the discrepancy was rated equally fair (slightly above the midpoint of the 1-7 scale, at an average of 4.24 (SD = 1.10) when neutral groups were used. This contrasts with findings from the previous studies where historically disadvantaged groups were involved and a strong framing effect emerged. Although the framing effect on ratings of discrimination (but not fairness) was obtained in Study 4, these results suggest that the effect may be augmented when comparisons to past discrimination are involved. No solid conclusion can be drawn from Study 4, however, because no direct comparison to a condition with an historically disadvantaged group was included in the design. Study 5 was designed to test directly whether the type of discrimination target (historically disadvantaged or not) would moderate the framing effect.

Study 5

To this point, a number of factors have failed to dislodge the framing effect: employment context, specific disadvantaged group (women or African-Americans) or involvement of one’s ingroup (OSU alumni). The original explanation of the effect, derived from prospect theory, continues to be the most parsimonious; in the advantage-based frame, gains (granted promotions) are disproportionately awarded to a favored group, while in the disadvantage-based frame, losses (denied promotions) are
disproportionately allocated to the non-favored group. The subjective value of extra gains seems to be smaller than the subjective value of extra losses, even though the size of each discrepancy is identical.

If the subjective value function of prospect theory best explains the results of Studies 1-4, then it suggests another possible moderator of the framing effect. Losses do appear to loom larger than gains, but the losses and gains involved in all of the previous scenarios involved a positively valenced outcome: promotions. There are two reasons to manipulate outcome valence (positive or negative) in a new study. First, according to prospect theory, people are generally more sensitive to loss of any kind. Thus far I have operationalized loss (in the disadvantage-based frame) in relative terms: the outcome (promotions) is being lost more often by one group than by another. Such a focus on positive outcomes (like money) is consistent with a majority of research conducted on prospect theory. Because the value of the outcome has always been positive, it is possible that participants are less sensitive to discrepancies overall, especially in the advantage-based frame. I hypothesize that manipulating gains and losses of a negatively valenced outcome (such as employee layoffs) may cause participants to be more sensitive to discrepancies overall, and will particularly enhance their ability to recognize discrimination in the advantage-based frame.

Second, previous research indicates that people are very comfortable distributing positive resources in a way that favors their ingroup, but very uncomfortable distributing negative resources unequally (Mummendey & Otten, 1998). This “positive-negative” asymmetry in intergroup allocations is also found in observers’ judgments of resource allocations; unequal distribution of positive resources is acceptable, but unequal
distribution of negative resources is less acceptable (Blanz, Mummedey, & Otten, 1997). Thus, the positive-negative asymmetry predicts that participants will be more sensitive to discrepancies involving negative outcomes.

The potential effects of using negative rather than positive outcomes are explained by prospect theory and the positive-negative asymmetry in terms of increased sensitivity to discrepant outcomes. Such an explanation is consistent with the two-step theory advanced in Chapter 3—that recognition of discrimination and unfairness in the advantage-based frame requires evaluation of the non-favored group’s relative status after its objective position is assessed. Perhaps the ingroup relevance manipulation in Study 4 failed to eliminate the framing effect because it increased only attention to the scenario and made it more self-relevant, but did nothing to alter the underlying meaning of the discrepancy. I hypothesize that discrepancies in negative outcomes will alter the subjective meaning of the discrepancy, and enable participants to take the second step necessary to recognize advantage-based discrimination.

A third factor will also be manipulated in Study 5. The results of Study 4 seemed to indicate that when two neutral groups, without a social history of employment discrimination, are receiving unequal outcomes, there is little or no effect of framing. Although the framing effect did not disappear when the two groups involved were OSU alumni and IU alumni, these results are different from those of Studies 1-3, in which historically disadvantaged groups (women and Blacks) were the non-favored employee groups. It is possible that when an historically disadvantaged group is involved in advantage-based employment disparities, participants believe that the “average” treatment they are receiving is acceptable when viewed in an historical context. This
historical context was lacking with the two neutral groups in Study 4 (BGSU and UT alumni), and perhaps this is why the framing affect was attenuated for ratings of discrimination, and eliminated for ratings of fairness. In Study 5, a “target type” factor is included in order to allow for a direct comparison. Participants will read that the non-favored group is either African American employees (compared to Whites) or University of Toledo alumni (compared to Bowling Green alumni).

Participants

A total of 110 undergraduate students (37 males, 73 females) participated in exchange for course credit.\(^2\)

Materials and Procedure

All instructions and stimulus materials were presented to participants individually on PC computers using MediaLab (© 2004, Empirisoft, Inc.) experimentation software. All participants were informed that they would be reading a fictional scenario about a possible case of college-based or race-based employment discrimination, and were asked to imagine that it may be brought to a future civil trial. On the next computer screen, participants read a brief description of the scenario. Half of all participants read one of four scenarios in which promotions (a positively valenced outcome) were unequally distributed. 30 participants (n=16 in the disadvantage-based frame, n=14 in the advantage-based frame) read an exact replication of Study 3 involving White and African American employees (see Appendix C). 25 participants (n=14 in disadvantage-based frame, n=11 in advantage-based frame) read an exact replication of the conditions of

\(^2\) In Study 5, 12 participants indicated they were African American or mixed race, and an examination of all 6 cell means for which there was at least one data point revealed patterns inconsistent with the pattern of the larger sample. Thus, these 12 participants were removed from all further analyses.
Study 4 in which promotions were unequally distributed to Bowling Green State University (BGSU) and University of Toledo (UT) alumni (see Appendix D).

The remaining participants read one of four scenarios in which layoffs (a negatively valenced outcome) were unequally distributed. (See Appendix E for all four layoff scenarios presented in Study 5.) Participants (n=15) reading the scenarios involving White and African American employees read the following critical information in the disadvantage-based frame:

In 2003, decreasing revenue caused Ad-vert to lay off a percentage of its employees. Every employee who had been at the company for two years or less was a potential target. The Ad-vert management determined that of these junior employees, about half would have to be laid off.

The attorney looked at how many White and African-American junior employees were laid off in the year 2003. The attorney discovered that out of all the White junior employees at Ad-vert in 2003, approximately 50% were laid off. On the other hand, of all the African-American junior employees at Ad-vert in 2003, approximately 61% were laid off.

Participants (n=14) reading about White and African-American employees in the advantage-based frame read the following critical information:

In 2003, decreasing revenue caused Ad-vert to lay off a percentage of its employees. Every employee who had been at the company for two years or less was a potential target. The Ad-vert management determined that of these junior employees, about half would be able to avoid getting laid off.
The attorney looked at how many White and African-American junior employees survived the layoffs in the year 2003. The attorney discovered that out of all the African-American junior employees at Ad-vert in 2003, approximately 50% avoided being laid off. On the other hand, of all the White junior employees at Ad-vert in 2003, approximately 61% avoided being laid off.

Note that here, as with the positively valenced outcome (promotions) conditions, the same negative outcome disparity (layoffs) is framed either as a gain or a loss. In the disadvantage-based condition, the non-favored group (African Americans) loses because they are laid off more than would be expected, while Whites are laid off at an average rate. In the advantage-based condition, the favored group (Whites) gains because they have avoided being laid off more than would be expected. In this scenario, African American employees are also avoiding layoffs, but at an average rate.

Participants reading the layoff scenarios involving BGSU and UT alumni (n=14 in the disadvantage-based frame, n=12 in the advantage-based frame) read the same information as the participants reading about layoffs involving White and African American employees, but “BGSU graduates” was substituted for “White employees” and “UT graduates” was substituted for “African American employees”.

Dependent variables

Following presentation of the disparity scenario, participants were then asked to indicate on 7-point scales whether, and to what degree, the situation was perceived to be discriminatory. The primary dependent variable was composed of three separate judgments: the degree of discrimination (1 = no discrimination, 7 = high degree of discrimination), how strong the plaintiffs’ case would be (1 = very weak, 7 = very
strong), and how successful the plaintiffs would be at trial (1 = not at all successful, 7 = very successful). Participants were also asked to rate how fair the situation was (1 = not at all fair, 7 = very fair).

As in Study 4, additional variables were included to assess the degree to which participants believed the discrepant outcomes were intentionally caused by the company. Participants were asked the following question: Do you think that the pattern of White (BGSU) and African American (UT) promotions found by the attorney is due to the company’s intentional actions or policies? (1 = definitely not, 7 = definitely yes). Next, a question about the need for affirmative action policies at this company was included: Do you think that the company should begin giving special consideration to [target group] during the promotion process (in order to address their concerns about the company)? (1 = no, not at all, 7 = yes, very much so).

Results

The three measures of discrimination (degree of discrimination, strength of case, and likelihood of success) were averaged to form a single index of overall discrimination ($\alpha = .85$). The data were subjected to a 2 (frame) x 2 (outcome valence: positive or negative) x 2 (target type: African Americans or UT alumni) between groups analysis of variance.

*Overall discrimination ratings.* There was a main effect of frame, $F(1,102) = 5.24, p < .03, \eta^2 = .05$, a main effect of outcome $F(1,102) = 4.54, p<.04, \eta^2 = .04$, and a main effect of target, $F(1,102) = 7.34, p<.01, \eta^2=.07$, on ratings of discrimination. Consistent with previous studies, advantage-based disparities were rated less discriminatory overall ($M = 3.00, SD = 1.21$) than disadvantage-based disparities ($M =
Disparities involving layoffs were generally rated less discriminatory overall ($M = 3.02, SD = 1.27$) than disparities involving promotions ($M = 3.54, SD = 1.23$). Disparities involving African-American targets were generally rated more discriminatory overall ($M = 3.57, SD = 1.28$) than disparities involving university alumni targets ($M = 2.95, SD = 1.19$). However, these main effects were qualified by a significant frame x outcome interaction, $F(1,102)=4.56, p<.05, \eta^2 = .04$. For both types of targets, participants rated the advantage-based disparity as less discriminatory ($M = 2.99, SD = 1.27$) than the disadvantage-based disparity ($M = 4.00, SD = .99$) when the outcome was positively valenced (promotions), consistent with the previous studies. However, when the outcome was negatively valenced (layoffs) there was no difference in ratings of overall discrimination between the advantage-based disparity ($M = 3.01, SD = 1.27$) and the disadvantage-based disparity ($M = 3.02, SD = 1.37$) (see Figure 4.3).

![Figure 4.3](image-url)

*Figure 4.3. Mean ratings of overall discrimination (collapsed across target type), Study 5 (all ratings indicated on a 1-7 scale)*
There was no significant frame x target interaction on ratings of overall
discrimination, $F(1, 102) < 1$, nor was there a significant three-way interaction of frame x
target x outcome on ratings of overall discrimination. $F(1, 102) < 1$.

_Fairness ratings._ There was a significant main effect of frame on ratings of
fairness, such that advantage-based disparities were rated more fair ($M = 4.16$, $SD = 1.43$)
than disadvantage-based disparities ($M = 3.58$, $SD = 1.26$), $F(1, 102) = 5.20$, $p < .03$, $\eta^2 = .05$. There was no main effect of outcome or target on ratings of fairness. There was no
significant frame x outcome interaction on ratings of fairness, $F(1, 102) < 1$ (see Figure
4.4), no significant two-way interactions on ratings of fairness, and there was no
significant three-way interaction of frame x target x outcome on fairness ratings, $F(1, 102) < 1$.

Figure 4.4. Mean fairness ratings (collapsed across target type), Study 5 (all ratings
indicated on a 1-7 scale)
Two additional measures were included in Study 5 in order to measure whether the frame manipulation affected how participants assessed the cause of the discrepancy, specifically whether it was intentional or not and whether affirmative action-type policies should be implemented. Although not significant, participants were less likely to ascribe the discrepant outcomes to any intentional policies in the advantaged frame ($M = 2.59$, $SD = 1.42$) than in the disadvantaged frame ($M = 3.02$, $SD = 1.28$), $F(1, 102) = 2.50$, $p = .12$, $\eta^2 = .02$. There was no effect of target on ratings of intent. Participants were marginally more likely to ascribe the discrepant outcomes to intentional policies when the outcomes were positive ($M = 3.04$, $SD = 1.35$) than when the outcomes were negative ($M = 2.60$, $SD = 1.34$) $F(1,102) = 3.01$, $p = .09$, $\eta^2 = .03$. There were no other significant two- or three-way interactions of any factors on ratings of intent.

For the second measure, degree of endorsement of an affirmative action-type remedy, no main effects or interactions among the factors approached conventional levels of significance.

Discussion

In Study 5, the robust framing effect on ratings of discrimination found in Studies 1-4 was moderated to some extent by the valence of the outcome used to describe the workplace disparities. As with the previous studies, participants reading about disparate promotion outcomes rated the disparities as less discriminatory in the advantage-based frame (Whites or BGSU alumni receiving more than the expected number of promotions, while African Americans or UT alumni were receiving expected numbers of promotions) than in the disadvantage-based frame (African Americans or UT alumni receiving more promotion denials than expected, while Whites or BGSU alumni received an expected
number of promotion denials). When participants learned about disparities in the
distribution of a negatively valenced outcome, the framing effect on ratings of overall
discrimination disappeared, and both types of frames were perceived to be equally
discriminatory. However, ratings of fairness were not moderated by outcome valence;
only the familiar main effect of frame on ratings of fairness was significant, in that the
advantage-based conditions were generally rated more fair than the disadvantage-based
conditions. Finally, the framing effect was not moderated by type of target on ratings of
discrimination or fairness; the framing effect persisted both when a group with a known
history of discrimination was involved and when a group without a known history of
discrimination was involved.

Ratings of discrimination were moderated by outcome valence, but there was no
interaction of frame and outcome valence on fairness ratings, nor was there a main effect
of outcome valence on fairness ratings. This is an unexpected distinction between
discrimination and fairness when valence is added as a moderating factor. According to
the two-step model, judgments of fairness are most likely to be affected by a factor that
increases sensitivity to the advantage-based disparity, because fairness judgments are
more comparative and thus benefit from the greater attention paid to each groups’ relative
outcomes (the second step). The two-step model would also predict that judgments of
discrimination would be similarly affected due to increased attention to all groups’
outcomes. The pattern found in Study 5 indicates that judgments of discrimination, but
not judgments of fairness, are moderated by the valence of the outcome involved in the
discrepancy.
In order to understand these results, two additional pieces of evidence should be considered. First, it appears that fairness judgments were not entirely unaffected by outcome valence. Although not significant, there was a slight main effect of valence on fairness ratings, such that disparities involving layoffs were rated slightly more fair ($M = 4.00, SD = 1.37$) than disparities involving promotions ($M = 3.69, SD = 1.36$). Second, the overall discrimination ratings reveal a parallel main effect of outcome valence: disparities involving layoffs are rated significantly less discriminatory than disparities involving promotions. These results are partially at odds with the hypothesized effect of outcome valence on judgments. It was hypothesized that outcome valence would moderate the framing effect on ratings of discrimination and fairness, such that the advantage-based disparity would be rated equally discriminatory and unfair as the disadvantage-based disparity when described in terms of a negative outcome such as layoffs. Instead, it seems that outcome valence affected the framing effect in the opposite direction, such that ratings of discrimination and fairness with negative outcome disparities were rated equally as non-discriminatory and fair as the advantage-based disparities.

It is certainly surprising that equal-sized disparities between employee groups involving layoffs would generally be rated less discriminatory and more fair than disparities involving promotions. One possible explanation may be that participants are accustomed to hearing about employee layoffs that are often necessitated (as they were in the scenarios of Study 5) by decreasing revenue or poor economic conditions. Perhaps participants reason that this is a highly undesirable course of action which any company will undertake very carefully, ensuring as much fairness and lack of discrimination as
possible in the process in order to avoid legal repercussions. Recall that participants were
generally less likely to ascribe the negative outcome discrepancies to the company’s
intentional actions or policies.

For this explanation to be credible, it would follow that participants would view
layoff disparities as significantly less common than promotion disparities in the “real
world”. When participants were asked how common situations such as the one they had
just read are in real life, there was a significant interaction between frame and outcome.
Promotion disparities, as well as advantage-based layoff disparities, were rated equally as
common, but disadvantage-based layoff disparities were rated significantly less common.
Perhaps participants view situations in which one group is laid off at a higher rate than
another group as a rare occurrence that is probably inadvertent or can be legitimately
explained.

In Study 5, the valence moderator had its most pronounced effect on the
disadvantage-based disparity conditions. Simple main effects analyses of the frame by
outcome interaction on ratings of discrimination indicate that the significant interaction is
largely due to a significant drop in discrimination ratings in the disadvantage-based
disparity conditions. Disadvantage-based disparities were rated more discriminatory
when in the context of promotion decisions ($M = 4.0$), but less discriminatory when in the
context of layoffs ($M = 3.02$). The opposite effect does not occur in the advantage-based
disparity conditions ($M = 2.99$ and 3.01, respectively).

Put together, the evidence seems to indicate that negative outcome valence exerts
a moderating effect by altering the perception of disadvantage-based disparities; they are
rated less common and less discriminatory. These results support the prototype matching
explanation for the framing effect offered by the two-step theory. According to this theory, the first step is relatively easy and requires only that the observer recognize that a given disparity matches a “typical” discrimination scenario. In Studies 1-4, disadvantage-based disparities were more easily matched to a discrimination prototype than advantage-based disparities because the objective outcome of the disadvantaged group was below what would be expected: they were losing more promotions than they should.

As indicated by ratings of how common the scenarios were in Study 5, participants were especially unlikely to believe that disadvantage-based discrimination involving layoffs was very common, and as such these scenarios did not match their discrimination prototype(s). Therefore, these scenarios were rated equally as non-discriminatory as the advantage-based scenarios (which already do not match a discrimination prototype).

When reading about layoff scenarios, participants apparently drew a distinction between discrimination and fairness of the disparities. While disadvantage-based disparities involving layoffs were rated less discriminatory than disadvantage-based disparities involving promotions, participants still rated all disadvantage-based disparities as less fair than advantage-based disparities, regardless of outcome valence. Why did outcome valence not moderate the framing effect on ratings of fairness? Inferring from the discrimination ratings patterns, it appears that negative outcome valence did not moderate the framing effect via increased sensitivity (as hypothesized), but rather by simply decreasing the prototypicality of the disparities. While prototype matching is expected to affect ratings of the degree of discrimination present in any scenario, there is no reason to believe that it should also affect how fair the disparity is perceived to be. It
may be that the process underlying fairness judgments is more similar to my initial hypothesis about the process underlying discrimination judgments. That is, perhaps fairness is judged only by the objective outcome of the disadvantaged group, regardless of the other group’s outcomes. If this is the case, advantage-based disparities will always be judged more fair than disadvantage-based disparities.

Finally, the results of Study 5 allow me to rule out an alternative explanation for the framing effect found in Studies 1-3. There was a main effect of type of target (African American or UT alumni) on ratings of discrimination (scenarios involving African Americans were rated more discriminatory than those involving university alumni), but no main effect of target on ratings of fairness. It was possible that advantage-based disparities involving women or minorities were rated less discriminatory and more fair than disadvantage-based disparities because, historically, “average” treatment in these scenarios was enough of an accomplishment for these groups. However, in Study 5 disparities involving an historically disadvantaged group were actually rated more discriminatory overall, yet the same framing effect was found with this group and with a group without a history of discrimination. Thus, the historical context-based explanation for differential discrimination judgments is not sufficient to explain the framing effects obtained.
CHAPTER 5

CONCLUSION

To discriminate means simply to acknowledge some sort of difference between two people or groups of people, and thus to treat them differentially. In the context created by the civil rights era in the 1960s, discrimination specifically refers to a member of one social group (racial, religious, sexual) receiving less favorable treatment than an equally deserving counterpart who belongs to another social group. For example, Black police officers who had retired from state service in Georgia were earning $710 less per month on their pensions than White officers who had retired from the same service. As with any such disparity, there are exactly two ways this pension difference could have happened. First, it may have occurred because the White retirees were earning the full pensions they were entitled to (perhaps $4,000/month, to illustrate), while Black retirees were earning less than they were entitled to ($3,290/month) simply because they were Black. This kind of discrimination is the result of the disadvantage of one group (Black retirees) compared to another group (White retirees). The second way this pension disparity could have occurred is if Black retirees were earning the full pensions they were entitled to ($4,000/month), while White retirees were earning more than they were entitled to ($4,710/month) simply because they were White. This kind of discrimination
is the result of the advantage of one group (White retirees) compared to another group (Black retirees).

The studies contained in this dissertation were initiated because of my intuition that most people presented with the $710 figure would quickly assume that the former type of discrimination, based on Black disadvantage, was taking place. In reality, the $710 disparity was the result of the latter type of discrimination: White advantage, not Black disadvantage. Does this information change the fact that Black retirees were receiving less money than White retirees because of their race? Of course not—the disparity is exactly the same no matter how it was caused. But what Studies 1-5 repeatedly reveal is that advantage-based disparities are somehow perceived to be not quite as bad, not quite as unfair, not quite as discriminatory, as disadvantage-based disparities.

Summary of Studies

Study 1 was an initial, exploratory attempt to test the hypothesis that workplace disparities would seem subjectively less discriminatory when framed as one group’s advantage than when framed as the other group’s disadvantage. This hypothesis was derived largely from the logic of prospect theory (Kahneman & Tversky, 1979), specifically the subjective value function of gains and losses. If the same objective difference in outcomes (for example, earning a net income of $4,000/month or earning a net income of $4,710/month) is the result of a loss of $710, those $710 seem to be worth much more (and the disparity much larger) than they would be if the disparity was the result of a gain of $710. In the first case, the resulting $4,000 is a bitterly painful loss of money, but in the second case the resulting $4,710 is just a nice bonus. In prospect
theory, this effect is known as the principle of loss aversion. In Study 1, I hypothesized that if female employees of a fictional advertising agency were denied access to a favorable outcome (promotions) roughly 15% more often than their male counterparts (who were being denied promotions as frequently as would be expected in any company), participants would have little problem identifying that disparity as discriminatory. However, if male employees were granted access to the same favorable outcome (promotions) roughly 15% more often than their female counterparts (who had access to promotions as frequently as would be expected in any company), participants would rate the disparity as less discriminatory. In the first disadvantage-based scenario, the 15% disparity is due to females losing promotions more often than they should. In the second advantage-based scenario, the 15% disparity is due to males gaining promotions more often than they should. As hypothesized, participants rated the advantage-based disparity as significantly less discriminatory than the disadvantage-based disparity. Participants also rated the advantage-based disparity slightly (but not significantly) more fair than the disadvantage-based disparity.

Having established the effect in one employment context, Study 2 was designed to refine Study 1 and replicate it in varying contexts. Because the absolute numbers used to describe the 15% disparity in each condition of Study 1 were different, the numbers used in each scenario of Study 2 were held constant across all conditions. An additional factor of employment context was also added to Study 2. Male and female employees were again the relevant groups, and half of the scenarios occurred in a relatively sex-neutral advertising agency context. Half of the scenarios occurred in the sex-stereotyped context of a construction company, where discrimination against females might be
expected and perhaps more easily recognized under both disparity frames. However, employment context did not moderate the framing effect, which was replicated in Study 2. Participants again rated the advantage-based disparities significantly less discriminatory than the disadvantage-based disparities. In addition, participants rated the advantage-based disparities as significantly more fair than the disadvantage-based disparities.

Study 3 replicated the framing effect found in Studies 1 and 2, even with a change in the relevant employee groups. Instead of male and female employees, White and African-American employees of an advertising agency were the two groups involved in each scenario. All other details were identical to the advertising agency context conditions of Study 2. Not only was the advantage-based disparity rated significantly less discriminatory and more fair than the disadvantage-based disparity, participants were also less likely to attribute the advantage-based disparity to intentional company policies, and they were less likely to endorse an affirmative action remedy at the company.

The robustness and breadth of the framing effect thus established, I turned my attention to fitting this effect into a theoretically meaningful framework, and in so doing, I began to search for logical moderators of the effect. To begin, it is obvious that disadvantage-based disparities hew much more closely to our prototype of what a discriminatory outcome “looks like.” It requires much less attention and effort to recognize a disadvantage-based disparity as discrimination because it matches the prototype; advantage-based disparities do not match the discrimination prototype, and without additional attention to the relative outcomes of both groups, it is not a clear case of discrimination. Perhaps this second comparison step can be prompted by simply
increasing attention or sensitivity to all information in each scenario. Increased attention or sensitivity was hypothesized to increase recognition of discrimination in advantage-based disparities because it would facilitate the second step needed to fully appreciate the inequality resulting from disproportionate advantage. Participants paying closer attention to this type of disparity would look beyond the typical, average outcomes of the lower-status group and note that this group is still at a significant disadvantage when compared to the outcomes of the higher-status group.

Involvement of the participants’ own ingroup was hypothesized to increase attention to the fictional employment disparity in Study 4. All participants were undergraduate students at Ohio State University (OSU) who are regularly encouraged to identify strongly with their university. Thus, the relevant groups involved in the employment disparities in Study 4 were manipulated as a three-level factor: OSU graduates favored at the advertising agency, OSU graduates not the favored group at the advertising agency, or OSU graduates uninvolved (two other university alumni groups involved). Two hypotheses were possible: either the increased attention produced by OSU involvement would prompt the second comparative step regardless of OSU’s position at the company (favored or non-favored), or the increased attention would at least prompt the second step when OSU was not favored in the company. The design of Study 4 also allowed a replication in the control condition (using two other university alumni groups) of the framing effect using employee groups who did not belong to groups that have a history of discrimination in the United States (women and African-Americans).
Unexpectedly, ingroup involvement did not moderate the framing effect. Even when OSU was not the favored alumni group in the workplace, advantage-based disparities were rated less discriminatory and more fair than disadvantage-based disparities. This effect persisted despite the demonstrated effectiveness of the moderator; participants were significantly more sensitive to both types of disparities when OSU was not the favored alumni group, an indication that they were sensitive to the status of OSU alumni compared to the other alumni at the company. Apparently, however, this increased sensitivity was not enough to prompt a closer examination of the relative outcomes of each group.

Another unexpected finding of Study 4 was that, in the control condition in which two other university alumni were involved in the disparities, the framing effect was found for ratings of overall discrimination but not for ratings of fairness. Unlike Studies 1-3, these groups did not have a history of discrimination, so in the interest of continuing to explore the effect of type of group involved in the disparity, type of target was included as a factor manipulated in Study 5.

Study 5 was a test of another moderator hypothesized to increase sensitivity to the inequality resulting from advantage-based disparities. The valence of the outcome involved in all scenarios in Studies 1-4 was positive: promotions were granted or denied at different rates. This focus on positively-valenced outcomes such as promotions or money is consistent with most research in prospect theory, but the logic of prospect theory is just as applicable to advantage or disadvantage based on negatively valenced outcomes such as fatalities or discomfort. Negatively valenced outcomes are subject to the same prospect theory effects as positively-valenced outcomes, but negative outcomes
are not evaluated in the same way as positive outcomes by people who must allocate these outcomes to others. Past research examining ingroup favoritism in resource allocation has consistently found that people are quite willing to distribute more positive resources (money or tokens) to ingroup members than to outgroup members. However, when negative resources, such as time spent cleaning or aversive noise, must be distributed, people are unwilling to display ingroup favoritism by allocating more of these resources to outgroup members. It is evident that negative resource allocation gives participants pause and encourages a re-evaluation of the appropriateness of ingroup favoritism.

In Study 5, I hypothesized that participants would take a similar pause when learning of negative outcomes that are unequally distributed at an advertising agency. If participants are learning about advantage-based disparities in the distribution of layoffs rather than promotion, they will be more sensitive to the relative outcomes of both employee groups, and will rate these scenarios equally as discriminatory and unfair as all disadvantage-based scenarios.

The results of Study 5 indicated that type of target (university alumni or African Americans) did not moderate the framing effect; discrimination and fairness ratings were similar when either type of group was involved in an employment disparity. Valence of the outcome (promotions or layoffs) did significantly moderate the framing effect in an unexpected way. When disparities were framed in the context of promotions, the framing effect found in previous studies was replicated. When disparities were framed in the context of layoffs, there was no significant effect of frame on participants’ ratings of discrimination: both types of disparities were rated equally non-discriminatory (below the
scale midpoint). However, valence of outcome did not moderate how fair each type of discrepancy seemed: even when layoffs were unequally distributed, participants still rated advantage-based disparities as more fair than disadvantage-based disparities. This pattern may have resulted in part from how common each of the four scenarios was perceived to be by participants. Both of the promotion scenarios and the advantage-based layoff scenario were rated as relatively common, but the disadvantage-based layoff condition was rated significantly less common.

These last ratings in particular may illuminate why outcome valence was the only moderator of the framing effect on perceived discrimination in these studies. Participants evidently perceive layoffs that affect one group more than another as a relatively rare occurrence. Disadvantage-based disparities involving layoffs are apparently not prototypical of discrimination in most people’s minds. Because the situation did not match a discrimination prototype, it was rated just as non-discriminatory as the advantage-based disparities that also do not fit a discrimination prototype.

The question that inevitably arises is why layoff-based disparities are perceived to be less common and less prototypical than promotion-based disparities in the workplace. Perhaps this pattern of results can be explained because the outcome valence moderator had the desired effect after all. Participants were more sensitized to the disparity in both frames when layoffs were involved, and they concluded that such a glaring discrepancy would not have resulted without acceptable justification. This explanation is bolstered by participants’ marginally significant tendency to ascribe more discriminatory intent to the company when promotions were involved than when layoffs were involved. It may be that participants share with legal scholars an awareness that blatant forms of
discrimination are rarely practiced by 21st century employers, and the presence of such an obvious layoff-based disparity must therefore have a legal and legitimate explanation that has nothing to do with discriminatory intent.

The problem with this account of the outcome valence effect is that, in explaining why layoff-based disparities do not match participants’ discrimination prototypes, it contradicts the effortless prototype-matching account of the framing effect found in Studies 1-4. If participants are taking the time to reason that layoff-based disparities are too blatant to be the result of unabashed discrimination, the energy that is presumably saved by a simple prototype match has already been spent. However, these two prototype-based explanations can be reconciled if we accept that prototype matching does not necessarily have to be an effortless task. Unlike Studies 1-4, in which prototype mismatches were relatively easy to identify, the negatively valenced outcomes in Study 5 had the desired effect of increasing scrutiny of the disparities. Unexpectedly, this increased scrutiny may have resulted in a conclusion that there must be a good explanation for such an obvious disparity that has nothing to do with discrimination. Therefore, the prototype mismatch occurred because of, not in spite of, the increased scrutiny prompted by negative outcome valence. The two-step model thus can explain the results of Study 5, albeit for an unanticipated reason.

Fairness versus Discrimination

Although there was no a priori hypothesis for the effect of frame on ratings of the fairness of each situation, it was reasonable to assume that as discrimination and fairness are highly negatively correlated (and the results of all five studies corroborate this assumption), frame would significantly affect judgments of fairness to the same (inverse)
extent as it would influence judgments of discrimination. As expected, the results of Study 2, Study 3, and the OSU-involved conditions of Study 4 revealed that advantage-based disparities were rated significantly more fair than disadvantage-based disparities. In Study 1, this pattern was also found, but it was not statistically significant. In Study 4, fairness ratings were unaffected by frame when two non-OSU alumni groups were involved in the employment disparity. In Study 5, fairness ratings were not moderated by outcome valence; advantage-based disparities involving layoffs were rated more fair than disadvantage-based disparities involving layoffs, despite the fact that both layoff conditions were rated equally non-discriminatory.

The fairness ratings found in Studies 1-5 are not consistent and it is difficult to draw any solid conclusions about why they mirrored the discrimination ratings under some conditions but not others. I had hypothesized that fairness ratings require a comparative judgment of one group’s outcomes to those of another group, and therefore moderators that increase attention or scrutiny to group-based disparities should make advantage-based disparities seem just as unfair as disadvantage-based disparities. There is some evidence that this occurred for ratings of fairness when the employee groups involved in the scenario were non-OSU university alumni (although discrimination ratings were still affected by frame), but not when negative outcomes (layoffs) were involved (even though discrimination ratings were moderated by outcome valence).

In general, the framing effect on fairness ratings was as robust as the framing effect on discrimination, but perhaps for a different reason. Recall that it was only in Study 5 that a moderator for the framing effect on discrimination ratings was found: negatively-valenced outcomes led participants to rate all disparities as relatively non-
discriminatory. The effect of frame on fairness, however, was resistant to this moderator, and in particular the disadvantage-based disparity involving layoffs was rated significantly less fair than the advantage-based disparity involving layoffs (if the fairness ratings had been moderated in the same way as the discrimination ratings, then we would expect both layoff scenarios to be rated equally fair). This small piece of evidence is suggestive of the possibility that fairness judgments do not require as much comparative attention to relative outcomes as I had originally assumed. Participants in these studies were only provided with outcome information, not process information, and the latter might reveal more about an employer’s motives and is often factored into judgments of fairness (e.g., Walker, LaTour, Lind, & Thibaut, 1974) because comparative outcome information is often unknown in employment contexts. Armed with comparative outcome information, fairness heuristic theory (Van den Bos, Lind, Vermunt, & Wilke, 1997) predicts that this information alone will be sufficient to establish the participant’s subjective heuristic of what is “fair.”

What these studies might add to the fairness heuristic theory is a sense of what influences one’s subjective fairness heuristic. Generally, in Studies 1-5, every disadvantage-based scenario was rated less fair than every advantage-based scenario. Perhaps subjective fairness, like discrimination, is assessed in a single, simple step: is one group clearly “suffering” a loss? If so, then the disparity is relatively unfair. If no group is clearly experiencing a loss, the disparity is relatively fair. In other words, fairness may in some cases be a very literal judgment that is actually insensitive to intergroup comparisons—the mere presence of disadvantage may be sufficient for a situation to qualify as unfair.
Implications and Future Directions

The cumulative effect of these studies is to answer a question that had not previously been asked, and consequently to open up a host of follow-up questions—these studies raise as many questions as they answer. The new question that was addressed was whether discrimination based on disproportionate advantage was somehow less visible or subjectively less severe than an equivalent disparity based on disproportionate disadvantage. The answer provided by all five studies is a resounding “Yes.” But why is this effect so robust? It is tempting to conclude that the loss aversion principle of prospect theory parsimoniously explains the results of all five studies: losses loom larger than gains. But the unusual results of Study 5 suggest that, at the very least, loss aversion has boundaries in the context of employment discrimination. In Study 5, losses of negative outcomes loomed significantly less than losses of positive outcomes when participants were assessing discrimination (but not when assessing fairness). This pattern hints at the possibility that factors other than the subjective utility function can affect how gains and losses are construed. Did participants calculate that disproportionate losses involving a negative outcome were unlikely to be due to discrimination in a modern employment context? It also appears that discrimination and fairness are similar but not identical judgments. What exactly distinguishes the nature of each of these judgments, and can prospect theory alone explain the slightly different results found for each?

Aside from the interesting questions raised by the current studies, a multitude of other lines of inquiry are possible. For example, could it be that if the size of the disparity in both frames had been slightly larger than 11% (15% in Study 1), even the advantage-based disparity would have seemed equally discriminatory and unfair? What if the
outcome disparity had not been described in terms of promotions or layoffs, but in terms of accounts won, contracts received, or vacation days earned?

What if the disparity had been reversed in Studies 1, 2, 3, and 5, and women or African-Americans were clearly favored in the company over males or Whites? As casual observers, participants reading about these “reverse discrimination” scenarios might find that an entirely different affirmative action prototype is activated. Because perceptions of affirmative action vary depending on one’s political value orientation, the influence of this prototype on judgments of discrimination might depend on each participant’s general attitude toward policies meant to resolve past inequality. It would be especially informative to examine how an affirmative action prototype would influence processing of an advantage-based disparity in which women or minorities benefit from additional favorable outcomes while males and whites receive fair, neutral outcomes. This frame most closely resembles how affirmative action policies are supposed to be implemented in the workplace—affirmative action is ideally supposed to provide extra assistance and consideration to members of historically disadvantaged groups but not actively disadvantage other groups.

A supporter of reparative policies like affirmative action might judge the advantage-based scenario involving “reverse discrimination” to be an ideal prototype of affirmative action, and therefore not see any discrimination whatsoever. In addition, a supporter might judge the disadvantage-based scenario (males and Whites at a disadvantage while women and minorities receive neutral outcomes) as less than ideal, yet consistent with the long-term goals of affirmative action policies. The result may be
that, for affirmative action supporters, the framing effect would be attenuated or even eliminated, with both scenarios judged equally non-discriminatory and fair.

An opponent of affirmative action policies, however, might interpret the close prototype match of the advantage-based frame and apparent affirmative action very differently. To an opponent, this situation would seem to be an excellent example of exactly why such policies are highly discriminatory and unfair, and it is possible the advantage-based frame would be judged equally as discriminatory as the disadvantage-based frame of the same disparity. Thus, the framing effect might also be eliminated for opponents of affirmative action, but in the opposite direction. Opponents might rate each scenario equally discriminatory and unfair. In other words, including attitudes toward affirmative action as a factor in a “reverse discrimination” framing study might eliminate the framing effect and only produce a main effect of attitudes toward affirmative action.

Another interesting avenue worth exploring is the use of an outcome other than employment promotions in future studies. Promotions were chosen specifically because they are not generally considered zero-sum; the “typical” promotion rates provided to participants referred to the frequency of promotions for all employees at all levels across many similar workplaces. The outcomes of the favored group and the non-favored group were defined relative to this rather abstract reference point. Of importance, the scenarios were not described as competitions between men and women or Whites and African-Americans.

If the disparities in workplace outcomes had been framed as zero-sum situations, participants might have learned, for example, that an employer had only a certain amount of money in its budget to allocate to promotions that year, and only X number of
employees could be promoted. Due to budgetary constraints, 50% of all qualified female applicants were granted promotions, and 61% of all qualified male applicants were granted promotions (advantage-based frame). In the disadvantage-based frame, participants would learn that, due to budgetary constraints, 50% of all qualified male applicants were denied promotions, and 61% of all qualified female applicants were denied promotions.

In these scenarios, participants would know that each “extra” successful male was promoted instead of a female applicant (advantage-based frame), or that each “extra” unsuccessful female applicant was probably passed over in favor of a male applicant (disadvantage-based frame). Would this “either-or” situation heighten the salience of the inequality, regardless of frame? According to the two-step model I have proposed, increased salience should enhance the perceived discrimination in the advantage-based frame and both scenarios would seem equally discriminatory. On the other hand, this heightened attention might also lead participants to process the information in the same way that they might have processed the information in Study 5 when layoffs, not promotions, were involved. Specifically, they might reason that when an employer is in the uncomfortable position of being unable to promote all qualified and deserving applicants, it may take extra care to carefully scrutinize each employee’s record without bias or favor. In that case, each scenario might be rated equally non-discriminatory. The difficulty of the employer’s position might lead participants to conclude that any disparities were the unplanned byproduct of careful, impartial decision-making.

It is unclear in Studies 1, 2, 3, and 5 whether participants were taking the perspective of one employee group or the other depending on the frame condition they
were reading. It may be that something about the disadvantage-based frame led participants to take the perspective of the non-favored group, while the advantage-based frame led participants to take the perspective of the favored group. This speculation is prompted by Eibach and Keegan’s (2006) finding that Whites perceive greater progress toward racial equality than African-Americans because Whites construe progress in terms of a loss to their status, while African-Americans view progress in terms of gains to their status. Consistent with prospect theory, losses are experienced more intensely than gains of the identical magnitude, and this subjective value function might explain why Whites seem to believe that much more progress has been made over the last several decades than African-Americans (Eibach & Keegan, 2006).

Perhaps reversing this logic can explain the framing effect. Placing participants in the domain of gains in the advantage-based frame led participants to take the perspective of the favored group receiving above-average treatment, precisely because there is a “match” between the domain of gains and being in a favored position. From the favored group’s perspective, gains are expected but not experienced very intensely. In the disadvantage-based frame, however, participants may have been led to the non-favored group’s perspective because of the match between the domain of losses and being in a non-favored position. From the non-favored group’s perspective, losses are expected and experienced more intensely.

It is possible that the framing effect is simply due to a lack of understanding of how advantage-based disparities can lead to disadvantage, particularly when the non-favored group is receiving the expected, neutral treatment. This explanation could be tested by somehow priming participants before they read the scenario with an “unrelated”
situation or story involving someone who suffered as a result of receiving merely
standard treatment, or someone who was singled out for preferential treatment and reaped
the rewards of his or her disproportionate advantage. If participants are aware at some
level of the disabling effects of any disparity, regardless of how the disparity is caused,
perhaps the framing effect will be attenuated. Another priming method might involve
participants completing a relatively simple two-step arithmetic task with simple
subtraction and addition equations. All equations would be in the form of “[number] - X
= [number]”. Participants first have to solve for X in each subtraction equation, and then
they must calculate the sum when X is added to the first number in the original
subtraction equation. (For example, 17 – X = 12. X = 5, and 17 + 5 = 22.) These two
calculations performed together may be a very literal means of priming participants with
the idea that a numerical difference between two amounts can be the result of a loss or a
gain from a neutral starting point.

Whatever the reason, it is evidently difficult to imagine how too much of a good
thing can be a bad thing. Discrimination involving disproportionate advantage to one
favored group is just as likely to depress the fortunes of the other group as discrimination
involving disproportionate disadvantage suffered by one non-favored group. In the
context of these studies, a disproportionate number of males or Whites, or alumni of a
particular university may be receiving promotions that could have gone to female
employees, African American employees, or alumni of another university. Perhaps
recognizing advantage-based discrimination requires one to be a fortune teller, able to
look into the future and envision the long-term consequences of this disparity. Over time,
the advantage of the favored group may self-perpetuate, and the favored employees with

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higher status will legitimately gain increasing access to more lucrative accounts or clients, are afforded more professional networking opportunities, may be allowed more latitude for error, and in general are better positioned to reap the benefits of their own success. By that time disadvantage will be easy to spot, but, ironically, it will be so firmly entrenched by legitimate business practices that any attempt to reverse the disparity will itself be viewed as unfair. It is therefore highly important to learn how to enhance understanding of advantage-based discrimination, before time enables it to become fully camouflaged in the workplace.
LIST OF REFERENCES


*Foster v. Dalton, 71 F.3rd 52 (1st Cir. 1995).*


APPENDIX A

MATERIALS USED IN STUDY 1 (BY CONDITION)

Disadvantage-based frame:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 65%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 79% were denied promotions, a figure higher than the average of 65%. On the other hand, male employees up for promotion at Ad-vert were denied promotions roughly 64% of the time, an average rate of promotion denials.

Advantage-based frame:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 35%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 36% received promotions, an average rate of promotions. On the other hand, male employees up for promotion at Ad-vert received promotions roughly 50% of the time, an above-average rate of promotions.
APPENDIX B

MATERIALS USED IN STUDY 2 (BY CONDITION)

Disadvantage-based frame, neutral employment context:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, male employees up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

Advantage-based frame, neutral employment context:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the female employees up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, male employees up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.
Disadvantage-based frame, stereotype-congruent employment context:

An attorney is reviewing the employment and promotion records of a national construction company called Hopkins Partners. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Hopkins Partners at least once in the last 10 years.

An examination of four similar-sized construction companies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the female employees up for promotion at Hopkins Partners, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, male employees up for promotion at Hopkins Partners were denied promotions roughly 50% of the time, an average rate of promotion denials.

Advantage-based frame, stereotype-congruent employment context:

An attorney is reviewing the employment and promotion records of a national construction company called Hopkins Partners. This attorney is looking for evidence of sex-based employment discrimination.

The attorney focused on both male and female employees who had been up for promotion at Hopkins Partners at least once in the last 10 years.

An examination of four similar-sized construction companies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the female employees up for promotion at Hopkins Partners, approximately 50% received promotions, an average rate of promotions. On the other hand, male employees up for promotion at Hopkins Partners received promotions roughly 61% of the time, an above-average rate of promotions.
Disadvantage-based frame:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of race-based employment discrimination.

The attorney focused on both White and African-American employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the African-American employees up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, White employees up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

Advantage-based frame:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of race-based employment discrimination.

The attorney focused on both White and African-American employees who had been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the African-American employees up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, White employees up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.
APPENDIX D

MATERIALS USED IN STUDY 4 (BY CONDITION)

Disadvantage-based frame, OSU advantaged:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Ohio State (OSU) and employees who had graduated from Indiana University (IU) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the IU graduates up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, OSU graduates up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

Advantage-based frame, OSU advantaged:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Ohio State (OSU) and employees who had graduated from Indiana University (IU) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the IU graduates up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, OSU graduates up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.
Disadvantage-based frame, OSU disadvantaged:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Ohio State (OSU) and employees who had graduated from Indiana University (IU) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.

The attorney discovers that of the OSU graduates up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, IU graduates up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

Advantage-based frame, OSU disadvantaged:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Ohio State (OSU) and employees who had graduated from Indiana University (IU) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the OSU graduates up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, IU graduates up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.

Disadvantage-based frame, OSU uninvolved:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Bowling Green (BGSU) and employees who had graduated from University of Toledo (UT) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average failure rate for promotions is about 50%.
The attorney discovers that of the UT graduates up for promotion at Ad-vert, approximately 61% were denied promotions, a figure higher than the average of 50%. On the other hand, BGSU graduates up for promotion at Ad-vert were denied promotions roughly 50% of the time, an average rate of promotion denials.

Advantage-based frame, OSU uninvolved:

An attorney is reviewing the employment and promotion records of a regional advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

The attorney focused on employees who had graduated from Bowling Green (BGSU) and employees who had graduated from University of Toledo (UT) who been up for promotion at Ad-vert at least once in the last 10 years.

An examination of four similar-sized advertising agencies indicates that, across all levels of management, the average success rate for promotions is about 50%.

The attorney discovers that of the UT graduates up for promotion at Ad-vert, approximately 50% received promotions, an average rate of promotions. On the other hand, BGSU graduates up for promotion at Ad-vert received promotions roughly 61% of the time, an above-average rate of promotions.
APPENDIX E

MATERIALS USED IN STUDY 5 (BY NEGATIVELY VALENCE OUTCOME CONDITION)

Disadvantage-based frame, African Americans disadvantaged:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of race-based employment discrimination.

In 2003, decreasing revenue caused Ad-vert to lay off a percentage of its employees. Every employee who had been at the company for two years or less was a potential target. The Ad-vert management determined that of these junior employees, about half would have to be laid off.

The attorney looked at how many White and African-American junior employees were laid off in the year 2003. The attorney discovered that out of all the White junior employees at Ad-vert in 2003, approximately 50% were laid off. On the other hand, of all the African-American junior employees at Ad-vert in 2003, approximately 61% were laid off.

Advantage-based frame, African Americans disadvantaged:

An attorney is reviewing the employment and promotion records of a national advertising agency called Ad-vert, Inc. This attorney is looking for evidence of race-based employment discrimination.

In 2003, decreasing revenue caused Ad-vert to lay off a percentage of its employees. Every employee who had been at the company for two years or less was a potential target. The Ad-vert management determined that of these junior employees, about half would be able to avoid getting laid off.

The attorney looked at how many White and African-American junior employees survived the layoffs in the year 2003. The attorney discovered that out of all the African-American junior employees at Ad-vert in 2003, approximately 50% avoided being laid off. On the other hand, of all the White junior employees at Ad-vert in 2003, approximately 61% avoided being laid off.
Disadvantage-based frame, university alumni disadvantaged:

An attorney is reviewing the employment and promotion records of an Ohio-based advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

A majority of Ad-vert’s employees graduated from multiple Ohio colleges and universities. The attorney looked at how many junior employees who graduated from Bowling Green State University or the University of Toledo were laid off in the year 2003. The attorney discovered that of all the junior employees from Bowling Green at Ad-vert in 2003, approximately 50% were laid off. On the other hand, of all the junior employees from the University of Toledo at Ad-vert in 2003, approximately 61% were laid off.

Advantage-based frame, university alumni disadvantaged:

An attorney is reviewing the employment and promotion records of an Ohio-based advertising agency called Ad-vert, Inc. This attorney is looking for evidence of college-based employment discrimination.

In 2003, decreasing revenue caused Ad-vert to lay off a percentage of its employees. Every employee who had been at the company for two years or less was a potential target. The Ad-vert management determined that of these junior employees, about half would be able to avoid getting laid off.

A majority of Ad-vert’s employees graduated from multiple Ohio colleges and universities. The attorney looked at how many junior employees who graduated from Bowling Green State University or the University of Toledo survived the layoffs in the year 2003. The attorney discovered that of all the junior employees from University of Toledo at Ad-vert in 2003, approximately 50% avoided being laid off. On the other hand, of all the junior employees from Bowling Green at Ad-vert in 2003, approximately 61% avoided being laid off.