

## *“Discrimination” versus “Unfair Treatment”: Measuring Differential Treatment and its Association with Health\**

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There is consistent evidence of the health-harming effects of discrimination. However, it remains unclear whether discrimination contributes to persistent racial and ethnic health disparities. One hindrance to documenting the association between discrimination and health disparities is ongoing methodological issues, particularly the role of question wording in assessing self-reports of discrimination. Using two nationally representative surveys, we investigate whether the prevalence, distribution, and mental and physical health consequences of differential treatment vary by question wording—“discrimination” versus “unfair treatment.” We find that “unfair treatment” yields greater reports of everyday forms of differential treatment relative to reports of “discrimination,” while the latter yields greater reports of major forms of differential treatment. In addition, the negative effect of “unfair treatment” on mental health is stronger than that of “discrimination,” while the latter has a stronger negative effect on physical health. However, the effect of question wording on reports of differential treatment and its association with health is largely unique to non-Hispanic whites. We conclude that unfair treatment and discrimination reflect distinct concepts that should not be used interchangeably.

### Introduction

Prior research has yielded mixed evidence regarding the extent to which self-reported interpersonal discrimination contributes to racial and ethnic disparities in mental and physical health (Schnittker and McLeod 2005). Some scholars have found that discrimination contributes a great deal to explaining racial and ethnic health disparities (Bratter and Gorman 2011; Lewis, Cogburn, and Williams 2015; Schafer and Ferraro 2011), while others find little evidence that these experiences contribute to these disparities (Jackson, Williams, and Torres 2002; Kessler, Mickelson, and Williams 1999; Taylor and Jay Turner 2002). One potential hindrance to documenting the association between discrimination and health disparities is lingering methodological issues in discrimination research. Chief among these issues is *how* to effectively measure self-reported discrimination.

While discrimination researchers increasingly use varied terminology to measure discrimination (Grollman and Hagiwara 2017), preliminary research suggests that different terms yield different estimates for the prevalence and

distribution of discrimination because they capture distinct experiences (Barkan 2017; Brown 2001; Chae et al. 2008; Gomez and Trierweiler 2001). Further, little research has determined how differences in question wording could, in turn, affect the estimated health consequences of discrimination. The goal of the current study is to investigate whether and how question wording is differentially associated with (1) the amount of self-reported experiences of discriminatory or unfair treatment (hereafter collectively referred to as “differential treatment”) and (2) mental and physical health.

### Background

The primary barrier to effectively measuring the experience of differential treatment is researchers’ inability to obtain *in situ* observations of such experiences; that is, it is extremely difficult, if not impossible, for researchers to objectively observe discrimination when it occurs. Thus, discrimination researchers most commonly rely on self-report measures of personal experiences of differential treatment (Pascoe and Richman 2009). Self-report measures of differential treatment are advantageous in their efficient, low-cost use with large, representative samples relative to other methods such as audit studies, ethnography, and interviews.

However, self-report measures are not without their limitations (see Krieger et al. 2005; Krysan and Couper 2003; Pager and Shepherd 2008; and, Williams and Mohammed 2009 for reviews). Scholars argue that the chief weakness of self-report measures is that respondents may over- or underreport their experience of differential treatment (Major, Quinton, and McCoy 2002; Pager and Shepherd 2008; Quillian 2006). Respondents may overreport exposure to differential treatment—that is, relative to the objective amount of such treatment—due to their hesitation to admit that such experiences never occur to them; this is of particular concern among individuals of marginalized groups. Respondents may underreport how often they experience differential treatment because they do not consider some seemingly unfair experiences to be severe enough to qualify as “discrimination” or because the social group basis for discrimination (e.g., racial identity) is ambiguous (Smith 2002; Williams and Mohammed 2009; Williams and Neighbors 2001).

One common way to address the concerns about the over- or underreporting of differential treatment is to specify the basis of differential treatment (e.g., race, gender) in one of two ways. In the “one-stage approach,” respondents are asked explicitly about experiences of differential treatment based on a certain social group membership in a single question; for example, “Were you ever fired from a job because of your race?” In contrast, in the “two-stage approach,” respondents are first asked to report whether they have experienced differential treatment in general and then to attribute their experiences to

particular social group membership upon which the differential treatment occurred (see Krieger 2014 for a review). Recent research has shown that the two-stage approach yields higher, and perhaps more accurate, estimates of experiences of differential treatment, as compared to the one-stage approach (Krieger 2012, 2014; Lewis, Cogburn, and Williams 2015; Shariff-Marco et al. 2011).

A second way that scholars have addressed the problem of over- and underreporting of differential treatment is to alter the question wording used in surveys. Williams and his colleagues suggest that researchers should move away from the “emotionally charged language” of discrimination (Williams and Mohammed 2009:31), instead using more neutral, generic language to refer to differential treatment (Williams and Neighbors 2001). They argued that neutral terms, such as “unfair treatment,” would yield more accurate estimates of the prevalence of differential treatment, specifically minimizing the potential of underreporting the experiences of discrimination (Williams and Mohammed 2009).

However, discrimination and unfair treatment may reflect distinct sets of experiences. As Krieger (2014) argues, “random acts of unfair treatment do not constitute discrimination. Instead, discrimination is a socially structured and sanctioned phenomenon, justified by ideology and expressed in interactions among and between individuals and institutions, that maintains privileges for members of dominant groups at the cost of deprivation for others” (p. 69). Although unfair treatment and discrimination are both experienced as threats to fairness and equality (Williams et al. 2012), the former may be based upon characteristics or behaviors that are unique to the individual victim (e.g., personality), while the latter is based upon an individual’s identities or social group memberships (Bastos et al. 2017; Chae et al. 2008).

Indeed, preliminary evidence suggests that unfair treatment and discrimination may yield different estimates of the prevalence of differential treatment. One study that used small samples of college students documented that black individuals and white women reported more day-to-day forms of differential treatment when asked about “discrimination” compared to “unfair treatment” based on race and gender, respectively (Gomez and Trierweiler 2001). Another study of black Americans found similar results, wherein approximately one-quarter of respondents reported major instances of race-based discrimination but not unfair treatment (Brown 2001). Further, in a study of Asian Americans, Chae et al. (2008) found that half of respondents reported unfair treatment but no racial discrimination, while 30 percent reported experiencing racial discrimination but not unfair treatment. Thus, these preliminary studies cast doubt about Williams and Neighbors’s (2001) prediction that the generic terminology of “unfair treatment” would yield greater reports of differential treatment.

Further, they suggest that unfair treatment and discrimination may be understood by some as entirely different experiences. As such, we predict that use of the terms “unfair treatment” and “discrimination” will solicit different rates of self-reported differential treatment, in part, because these terms reflect different experiences.

Hypothesis 1: Respondents will report significantly greater levels of “discrimination” compared to reports of “unfair treatment.”

Other preliminary research suggests that the aforementioned effect of question wording may be further moderated by participant race and ethnicity. In his 2017 study, Barkan compared the percent of non-Hispanic black and non-Hispanic white respondents in the 1995–1996 MIDUS and 2001–2003 National Survey of American Life (NSAL) who report everyday “discrimination” and everyday “unfair treatment,” respectively. While the percent of black respondents reporting everyday differential treatment was mostly comparable across surveys, there were significantly more white NSAL respondents reported “unfair treatment” relative to white MIDUS respondents’ reports of “discrimination.” Barkan concluded that explicit reference to “discrimination” in questions about differential treatment may depress whites’, but not blacks’, reports of such experiences. However, Barkan’s analyses are hindered by methodological and sampling limitations. His study relies on two datasets that were collected five years apart. Further, white NSAL respondents were drawn from predominantly black neighborhoods, limiting the generalizability of the findings to the overall white population in the United States. Finally, his comparison of the two surveys does not control for potential confounding variables or differences in the survey designs and sampling procedures. Thus, the differences in percentages of self-reported differential treatment cannot be definitively attributed to differences in question wording. Nonetheless, Barkan’s study is a pivotal first step in documenting potential racial differences in the effect of question wording on self-reports of differential treatment.

Hypothesis 2: Non-Hispanic white respondents will report significantly more “unfair treatment” than “discrimination.” However, respondents of color will report similar levels of “unfair treatment” and “discrimination.”

A final issue regarding question wording is whether the associations between self-reported “discrimination” and health and that between self-reported “unfair treatment” and health are equivalent. Findings from prior research are mixed. For example, in Brown’s (2001) study of black adults, only race-based “unfair treatment” was associated with depression, while only race-based “discrimination” was associated with life satisfaction. In contrast, Chae

et al.'s (2008) study of Asian Americans found that race-based "discrimination" was associated with smoking more strongly than race-based "unfair treatment." As such, no consensus exists among the few studies that have examined the impact of question wording on estimates of the health consequences of differential treatment. Assessing the effect of question wording is crucial to determining the extent to which these experiences contribute to the health disparities. As such, we explore the negative effects of "unfair treatment" on mental and physical health will be significantly different from those of "discrimination."

### *The Present Study*

The present study investigates whether the terms "discrimination" and "unfair treatment" yield different amounts of self-reported differential treatment and its consequences for health across race and ethnicity. We extend Barkan's (2017) study in three important ways. First, we use data from two nationally representative surveys that were collected in the same time period: the National Survey of Midlife Development in the United States Wave II (MIDUS II; Ryff et al. 2012) and the Health and Retirement Study 2006 Wave (Health and Retirement Study 2008). Second, we include more than two racial and ethnic groups: Latinx, non-Hispanic black, other non-white, and non-Hispanic white respondents. Finally, we do not rely on simple bivariate comparisons of percentages or means for self-reported differential treatment across the MIDUS and HRS surveys. Rather, we merge the two datasets and use multivariate analyses to control for other predictors of self-reported differential treatment and health to isolate the effect of question wording on the prevalence, distribution, and health correlates of such treatment.

## **Methods**

### *Data*

**MIDUS.** The first wave of the MIDUS survey (1995–1996) consisted of 3,034 adults ages 25–74 who completed the random-digit-dial telephone survey and mail-in self-administered questionnaire (SAQ) (61% response rate). In the second wave (2004–2006), a mail-in SAQ, which included questions about experiences of "discrimination," was sent to 2,267 respondents (69%); eighty-one percent (1,805 respondents) completed and returned it. For the current analyses of Wave II data, we employ multiple imputations with chained equations using 10 imputations for missing data on independent variables; this yielded in 1,794 analyzable cases. These data are weighted to account for probability of selection, non-response, and telephone non-coverage, and to adjust for differences between the MIDUS Wave II sample and the US

population on key demographic characteristics (i.e., race, gender, age, and education).

**HRS.** The first wave of the HRS survey (conducted in 1992) interviewed 12,652 adults ages 51–61 (82% response rate). Respondents and their spouses/partners (of all ages) were re-interviewed every two years. In 1998, the biannual HRS survey was expanded to include new cohorts of adults ages 50 and older, retaining over 90 percent of living respondents and introducing new respondents with each subsequent wave (Health and Retirement Study 2011). In the eighth wave of the survey (2006–2007), a random subsample of 8,568 respondents was asked to complete a Leave-Behind Questionnaire (LBQ), which included questions about their experiences of “unfair treatment,” and 7,635 (89%) completed it. For the present analyses, we utilized multiple imputations with chained equations using 10 imputations for missing data on independent variables, yielding 6,153 analyzable cases. These analyses are based on weighted data, which account for probability of household selection and non-response to the LBQ, and adjust for differences between the HRS 2006 sample and the US population on key demographic characteristics (e.g., race, gender, and age).

**Merging Data.** Every effort was made to minimize differences between the MIDUS and HRS surveys beyond the question wording. Some slight differences were inevitable, including year, sampling design, and question order. Sample weight construction was also slightly different, with HRS sample weights adjusting for those who completed the LBQ and for household clustering for respondents whose spouses/partners participated. (Supplemental analyses that do not include sample weights yield similar results to those presented.) In addition, the HRS sample is older (ages 30–104) than the MIDUS respondents (ages 30–84), reflecting the HRS’s focus on older adults. (Only 3 percent of the HRS sample is younger than 50.) However, supplemental analyses restricted to the age range on which the surveys overlap (50–84) yield similar results to those presented (available upon request). Given the imperfect comparison between these two surveys, we stress that our study is exploratory.

### **Measures**

The appendix lists the measures used to assess respondents’ experiences of differential treatment. The MIDUS and HRS surveys’ measures of differential treatment are generally similar, with the exception of the terms used (i.e., “discrimination” or “unfair treatment”). Both measures use a two-stage design, wherein respondents are asked whether they have experienced specific events of differential treatment, and then asked to attribute such experiences to a particular identity or social group membership. These measures have been adapted

from the Everyday Discrimination and Major Experiences of Discrimination Scales (Williams et al. 1997).

**Discrimination.** In MIDUS, respondents were asked to report the number of times in their lifetime they faced “discrimination.” Specifically, they were asked to report their experiences of major discrimination in seven domains: (1) education; (2) work; (3) housing; (4) policing; (5) banking; (6) medical care; and (7) service. The present analyses included only four domains (six items) that also appear in the HRS survey (i.e., fired, not hired, denied promotion, prevented from renting/buying home, denied loan, and hassled by the police). *Major discrimination* is the number of major events of discrimination respondents have experienced in their lifetime (0–6).

MIDUS respondents were also asked to report their experiences of day-to-day basis discrimination in the following scenarios: (1) treated with less courtesy than other people; (2) treated with less respect than other people; (3) receive poorer service than other people at restaurants or stores; (4) people act as if they think you are not smart; (5) people act as if they are afraid of you; (6) people act as if they think you are dishonest; (7) people act as if they think you are not as good as they are; (8) called names or insulted; and (9) threatened or harassed. The first two discrimination items were averaged ( $\alpha = .95$ ) to mirror the HRS item, “treated with less courtesy or respect.” The present analyses included the five events that are also included in the HRS (i.e., less courtesy/respect, poorer service, threatened or harassed, treated as if not smart, and treated as if threatening). *Everyday discrimination* is an additive scale ranging from 0 (“never”) to 3 (“often”), with the possible highest score of 15 ( $\alpha = .85$ ).

**Unfair Treatment.** In the HRS, respondents were asked to report whether they experienced unfair treatment in four domains: (1) work; (2) housing; (3) banking; and (4) policing. *Major unfair treatment* is the number of these events respondents have faced in their lifetime (0–6;  $\alpha = .82$ ). Respondents were also asked to report their experiences of “unfair treatment.” First, they were asked to report their day-to-day experiences of unfair treatment in the following scenarios: (1) treated with less courtesy or respect than other people; (2) received poorer service than other people at restaurants or stores; (3) people act as if they think you are not smart; (4) people act as if they are afraid of you; and, (5) threatened or harassed. Similar to MIDUS’s measure, *everyday unfair treatment* is an additive scale ranging from 0 (“never”) to 3 (“almost every day”/“at least once a week”), with the possible highest score of 15 ( $\alpha = .78$ ).

**Health.** In both surveys, *psychological distress* was assessed by asking participants to rate how often, within the past 30 days, they felt: (1) sad, (2)

nervous, (3) restless, (4) hopeless, (5) worthless, and (6) that everything was an effort. The scale ranged from 0 (“none of the time”) to 4 (“all of the time”) (MIDUS  $\alpha = .84$ ; HRS  $\alpha = .87$ ). A composite score was computed by summing responses to the aforementioned items, resulting in a possible range from 0 to 24, with higher scores indicating more psychological distress. *Physical health* was measured with a single item asking respondents to assess their current physical health by using a scale ranging from 0 (poor) to 4 (excellent).

***Sociodemographic Characteristics.*** Factors that are potentially associated with the experience of differential treatment, health, or both are included in the present analyses as control variables. *Race and ethnicity* (non-Hispanic black, Latinx, and other non-white) was dummy-coded, with non-Hispanic whites as the reference group. A dichotomous variable is used for gender (women = 1, men = 0). *Weight* is a binary measure (0 = non-obese, 1 = obese) of whether respondents are medically classified as obese (i.e., BMI > 30). *Age* is a continuous measure in years (30–104). *Education* is the amount of formal education received. MIDUS used a scale ranging from no formal schooling to PhD/equivalent degree, whereas HRS used the number of years of formal education they received. These reports were coded in the following analyses to mirror one another: 0 (less than middle/junior high school) to 7 (any graduate school). *Income* is the natural log of respondents’ household income for the past year, including wages, pension, SSI, government assistance, and any other sources of income. Finally, *marital/partner status* (single/never married and divorced/widowed/separated) is dummy-coded, with currently partnered/married as the reference group.

### ***Analysis Plan***

Upon pooling the MIDUS and HRS surveys ( $N = 7,947$ ), we first compare the samples’ sociodemographic characteristics and reports of differential treatment. Second, we use Chow tests (Chow 1960) in multivariate models to investigate the association between question wording (“discrimination” versus “unfair treatment”) and reports of differential treatment, net of sociodemographic characteristics: any differential treatment (binary logistic regression), and the frequency of everyday differential treatment and the count of major differential treatment (negative binomial logistic regression for both). Finally, we use Chow tests to estimate the effect of differential treatment on psychological distress and physical health (ordered logistic regression for both). We use negative binomial logistic regression to estimate psychological distress because preliminary analyses suggest that this measure is right-skewed, with the majority of HRS and MIDUS respondents reporting little to no distress in the past month.



Each Chow test entails two parts. First, fully interactive models are used, wherein an interaction term is included for survey (HRS = 0, MIDUS = 1) by each variable; then, we use post-estimation Wald tests to assess whether the influence of the total set of covariates is significantly different between the two surveys. A significant interaction suggests that parity does not exist between the MIDUS and HRS surveys. The fully interactive models include sociodemographic characteristics and an interaction term for each sociodemographic characteristic by survey. By accounting for the effects of sociodemographic characteristics, the remaining differences across surveys can be interpreted as, at least partially, the effect of question wording. Prior research demonstrates that Chow test can be used to estimate whether the effect of a variable on an outcome varies across groups (Long and Mustillo forthcoming; also see Rendall et al. 2013 for a review).

## Results

### *Descriptive Statistics*

Table 1 presents the descriptive statistics for all variables included in the current analyses in both MIDUS (“discrimination”) and HRS (“unfair treatment”) surveys. Both samples are majority non-Hispanic white, although the HRS sample includes significantly more non-Hispanic black and Latinx respondents (but significantly fewer respondents of other minority races/ethnicities). In both samples, women represent slightly more than half of respondents, while just under one-third of each sample is obese. The average age of the HRS sample ( $M = 65.20$ ) is significantly older than that of the MIDUS sample ( $M = 54.79$ ). Additionally, on average, HRS respondents have significantly lower levels of formal education, yet significantly higher levels of income. Finally, significantly more MIDUS respondents are single and never-married, and significantly more HRS respondents are either separated, divorced, or widowed. These differences across the HRS and MIDUS samples will be accounted for in multivariate analyses.

Table 1 also displays the reports of “discrimination” and “unfair treatment” among MIDUS and HRS respondents, respectively, including any, everyday, and major differential treatment, as well as respondents’ current health status. Overall, significantly more HRS respondents report facing any differential treatment (77%) than MIDUS respondents (69%). However, this pattern varies by type of differential treatment: HRS respondents report significantly more frequent everyday “unfair treatment” ( $M = 2.54$ ) compared to MIDUS respondents’ reports of everyday “discrimination” ( $M = 2.31$ ), while MIDUS respondents report more events of major “discrimination” ( $M = .99$ ) compared to HRS respondents’ reports of major “unfair treatment” ( $M = .49$ ).

**Table 1**  
 Sample-Specific Descriptive Statistics for Sociodemographic Characteristics,  
 Reports of Differential Treatment, and Health Status (*N* = 7,947)

	National survey of midlife development in the United States ("discrimination") ( <i>N</i> = 1,794)		Health and retirement study ("unfair treatment") ( <i>N</i> = 6,153)	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
<b>Sociodemographics</b>				
Non-Hispanic black (yes = 1)	.05	–	.07**	–
Latinx (yes = 1)	.04	–	.06***	–
Other non-white (yes = 1)	.07	–	.03***	–
Woman (yes = 1)	.56	–	.54	–
Obese (yes = 1)	.31	–	.32	–
Age, in years (30–84)	54.79	.34	65.20***	.15
Education (graduate school = 7)	4.12	.05	3.97**	.03
Household Income (logged)	10.19	.07	10.68***	.02
Single (yes = 1)	.07	–	.03***	–
Partnered/married (yes = 1)	.72	–	.70	–
Separated/divorced/ widowed (yes = 1)	.21	–	.27***	–
Differential treatment (any = 1)	.69	–	.77***	–
Everyday differential treatment (any = 1)	.60	–	.73***	–
Less respect or courtesy (0–3)	.63	.02	.85***	.01
Inferior service (0–3)	.48	.02	.56***	.01
Treated as if not smart (0–3)	.56	.02	.58	.01
Others act afraid of you (0–3)	.41	.02	.32***	.01
Threatened or harassed (0–3)	.22	.01	.24	.01
Overall frequency (0–15)	2.31	.07	2.54**	.04
Major differential treatment (any = 1)	.39	–	.30***	–

**Table 1**  
(continued)

	National survey of midlife development in the United States ("discrimination") ( <i>N</i> = 1,794)		Health and retirement study ("unfair treatment") ( <i>N</i> = 6,153)	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Unfairly fired from job (yes = 1)	.16	—	.18*	—
Not hired for job (yes = 1)	.19	—	.09***	—
Denied job promotion (yes = 1)	.23	—	.10***	—
Denied home/ apartment (yes = 1)	.09	—	.02***	—
Denied bank loan (yes = 1)	.14	—	.05***	—
Police harassment (yes = 1)	.12	—	.05***	—
Overall count (0–6)	.99	.04	.49***	.01
<b>Health status</b>				
Psychological distress (high = 24)	3.43	.11	3.77*	.06
Self-rated health (excellent = 4)	2.43	.03	2.31**	.02

*Sources:* National Survey of Midlife Development in the United States (MIDUS; "discrimination") and the Health and Retirement Study (HRS; "unfair treatment").

*Notes:* \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  compared with MIDUS respondents.

Finally, HRS respondents report significantly higher levels of psychological distress ( $M = 3.77$ ) and worse physical health ( $M = 2.31$ ) than MIDUS respondents ( $M = 3.43$  and  $M = 2.43$ , respectively). Consistent with prior research, preliminary analyses (available upon request) suggest that each type of "unfair treatment" and "discrimination" predict greater psychological distress and worse self-rated physical health in the HRS and MIDUS surveys, respectively, net of sociodemographic controls—with one exception: Major

“discrimination” is not associated with self-rated physical health among MIDUS respondents.

### *Multivariate Analyses for Differential Treatment*

In the following multivariate analyses, the HRS and MIDUS samples are pooled ( $N = 7,947$ ) to determine the effect of survey question wording on reports of differential treatment. In preliminary analyses, Chow tests are used for each outcome, first, using fully interactive multivariate models, and then, using post-estimation Wald tests to estimate whether the interaction terms are jointly significant. Joint significance was found for any differential treatment ( $F = 37.97$ ,  $p < .001$ ), everyday differential treatment ( $F = 42.43$ ,  $p < .001$ ), and major differential treatment ( $F = 75.02$ ,  $p < .001$ ) in Chow tests. Thus, parity does not exist between the MIDUS (discrimination) and HRS (unfair treatment) samples.

Table 2 presents the exponentiated coefficients for any (binary logistic regression), everyday (negative binomial regression), and major differential treatment (negative binomial regression) for the pooled sample—first including sociodemographic controls and a binary indicator for survey (HRS = 0; MIDUS = 1) and second adding controls for the interaction between survey and each sociodemographic control variable. The first set of models (Models 1) indicate whether there is a significant effect of question wording (“unfair treatment” versus “discrimination”) on respondents’ reports of differential treatment. Models 2 indicate whether the effect of question wording significantly differs across the HRS and MIDUS samples.

For any differential treatment, Model 1 suggests that MIDUS (“discrimination”) respondents are significantly less likely to report differential treatment than HRS (“unfair treatment”) respondents (odds ratios [OR]: .42; CI: .36–.49). In addition, non-Hispanic black (OR: 1.41; CI: 1.10–1.82) and other non-whites (OR: 1.65; CI: 1.20–2.28) are significantly more likely to report any differential treatment than non-Hispanic whites, and women are significantly less likely to report any differential treatment compared to men (OR: .68; CI: .60–.77). In Model 2, two interaction terms are significant: Non-Hispanic black X “Discrimination” (OR: 2.91; CI: 1.23–6.91) and woman X “Discrimination” (OR: 1.64; CI: 1.25–2.14). That is, the black-white racial difference and gender difference in reports of differential treatment are significantly larger among MIDUS respondents (“discrimination”) than HRS respondents (“unfair treatment”).

In Model 1 for everyday differential treatment, MIDUS respondents (“discrimination”) report significantly less differential treatment than HRS respondents (“unfair treatment”) (incidence risk ratios [IRR]: .71; CI: .66–.76). Non-Hispanic black (IRR: 1.12; CI: 1.03–1.23) and other non-white (IRR: 1.27; CI: 1.13–1.43) respondents report experiencing more everyday differential

**Table 2**  
Pooled Sample Exponentiated Coefficients for Differential Treatment (N = 7,947)

	Any differential treatment <sup>A</sup>		Everyday differential treatment <sup>B</sup>		Major differential treatment <sup>B</sup>	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
“Discrimination” [MIDUS]	.42*** (.36-.49)	.07*** (.02-.27)	.71*** (.66-.76)	.48* (.26-.87)	1.56*** (1.37-1.78)	.17*** (.06-.49)
Non-Hispanic black	1.41** (1.10-1.82)	1.29 (.99-1.69)	1.12*** (1.03-1.23)	1.09 (.99-1.19)	1.93*** (1.65-2.26)	1.94*** (1.63-2.30)
Latinx	.82 (.63-1.06)	.83 (.62-1.11)	.87* (.78-.98)	.85* (.75-.97)	1.01 (.80-1.28)	1.04 (.80-1.35)
Other non-white	1.65** (1.20-2.28)	1.73** (1.15-2.59)	1.27*** (1.13-1.43)	1.22** (1.07-1.40)	1.25* (1.02-1.54)	1.18 (.91-1.52)
Woman	.68*** (.60-.77)	.63*** (.55-.74)	.80*** (.76-.84)	.78*** (.74-.83)	.68*** (.61-.75)	.64*** (.57-.71)
NH black X “ Discrimination”		2.91* (1.23-6.91)		1.46** (1.11-1.92)		1.00 (.70-1.44)
Latinx X “ Discrimination”		.87 (.44-1.72)		1.33 (.96-1.85)		.88 (.56-1.40)

**Table 2**  
(continued)

	Any differential treatment <sup>A</sup>		Everyday differential treatment <sup>B</sup>		Major differential treatment <sup>B</sup>	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Other						
Non-white X “Discrimination”		.85 (.46–1.60)		1.24 (.96–1.60)		1.25 (.84–1.86)
Woman X “Discrimination”		1.64*** (1.25–2.14)		1.28*** (1.12–1.45)		1.47*** (1.19–1.82)

Sources: National Survey of Midlife Development in the United States (MIDUS; “discrimination”) and the Health and Retirement Study (HRS; “unfair treatment”).

Notes: Exponentiated coefficients, with 95% confidence intervals in parentheses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (two-tailed test). Non-Hispanic whites are the reference racial and ethnic group. All models include controls for weight, age, education, income, and marital/partner status. Models 2 include additional controls for interactions between each control and survey (e.g., woman X “discrimination” [MIDUS]).

<sup>A</sup>Binary logistic odds ratios.

<sup>B</sup>Negative binomial incidence risk ratios.

treatment than non-Hispanic white respondents, while Latinx (IRR: .87; CI: .78–.98) respondents report facing less of such treatment than non-Hispanic whites. Women report significantly less everyday differential treatment than men (IRR: .80; CI: .76–.84). In Model 2, only the race-by-survey interaction term for non-Hispanic black respondents (IRR: 1.46; CI: 1.11–1.92) and the gender-by-survey interaction term (IRR: 1.28; CI: 1.12–1.45) are statistically significant. The black–white racial gap and gender gap in reports of differential treatment are larger in the MIDUS respondents (“discrimination”) compared to the HRS (“unfair treatment”).

The effect of question wording for major differential treatment is also significant (IRR: 1.56; CI: 1.37–1.78). However, unlike the previous two outcomes, MIDUS respondents report significantly *more* events of major differential treatment than HRS respondents. Non-Hispanic black (IRR: 1.93; CI: 1.65–2.26) and other non-whites (IRR: 1.25; CI: 1.02–1.54) report significantly more major differential treatment than non-Hispanic whites, while women report significantly fewer of these experiences than do men (IRR: .68; CI: .61–.75). In Model 2, there are no significant race-by-survey interaction effects, while the gender gap in major differential treatment is significantly larger among MIDUS respondents (“discrimination”) than among HRS respondents (“unfair treatment”) (IRR: 1.47; CI: 1.19–1.82).

Taken together, these results suggest a significant effect of question wording on the prevalence and distribution of differential treatment. Supplemental analyses (available upon request) suggest that parity exists between the MIDUS and HRS surveys on other stressful and unfair experiences: being given tasks that no one else wants at work; being watched more closely at work than anyone else; being ignored or not taken seriously by one’s supervisor; having experienced the death of a child; and ever being physically attacked. These supplemental analyses suggest that the aforementioned findings about differential treatment largely reflect the impact of question wording and less so other differences between the MIDUS and HRS surveys.

### ***Race-Specific Multivariate Analyses for Differential Treatment***

Next, we assess racial differences in the effects of question wording on reports of differential treatment, particularly black–white differences in reports of any and everyday differential treatment. The following processes may be at play: (1) relatively higher reports of “discrimination” among black MIDUS respondents; (2) relatively lower reports of “unfair treatment” among black HRS respondents; (3) relatively higher reports of “unfair treatment” among white HRS respondents; and/or (4) relatively lower reports of “discrimination” among white MIDUS respondents. The following race-specific analyses will tease these processes apart.

We first turn to the effect of question wording on non-Hispanic white respondents' reports of differential treatment. In preliminary analyses, Chow tests for each type of differential treatment yield joint significance for any differential treatment ( $F = 54.83$ ,  $p < .001$ ), everyday differential treatment ( $F = 71.83$ ,  $p < .001$ ), and major differential treatment ( $F = 74.60$ ,  $p < .001$ ). Parity does not exist between white MIDUS and HRS respondents. Table 3 presents the exponentiated coefficients for any (binary logistic regression), everyday (negative binomial regression), and major differential treatment (negative binomial regression) for the pooled sample of white respondents ( $N = 6,461$ ). Across each of the three types of differential treatment, the effect of survey is statistically significant. Compared to white HRS respondents ("unfair treatment"), white MIDUS respondents ("discrimination") are significantly less likely to report any differential treatment (OR: .41; CI: .35–.49), report significantly fewer experiences of everyday differential treatment (IRR: .66; CI: .61–.72), yet report significantly more major differential treatment (IRR: 1.49; CI: 1.28–1.73). These results mirror the aforementioned patterns among respondents of all races and ethnicities.

We also reran Chow tests for any, everyday, and differential treatment for non-Hispanic black ( $N = 690$ ), Latinx ( $N = 449$ ), and other non-white ( $N = 330$ ) respondents in preliminary analyses. Among black respondents, there was only one outcome for which parity did not exist between surveys: any differential treatment ( $F = 221.84$ ,  $p < .001$ ). However, supplemental analyses (available upon request)—binary logistic regression modeling for any differential treatment—suggest that question wording does not significantly affect black respondents' reports of differential treatment. Chow tests suggest parity exists among Latinx MIDUS and HRS respondents; thus, there is no statistical evidence that question wording affects their self-reports of differential treatment. Finally, Chow tests indicate that joint significance exists for only one outcome among other non-white respondents: major differential treatment ( $F = 14.63$ ,  $p < .05$ ). Supplemental analyses suggest other non-white MIDUS ("discrimination") respondents report significantly more major differential treatment than other non-white HRS respondents ("unfair treatment") (IRR: .71; CI: .22–1.19; analyses available upon request). These results mirror those for the entire pooled sample as well as those exclusively among non-Hispanic whites.

Taken together, these findings suggest that the effect of question wording on reports of differential treatment largely reflects non-Hispanic white HRS respondents' relatively *higher* reports of any and everyday "unfair treatment" and relatively *fewer* events of major "unfair treatment." Supplemental survey-specific analyses further suggest the black–white differences in reports of any and everyday (but not major) differential treatment are substantially more



**Table 3**  
Pooled Sample Exponentiated Coefficients for Differential Treatment among  
Non-Hispanic whites ( $N = 6,461$ )

	Any differential treatment <sup>A</sup>	Everyday differential treatment <sup>B</sup>	Major differential treatment <sup>B</sup>
“Discrimination” [MIDUS]	.41*** (.35–.49)	.66*** (.61–.72)	1.49*** (1.28–1.73)
Woman	.67*** (.58–.77)	.82*** (.77–.86)	.71*** (.63–.79)
Obese	1.20* (1.02–1.40)	1.15*** (1.08–1.22)	1.17** (1.04–1.32)
Age	.96*** (.95–.97)	.98*** (.97–.98)	.97*** (.96–.97)
Education	1.10*** (1.05–1.14)	.99 (.97–1.01)	1.10*** (1.06–1.13)
Income	.97 (.92–1.02)	.99 (.97–1.02)	.91*** (.87–.95)
Single, never married	.70 (.46–1.08)	1.02 (.87–1.19)	1.11 (.82–1.52)
Separated, divorced, or widowed	1.16 (.98–1.37)	1.12** (1.04–1.20)	1.24** (1.09–1.42)

*Sources:* National Survey of Midlife Development in the United States (MIDUS; “discrimination”) and the Health and Retirement Study (HRS; “unfair treatment”).

*Notes:* Exponentiated coefficients, with 95% confidence intervals in parentheses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (two-tailed test). Analyses are restricted to non-Hispanic white respondents.

<sup>A</sup>Binary logistic odds ratios.

<sup>B</sup>Negative binomial incidence risk ratios.

pronounced among MIDUS (“discrimination”) respondents than HRS (“unfair treatment”) respondents (available upon request). Interestingly, these patterns are not reflected among Latinx and other non-white respondents relative to non-Hispanic white respondents.<sup>1,2</sup>

*Multivariate Analyses for Differential Treatment on Health*

The next set of analyses investigates whether question wording differentially predicts mental and physical health. Chow tests were used in preliminary analyses for any, everyday, and major differential treatment on psychological distress and physical health.

**Mental Health.** Wald tests revealed joint significance for each of the three types of differential treatment in fully interactive models: any ( $F = 60.82$ ,  $p < .001$ ), everyday ( $F = 76.30$ ,  $p < .001$ ), and major differential treatment ( $F = 77.34$ ,  $p < .001$ ), suggesting that parity does not exist between MIDUS and HRS surveys. Table 4 displays the negative binomial incidence risk ratios for psychological distress on each differential treatment variable, controlling for sociodemographic characteristics. In Models 1, the separate effects of any (IRR = 1.68; CI: 1.55–1.82), everyday (IRR = 1.14; CI: 1.12–1.15), and major (IRR = 1.12; CI: 1.09–1.15) differential treatment are significant in the pooled sample. Consistent with prior research, each type of differential treatment predicts greater psychological distress. However, in Models 2, the interaction terms for survey-by-differential treatment are statistically significant for everyday (IRR = .96; CI: .93–.98) and major differential treatment (IRR = .91; CI: .87–.95). These patterns suggest that the effects of “discrimination” (MIDUS) and “unfair treatment” (HRS) on psychological distress are not equivalent. Specifically, reports of everyday and major “unfair treatment” are associated with greater distress than reports of “discrimination.”

In order to further explore whether these differential effects of “discrimination” vs. “unfair treatment” on psychological distress would be moderated by respondent race and ethnicity, we conducted supplemental analyses for each racial and ethnic group separately (available upon request). The results suggest that the observed differences are generally limited to non-Hispanic whites; that is, the less severe consequence of “unfair treatment” on one’s mental health compared to that of “discrimination” largely reflects the experiences of whites.<sup>3</sup>

**Physical Health.** Wald tests revealed joint significance for each of the three types of differential treatment in fully interactive models. The interaction terms were jointly significant for any ( $F = 49.27$ ,  $p < .001$ ), everyday ( $F = 49.21$ ,  $p < .001$ ), and major differential treatment ( $F = 58.38$ ,  $p < .001$ ), suggesting parity does not exist between the MIDUS and HRS surveys. Table 5 displays the ordered logistic odds ratios for self-rated physical health on any, everyday, and major differential treatment, net of sociodemographic characteristics. Similar to psychological distress, each type of differential treatment is significantly associated with physical health; greater reports of

**Table 4**  
 Pooled Sample Negative Binomial Incidence Risk Ratios for Psychological Distress on Differential Treatment  
 (N = 7,947)

	Any differential treatment		Everyday differential treatment		Major differential treatment	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
“Discrimination” [MIDUS]	.88** (.82-.95)	.46* (.23-.94)	.92* (.86-1.00)	.56 (.28-1.12)	.79*** (.73-.85)	.42* (.21-.85)
Non-Hispanic black	.98 (.88-1.08)	.98 (.88-1.09)	.98 (.88-1.09)	.99 (.88-1.11)	.94 (.85-1.03)	.93 (.83-1.03)
Latinx	1.25*** (1.12-1.39)	1.23*** (1.09-1.38)	1.30*** (1.17-1.45)	1.30*** (1.15-1.46)	1.20** (1.07-1.33)	1.18** (1.05-1.33)
Other non-white	1.05 (.93-1.20)	1.06 (.90-1.23)	1.02 (.89-1.16)	1.03 (.88-1.21)	1.07 (.94-1.23)	1.08 (.92-1.27)
Woman	.99 (.94-1.05)	.97 (.91-1.03)	1.04 (.98-1.10)	1.02 (.96-1.09)	.98 (.93-1.04)	.97 (.91-1.03)
Any Diff. Treatment	1.68*** (1.55-1.82)	1.71*** (1.56-1.87)				
Any Diff. X “ Discrimination”		.90 (.77-1.04)				
Everyday Diff. Treatment			1.14*** (1.12-1.15)	1.14*** (1.13-1.16)		

**Table 4**  
(continued)

	Any differential treatment		Everyday differential treatment		Major differential treatment	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Everyday Diff. X “Discrimination”				.96*** (.93–.98)		
Major differential treatment					1.12*** (1.09–1.15)	1.16*** (1.12–1.19)
Major Diff. X “Discrimination”						.91*** (.87–.95)

*Sources:* National Survey of Midlife Development in the United States (MIDUS; “discrimination”) and the Health and Retirement Study (HRS; “unfair treatment”).

*Notes:* Incidence risk ratios, with 95% confidence intervals in parentheses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (two-tailed test). Non-Hispanic whites are the reference racial/ethnic group. All models include controls for weight, age, education, income, and marital/partner status. Models 2 also control for interactions between each control and survey (e.g., woman X “discrimination” [MIDUS]).

**Table 5**  
 Pooled Sample Ordered Logistic Odds Ratios for Self-rated Physical Health on Differential Treatment (*N* = 7,947)

	Any differential treatment		Everyday differential treatment		Major differential treatment	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
“Discrimination” [MIDUS]	.92 (.81–1.05)	15.95*** (3.54–71.85)	.90 (.79–1.03)	13.74*** (3.10–6.98)	1.00 (.88–1.15)	12.57*** (2.85–55.44)
Non-Hispanic black	.59*** (.49–.72)	.61*** (.49–.75)	.60*** (.50–.73)	.61*** (.50–.76)	.61*** (.51–.74)	.64*** (.52–.79)
Latinx	.54*** (.42–.69)	.58*** (.45–.76)	.53*** (.41–.67)	.56*** (.43–.73)	.55*** (.43–.70)	.59*** (.45–.77)
Other non-white	.76* (.59–.99)	.80 (.58–1.10)	.79 (.61–1.02)	.81 (.59–1.12)	.76* (.59–.99)	.79 (.58–1.09)
Woman	1.14* (1.03–1.27)	1.16** (1.04–1.31)	1.11* (1.00–1.23)	1.13* (1.01–1.27)	1.14* (1.02–1.26)	1.15* (1.02–1.29)
Any Diff. Treatment	.76*** (.68–.85)	.78*** (.68–.88)				
Any Diff. X “ Discrimination”	.88 (.70–1.11)					
Everyday diff. treatment			.92*** (.90–.94)	.92*** (.89–.94)		
Everyday Diff. X “Discrimination”			1.00 (.95–1.04)	1.00 (.95–1.04)		

**Table 5**  
(continued)

	Any differential treatment		Everyday differential treatment		Major differential treatment	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Major differential treatment					.89*** (.85-.94)	.86*** (.80-.92)
Major Diff. X “Discrimination”						1.12* (1.02-1.23)

Sources: National Survey of Midlife Development in the United States (MIDUS; “discrimination”) and the Health and Retirement Study (HRS; “unfair treatment”).

Notes: Odds ratios, with 95% confidence intervals in parentheses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (two-tailed test). Non-Hispanic whites are the reference racial and ethnic group. All models include controls for weight, age, education, income, and marital/partner status. Models 2 include additional controls for interactions between each control and survey (e.g., woman X “discrimination” [MIDUS]).

differential treatment are significantly associated with worse physical health. In Models 2, only the survey-by-differential treatment interaction term for major differential treatment is significant (OR: 1.12; CI: 1.02–1.23); the effect of major “discrimination” (MIDUS respondents) is *stronger* than that of major “unfair treatment” (HRS respondents) on physical health.

Again, we further explored whether this differential effect of “discrimination” vs. “unfair treatment” on physical health would be moderated by respondent race and ethnicity. Chow tests suggest that parity does not exist between the MIDUS and HRS surveys among non-Hispanic whites for all three types of differential treatment; however, parity does exist between the surveys for non-Hispanic black, Latinx, and other non-white respondents (available upon request). Further analyses reveal that the differential effect of question wording on physical health is limited to non-Hispanic whites, wherein the negative effect of major “discrimination” (MIDUS) on physical health is stronger than that of major “unfair treatment” (HRS).

### Discussion

Given the exploratory nature of the present study, there are several limitations that must be noted. One major limitation is that our assessment of dissimilarities between the MIDUS and HRS is not exhaustive. While the multivariate analyses narrowed many systematic differences other than question wording, the results cannot be interpreted as *solely* the effect of question wording. For example, we could not account for the placement of questions about differential treatment within each survey. Additionally, the variables used in the analyses were not identical across the surveys, contributing to another limitation: Our measures were not extensive. For instance, the MIDUS assessments of *how many times* each major event occurred were excluded to parallel the HRS measure. A final limitation is that we were unable to contrast each respondent’s reports of “discrimination” vs. “unfair treatment,” which would have allowed us to determine their independent effects on health. Future research should employ a split-ballot design within the same sample (e.g., Shariff-Marco et al. 2011) to directly compare discrimination with unfair treatment, and how these experiences affect health. Additional qualitative studies, such as interviews conducted by Williams et al. (2012), are crucial to examine Americans’ interpretations of the terms “discrimination” and “unfair treatment” and whether such interpretations vary across race and ethnicity.

While noting the aforementioned limitations, the current findings are instructive for understanding the potential impact of question wording in estimates of the prevalence, distribution, and mental and physical health consequences of differential treatment. Specifically, we found that MIDUS respondents (“discrimination”) were significantly less likely than HRS

respondents (“unfair treatment”) to report differential treatment, and when they do, they reported less frequent exposure to *everyday* instances of such treatment. These findings are consistent with an argument that use of more neutral question wording is associated with a greater proportion of respondents who report unfair treatment (Williams and Mohammed 2009; Williams and Neighbors 2001)—the opposite of our prediction in Hypothesis 1 (also see Gomez and Trierweiler 2001). However, MIDUS respondents reported significantly more events of *major* differential treatment in one’s lifetime, which mirrors Brown’s (2001) findings with a sample of black Americans.

Our second hypothesis was that non-Hispanic white respondents would report significantly more “unfair treatment” than “discrimination,” but question wording would not significantly affect self-reported differential treatment among non-Hispanic black, Latinx, and other non-whites. Consistent with this hypothesis, we found that the effects of question wording on reports of differential treatment were largely driven by whites’ reports. For everyday discrimination, we found that the language of “discrimination” may depress whites’—but does not affect racial and ethnic minorities’—reports of differential treatment relative to the language of “unfair treatment” (also see Barkan 2017). Further, when we analyzed the MIDUS and HRS surveys separately, the black–white differences in reports of any and everyday “discrimination” (MIDUS) were generally larger than those in reports of “unfair treatment” (HRS). These patterns suggest that using the term “unfair treatment” leads scholars to *underestimate* racial differences in everyday forms of differential treatment (also see Krieger 2014). These findings provide preliminary evidence that people perceive discrimination and unfair treatment as distinct sets of experiences. Again, echoing Krieger (2014), “random acts of unfair treatment do not constitute discrimination” (p. 69). Both experiences may leave victims’ perceiving unfairness (Williams et al. 2012), but interpersonal discrimination is an individual-level manifestation of systemic oppression.

Interestingly, we also found that non-Hispanic whites (but not people of color) reported *more* major events of differential treatment when asked about “discrimination” (MIDUS) than when asked about “unfair treatment” (HRS). It is difficult to explain such findings without knowing definitively whether “unfair treatment” depresses non-Hispanic whites’ reports of major differential treatment, or that “discrimination” inflates estimates of these experiences. One possibility is that major events of differential treatment (e.g., in hiring and promotion) conjure up whites’ beliefs that Affirmative Action and other policies to redress racial inequality constitute a form of “reverse racism” (Bobo and Suh 2000; Camara and Orbe 2011; Coleman, Darity, and Sharpe 2008; Pincus 2003; Wakefield and Uggen 2004). Future work is needed to further explore



how individuals from different racial and ethnic groups understand what constitutes “discrimination” and “unfair treatment.”

Finally, the present study examined the extent to which differential treatment contributes to the racial and ethnic disparities in health. Consistent with prior research on discrimination and health (Pascoe and Richman 2009), both “discrimination” and “unfair treatment” were significantly associated with more psychological distress and worse physical health. However, reports of everyday and major “unfair treatment” in the HRS predicted substantially *higher* psychological distress than reports of “discrimination” in MIDUS. These findings are consistent with prior social psychological research showing that attributing the experience of negative events to external factors, such as discrimination, can protect individuals’ self-esteem by discounting one’s culpability in producing the negative events (Crocker and Major 1989; Major, Quinton, and Schmader 2003). However, our findings also suggest that reports of major “discrimination” in the MIDUS predicted worse physical health than did reports of major “unfair treatment” in the HRS. In addition, supplemental analyses further indicated that these differential effects of question wording on psychological well-being and physical health were generally limited to non-Hispanic whites. Again, these findings highlight the importance of future work on how different racial and ethnic groups construe “discrimination” vs. “unfair treatment.”

One important implication of the current findings is that use of generic measures does not necessarily effectively minimize the “emotionally charged” (Williams and Mohammed 2009, p.31) nature of explicit references to discrimination. Rather, the effects of question wording on prevalence and health consequences of differential treatment were overwhelmingly limited to non-Hispanic whites. Consequently, this terminology may mask the disproportionate amount of discrimination faced by racial and ethnic minorities, which, in turn, hampers scholars’ ability to document the extent to which discrimination contributes persistent racial and ethnic disparities in health (Krieger 2014). Thus, as suggested by several scholars previously (Brown 2008; Krieger 2012, 2014), use of more neutral term to capture individuals’ experience of differential treatment may be less useful for research on the racial and ethnic health disparities. If discrimination scholars’ use of such neutral terminology continues to increase, we predict that it will become more difficult to draw conclusions from the body of work on discrimination and health disparities. We argue that scholars should continue to critically and empirically assess what experiences are reflected in commonly used measures of differential treatment and how they impact individuals’ health and well-being. In doing so, the recent suggestion to shift away from use of the term “discrimination” and to use of more neutral term “unfair treatment” (Grollman and Hagiwara 2017) should be re-examined empirically. Doing so is

essential for more adequately documenting the extent to which discrimination contributes to racial and ethnic disparities in health and well-being.

#### ENDNOTES

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<sup>1</sup>In supplemental analyses, we examined the effect of question wording on respondents' self-reported attribution for the social identity or personal characteristic upon which their experiences of differential treatment are based (available upon request). These analyses suggest that MIDUS respondents are significantly less likely to attribute the differential treatment they face to their personal appearance compared to HRS respondents. Similarly, MIDUS respondents are less likely than HRS respondents to volunteer other reasons for differential treatment besides those offered in the surveys (see Appendix).

<sup>2</sup>Supplemental analyses suggest that parity exists between the HRS and MIDUS surveys for women respondents on any and major differential treatment (available upon request); however, it does not for men, among whom MIDUS respondents are less likely to report "discrimination" and report facing less everyday "discrimination." In sample-specific analyses, men are more likely to report any and more everyday and major "unfair treatment" than women in the HRS sample, while there are no significant gender differences in reports of "discrimination" in the MIDUS sample. The language of "unfair treatment" may exaggerate gender differences in self-reported differential treatment.

<sup>3</sup>Supplemental analyses suggest that parity does not exist between the HRS and MIDUS surveys among other non-whites and non-Hispanic whites for psychological distress on each type of differential treatment (available upon request). The effects of everyday and major "discrimination" on psychological distress are significantly weaker than those of everyday and major "unfair treatment" among non-Hispanic whites. In addition, the effect of major "discrimination" on distress is significantly weaker than that of "unfair treatment" among other non-whites.

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**Appendix**  
**Sample-Specific Differential Treatment Measures**

Measure	National Survey of Mid-life Development in the United States (MIDUS) Wave II	Health and Retirement Study (HRS) 2006 Wave
Major Differential Treatment	<p>In each of the following, indicate how many times in your life you have been <u>discriminated</u> against because of race, ethnicity, gender, age, religion, physical appearance, sexual orientation or other characteristics? (If the experience happened to you, but for some reason other than discrimination, enter "0.")</p> <ul style="list-style-type: none"> <li>a) You were fired.</li> <li>b) You were not hired for a job.</li> <li>c) You were not given a job promotion.</li> <li>d) You were prevented from renting or buying a home in the neighborhood you wanted.</li> <li>e) You were denied a bank loan.</li> <li>f) You were hassled by the police.</li> </ul>	<p>For each of the following events, please indicate whether the event occurred AT ANY POINT IN YOUR LIFE. If the event did happen, please indicate the year in which it happened most recently. (Mark [X] one box for each line. If "Yes," indicate which year.)</p> <ul style="list-style-type: none"> <li>a) At any time in your life, have you ever been unfairly dismissed from a job?</li> <li>b) For unfair reasons, have you ever not been hired for a job?</li> <li>c) Have you ever been unfairly denied a promotion?</li> <li>d) Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment?</li> <li>e) Have you ever been unfairly denied a bank loan?</li> <li>f) Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police?</li> </ul>

**Appendix**  
(continued)

Measure	National Survey of Mid-life Development in the United States (MIDUS) Wave II	Health and Retirement Study (HRS) 2006 Wave
Everyday Differential Treatment	<p>How often on a day-to-day basis do you experience each of the following types of <u>discrimination</u>?</p> <p>a) You are treated with less courtesy than other people/You are treated with less respect than other people.<sup>A</sup></p> <p>b) You receive poorer service than other people at restaurants or stores.</p> <p>c) People act as if they think you are not smart.</p> <p>d) People act as if they are afraid of you.</p> <p>e) You are threatened or harassed.</p>	<p>In your day-to-day life how often have any of the following things happened to you? (Mark [X] one box for each line.)</p> <p>a) You are treated with less courtesy or respect than other people.</p> <p>b) You receive poorer service than other people at restaurants or stores.</p> <p>c) People act as if they think you are not smart.</p> <p>d) People act as if they are afraid of you.</p> <p>e) You are threatened or harassed.</p>

**Appendix**  
(continued)

Measure	National Survey of Mid-life Development in the United States (MIDUS) Wave II	Health and Retirement Study (HRS) 2006 Wave
Attribution to Form(s)	<p>What was the main reason for the discrimination you experienced? (If more than one main reason, check all that apply.)</p> <p>Age; Gender; Race; Ethnicity or Nationality; Religion<sup>B</sup>; Height or Weight; Some other aspect of your appearance; Physical disability; Sexual orientation; Some other reason for discrimination (specify).</p>	<p>If any of the above happened to you, what do you think were the reasons why these experiences happened to you? (Mark [X] all that apply.)</p> <p>Ancestry or national origin; Gender; Race; Age; Weight; Physical Disability; Other aspect of your physical appearance; Sexual orientation; Other (specify).</p>

<sup>A</sup>These two MIDUS everyday discrimination items were combined to mirror the HRS unfair treatment item that asks about “less courtesy or respect.”

<sup>B</sup>Attributions to religion are included in other reasons for discrimination in the MIDUS because religion is not included as a provided reason in the HRS survey.