



Published in final edited form as:

Ethn Health. 2012 ; 17(0): 111–133. doi:10.1080/13557858.2012.654770.

Perceived Discrimination and Psychological Well-Being in the U.S. and South Africa

David R. Williams¹, Rahwa Haile², Selina A. Mohammed³, Allen Herman⁴, Dan J. Stein⁵, John Sonnega⁶, and James S. Jackson²

¹Department of Society, Human Development and Health, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115. Phone: 617-432-6807; Fax: 617-432-3755; dwilliam@hsph.harvard.edu

²University of Michigan, Ann Arbor

³School of Nursing, University of Washington, Bothell

⁴National School of Public Health, Medical University of South Africa, Republic of South Africa

⁵University of Cape Town, Cape Town, Republic of South Africa

⁶University of Michigan, Ann Arbor

Abstract

This study uses two national probability samples of adults, the National Survey of American Life (NSAL) and the South African Stress and Health Study (SASH) to systematically assess how the levels of perceived racial and non-racial discrimination and their effects on self-esteem and mastery in the U.S. compares to those in South Africa. Levels of perceived racial discrimination are higher in the U.S. than South Africa. In the U.S. both African Americans and Caribbean blacks have comparable or higher levels of self-esteem and mastery than whites. In contrast, South African Whites have higher levels of both self-esteem and mastery than blacks, Coloureds and Indians. Perceived discrimination, especially chronic everyday discrimination, is inversely related to self-esteem and mastery in both societies. In South Africa, stress and socioeconomic status (SES) but not discrimination are important determinants of racial differences in self-esteem and mastery. Our main findings indicate that in two racialized societies, perceived discrimination acts independent of demographic factors, other stressors, social desirability, racial identity and SES to negatively affect psychological functioning.

Goffman (1963) indicates that the “undesired differentness” of a stigmatized category such as race can lead others to both turn away from and actively discriminate against the stigmatized. Thus, discrimination is an important component of stigma (Link & Phelan, 2001), and where social inequalities exist, it is a key feature of intergroup relationships and serves to reinforce the symbolic boundaries that separate social groups from one other (Jackman, 1994). Discrimination based on race has received extensive research attention. Given the history of slavery and segregation based on law and custom, research has documented that racial discrimination has negatively affected a broad range of social outcomes for African Americans and other groups in the U.S. (Smelser, Wilson & Mitchell, 2001). South Africa also has a historical legacy of deeply entrenched discrimination (James & Lever, 2000). There is growing scientific interest in examining the extent to which perceptions of racial/ethnic discrimination are a type of stressful life experience that can adversely affect health (Clark, Anderson, Clark, & Williams, 1999). However, inadequate attention has been given to identifying the underlying psychological mechanisms by which discrimination can affect health.

Discrimination and Health

Equity theory has long noted that unfair treatment can lead to negative emotional reactions and psychosomatic symptoms (Adams, 1965). Research also suggests that both the psychological and physiological correlates and consequences of discrimination are similar to those of other psychosocial stressors (Dion, 2001; Clark et al., 1999). Several laboratory studies have assessed the physiological and affective reactions of African Americans to mental imagery and videotaped vignettes of discriminatory behavior. They have found that such exposure to racist provocation leads to increased cardiovascular and psychological reactivity (Harrell, Hall, & Taliaferro, 2003). Other laboratory studies suggest that the induction of stress and the consequent adverse impact on psychological well-being evident for African Americans exists for multiple other populations (Dion, 2001).

Recent reviews have identified over 135 studies that had examined the association between racial/ethnic discrimination and health (Krieger, 1999; Paradies, 2006; Williams, Neighbors, & Jackson, 2003). The majority of these studies found a positive association between discrimination and indicators of morbidity. Self-report measures of physical and mental health are the most commonly studied health outcomes (Paradies, 2006), but some recent studies have also examined a broader range of outcomes including subclinical cardiovascular disease (Troxel, Matthews, Bromberger, Sutton-Tyrrell, 2003; Lewis, Everson-Rose, Powell, Matthews, Brown, Karavolos, et al., 2006). Instructively, some studies have found that perceived discrimination accounts for some of the black-white differences in self-reported physical health (Williams, Yu, Jackson, & Anderson, 1997; Ren, Amick, & Williams, 1999) and birth outcomes (Mustillo, Krieger, Gunderson, Sidney, McCreath, & Kief, 2004).

Unresolved Questions

Nevertheless, the study of perceived discrimination and health is at an early stage. One important limitation of the current body of research on discrimination and health is inadequate attention to the mechanisms and processes by which negative health effects are produced. In particular, although mental health status is the most studied health outcome in discrimination research, the psychological mechanisms by which these effects occur are not well understood. Prior theory and research suggests that experiences of discrimination should adversely affect both self-esteem and mastery. Self-esteem refers to an individual's feelings of self-evaluation or positive self-regard while mastery describes the sense that individuals have control over their social and physical environment. These psychological resources can affect an individual's capacity to cope and respond to stressful experiences by affecting the appraisal of stress and enhancing adaptive capacities (Cohen, Kessler, & Gordon, 1995). Goffman (1963) indicates that because social rejection is at the core of the experience of stigmatization, feelings of shame, self-hate and self-derogation are often present. Repeated negative experiences can intensify these feelings. Accordingly, experiences of discrimination can reduce self-esteem, because stigmatized groups are presumed to internalize at least some of these negative feelings (Crocker & Major, 1989). The rejection embodied in experiences of discrimination can also lead to reductions in perceptions of control over the environment (Branscombe, Schmitt, & Harvey, 1999). Thus, one important pathway by which discrimination can adversely affect health is by undermining an individual's beliefs about self and the environment that are reflected in feelings of self-esteem and perceptions of mastery.

Our understanding of the conditions under which discrimination is more or less likely to be psychologically damaging is also limited. First, it is unclear whether there is a dose-response relationship between discrimination and health. Some studies have found non-linear patterns

in the association between discrimination and hypertension (Krieger, 1999). Second, our knowledge is limited regarding the extent to which discrimination affects health independent of other measures of stress. Some evidence suggests that adjustment for other stressors reduces the association between discrimination and health to non-significance (Taylor & Turner, 2002), while other research suggests that discrimination affects health independent of other stressors (Williams et al., 1997). Third, other psychological factors can affect both the perceptions of discrimination and the likelihood of reporting them. Accordingly, adjusting reports of discrimination for indicators of group identity and social desirability can provide a more conservative estimate of its potential impact. Fourth, we do not know the extent to which social and psychological resources such as socioeconomic status (SES) and racial identification can buffer the negative effects of perceived discrimination on psychological functioning. Prior research suggests that the salience of group identity can protect stigmatized groups from the negative effects of prejudice and discrimination (Crocker & Major, 1989; Williams, Spencer, & Jackson, 1999). Similarly, most models of the stress process recognize that resources such as SES can reduce the adverse effects of stress on health.

We also know little about the differential distribution of perceptions of inequities or about the relative effects of biases based on race versus those attributed to other reasons. Some evidence suggests that the generic perception of unfair treatment, irrespective of race or ethnicity, is adversely related to chronic health problems (Williams et al., 1999) and mental health status (Kessler, Mickelson, and Williams, 1999), but another study found that black women who attributed chronic discrimination to race demonstrated greater blood pressure reactivity than those who attributed them to other social status categories (Guyll, Matthews, & Bronberger, 2001).

Our understanding of the extent to which cross-national and ethnic contexts can affect both the levels of racial bias and its consequences for psychological functioning is limited. Most early studies of perceived discrimination and health were U.S.-based and focused on African Americans. However, subsequent research indicates that perceived discrimination adversely affects the health of Latinos, Asian Americans, American Indians, and whites (Williams et al., 2003). Recent research also indicates that perceived discrimination is adversely related to health for multiple ethnic groups in Canada, the Netherlands, Finland, Ireland, England and Wales (Williams et al., 2003), and New Zealand (Harris, Tobias, Jeffreys, Waldegrave, Karlsen, & Nazroo, 2006).

An in-depth cross-national analysis of the association between perceived discrimination and psychological well-being in South Africa and the U.S. could be instructive. Both countries share a history of legally enforced white supremacy and endogamy, and racial inequality that endured into the 20th Century. Today, however, both are multiracial industrialized democracies with constitutions that have repudiated the institutional racial discrimination of the past but with the striking persistence of racial residential segregation and racial differences in SES and health status (James & Lever, 2000; Smelser et al., 2001). At the same time, there are also striking differences between the two societies. U.S. blacks have had a much longer period of freedom from legally enforced segregation than their South African counterparts. In addition, in contrast to African Americans being a numerical minority in U.S. society, South African blacks are 76% of the population but suffer more marked social and economic deprivation (James & Lever, 2000). It is not clear whether racial differences in self-esteem and mastery will be similar across both societies or whether perceived bias will be similarly related to these psychological resources. For example, although U.S. blacks have equivalent or higher levels of self-esteem than whites (Porter & Washington, 1979), whites have higher levels of self-esteem than other minority groups in the U.S. including Hispanics, Asians, and American Indians (Twenge & Crocker, 2002).

Prior research on discrimination has also given inadequate attention to whether the levels and consequences of exposure to discrimination are similar for multiple stigmatized groups in a given society. For example, although there are commonalities to the black experience in the U.S., there is also ethnic variation *within* the black population. Blacks from the Caribbean constitute the largest sub-group of black immigrants (Williams et al., 1994). One U.S. study with a small sample of persons of Caribbean ancestry found that these immigrants reported higher levels of stress, including racial discrimination than native-born blacks (Williams, 2000). During the Apartheid era in South Africa, Coloureds (persons of mixed racial descent) and Indians, along with blacks experienced systematic discrimination compared to whites. Analyses that consider how both the types and levels of discrimination and their associations with self-esteem and mastery vary across racial and ethnic groups within the non-white population in two national contexts can enhance our understanding of these phenomena.

This paper uses national data from the U.S. and South Africa to identify the levels and characteristics of discrimination that affect psychological functioning and elucidate how perceptions of bias combine with other risk factors to affect the self-esteem and mastery of blacks and whites in the U.S. and multiple racial groups in South Africa. Our research questions are:

1. To what extent is national context related to the prevalence of perceived racial and non-racial discrimination, as well as the association between discrimination and self-esteem and mastery?
2. What contribution, if any, do perceptions of discrimination make in explaining racial differences in self-esteem and mastery?
3. How do perceptions of acute and chronic discrimination relate to self-esteem and mastery? This will include examination of: a) how the relationship between perceived discrimination and psychological well-being vary depending on the attributed reason (race/ethnicity versus other reasons) and the frequency of exposure over the lifetime; b) how the association between perceived discrimination and mastery and self-esteem is affected by psychological factors such as social desirability and racial identity; and, c) to what extent the association between perceived discrimination and psychological status is independent of traditional stressors and SES?
4. Do resources such as racial identity and SES buffer the negative effects of perceived discrimination on self-esteem and mastery?

METHODS

Samples

The data come from the National Survey of American Life (NSAL) and the South African Stress and Health Study (SASH). The NSAL was a national household probability sample of 3570 African Americans, 1621 blacks of Caribbean descent and 891 non-Hispanic whites, aged 18 and over (Jackson et al., 2004). African Americans are persons who self-identified as black but did not identify ancestral ties to the Caribbean. Caribbean blacks self-identified as black and indicated that they were of West Indian or Caribbean descent, from a Caribbean area country, or had parents or grandparents who were born in a Caribbean area country. The Caribbean black sample was selected from residential areas that were sampled to reflect the distribution of the African American population and from additional metropolitan areas where blacks of Caribbean descent were more than 10% of the population. The non-Hispanic white sample was a stratified, disproportionate sample of non-Hispanic white adults residing in households located in the census tracts and blocks that have 10% or

greater African American population. Interviews were conducted face-to-face, in English, using a computer-assisted personal interview that lasted an average of two hours and twenty minutes. Data were collected between February 2001 and June 2003. The overall response rate was 72% for whites, 71% for African Americans, and 78% for Caribbean blacks.

The SASH study was a national probability sample of 4,351 adult South Africans living in both households and hostel quarters (Williams et al., 2004). Hostel quarters were included to maximize coverage of young working age males. The sample was selected using a three-stage clustered area probability sample design. The first stage involved the selection of stratified primary sample areas based on the 2001 South African Census Enumeration Areas (EAs). The second stage involved the sampling of housing units within clusters selected within each EA. The third stage involved the random selection of one adult respondent in each sampled housing unit. SASH interviewers were trained in centralized group sessions lasting one week. The interviews were conducted face to face in six different languages: English, Afrikaans, Zulu, Xhosa, Northern Sotho, and Tswana. Interviews lasted an average of three and a half hours, with many requiring more than one visit to complete. Data were collected between January 2002 and June 2004. The overall response rate was 86%.

Measures

Mastery and self-esteem were measured in the same way in both samples. We used a 4-item version of Pearlin's mastery scale in which respondents indicated how strongly they agreed or disagreed with the following: that there is no way they can solve some of the problems they have, that they have little control over what happens to them, that they often feel helpless in dealing with the problems of life, and that there is little they can do to change many of the important things in their lives (Pearlin, Lieberman, Menaghan, & Mullan, 1981). A 4-item version of Rosenberg's (1979) self-esteem scale allowed respondents to report their agreement with the following: taking a positive attitude toward themselves, feeling satisfied with themselves, feeling useless at times, and thinking that they are no good at all. Each dependent variable was summed and coded such that high scores reflect high levels of each outcome.

Discrimination was measured in the same way in both studies. Acute discrimination is a count of the number of nine major experiences of *unfair treatment* in domains such as employment, education, housing and interactions with the police that respondents had experienced over their lifetime (Kessler et al., 1999). Experiences attributed to race/ethnicity (racial discrimination) were distinguished from those attributed to other social status categories (non-racial discrimination). In the U.S. data, zero experiences is the reference category which is compared to one, two to four, and five or more such experiences. In the South Africa sample, those reporting zero experiences of acute discrimination were compared to those reporting one, and more than one such experience. Everyday discrimination sums nine items that assessed the frequency of exposure to chronic discrimination, such as being treated with less courtesy and respect or receiving poorer service than others in restaurants and stores (Williams et al., 1997). Similar to the measurement of major discrimination, we distinguish racial from non-racial everyday discrimination. In both samples, no experience of everyday discrimination was contrasted with high (scores above the median) and low (below the median) levels.

The measures of stress were different in each study. In the NSAL, chronic stress is a count of how many of 10 chronic stressors respondents had experienced within the past month, and financial stress was a single item that assessed how difficult it was for the respondent to pay their bills. Negative interaction is a sum of the frequency with which respondents' families made too many demands, criticized them, and took advantage of them. Global life events, relationship events and domestic violence were the stressors assessed in in the South

Africa data. Global life events is a count of how many of 12 experiences (such as death of a loved one, criminal victimization and unemployment) that respondents experienced during the past twelve months. Relationship events is a count of whether respondents report serious ongoing disagreements or problems getting along with any family members, any close friend, or anyone at work. Being a perpetrator of domestic violence assessed the frequency with which the respondent had slapped or hit, thrown something at, or pushed, grabbed or shoved her/his spouse or partner. Being a victim of domestic violence assessed the frequency with which the respondent had been a recipient of the aforementioned actions from his spouse or partner.

In both countries, racial identification was assessed by a single item that asked how closely respondents felt in their ideas and feelings to other people of the same racial descent. In both samples, we included a 10-item scale of social desirability that captured a respondent's tendency to select a socially acceptable response, even though it may not be true (Zuckerman, Kuhlman, Joireman, Teta and Kraft, 1993). Whites were not asked social desirability questions in the U.S. sample. In the analyses their values were held constant at zero.

Racial/ethnic categories assessed in the NSAL were Non-Hispanic white, Caribbean black and African American while the SASH study provides data for blacks, whites, Coloureds and Indians. SES measures common to both samples were education, as years of schooling and income as total household income. Additional SES measures in the NSAL included ownership of two assets: a home and a computer. In the SASH, material resources was a count of the number of household and financial amenities that a respondent had such as running water, a refrigerator, a car, a checking account and a domestic servant, and wealth was assessed by having each respondent report if there would be any money left over if all assets were sold and all debts paid off. Demographic controls used were sex, age and marital status. Urban (versus rural) residence was an additional demographic factor in the SASH analyses.

Data Analyses

We examined comparatively the distribution of key independent and dependent variables by race/ethnicity. The basic multivariate analytic tool was ordinary least squares regression. We estimated the following models: Model 1 assessed the association between race and each measure of psychological status adjusted for socio-demographic factors. Model 2 added acute and chronic racial and non-racial discrimination. The third model added other stressors to model 2. Changes in the coefficient for acute and chronic discrimination from model 2 to model 3 would indicate the role of other stress in mediating the association between discrimination and psychological status. This model also allowed for the evaluation of the relative contribution of discrimination and other stressors to health. A fourth, fifth and sixth model assessed the extent to which the observed associations are independent of racial identity, social desirability, and SES. We also assessed the extent to which interactions existed between discrimination and SES, as well as racial identity in predicting self-esteem and mastery. Multiplicative interaction terms between each measure of discrimination and racial identity and SES were created and added to a model that contained all of the coefficients present in the full model.

Results

Table 1 presents descriptive analyses of key variables by racial/ethnic group. Compared to whites, African Americans and Caribbean blacks have higher levels of self-esteem and racial identity. Both black groups are more likely than whites to report ever having an acute experience of racial discrimination and experiencing a chronic incident at least monthly, but

they are also less likely than whites to report acute and chronic non-racial events. Compared to whites, African Americans have less household income, fewer years of education and are less likely to be home-owners. In contrast, only African Americans are less likely than whites to be computer owners. In contrast to the pattern observed for the U.S, whites in South Africa report higher levels of mastery and self-esteem than all non-white groups. Similar to the pattern in the U.S., all nonwhite groups in South Africa report higher levels of acute and chronic racial discrimination than their white peers. However, there is no significant racial difference for acute non-racial discrimination and both Indians and Blacks report higher levels of chronic non-racial discrimination than whites. Indians and especially blacks and Coloureds have markedly lower levels of income, education and employment than whites. Compared to whites, both blacks and Coloureds are less likely to report having any wealth and have lower levels of material resources.

Discrimination and Psychological Well-Being in the United States

Table 2 presents the relationship between perceived discrimination and mastery. Adjusted for demographic characteristics, there were no racial differences in mastery. Although acute *racial* discrimination was unrelated to mastery, those reporting one experience of major non-racial discrimination have lower levels of mastery than those who report none. Everyday racial and other discrimination are both inversely associated in a stepwise manner, with mastery. Adding discrimination to the model increases the explained variance by 3%. The addition of general stressors increases the proportion of explained variance by nearly 10%. Each measure of stress is inversely associated with mastery and these stressors mediate a substantial part of the relationship between discrimination and mastery: In addition, when general stressors are controlled African Americans score higher on mastery than whites and acute racial discrimination is *positively* related to mastery. Racial identity is unrelated to mastery. Social desirability is inversely related to mastery and when adjusted for social desirability the coefficients for both race and everyday racial discrimination became slightly larger. Of our SES measures included, education and income were positively associated with mastery. In addition, in the final model the coefficient for race became larger and the inverse associations between and both racial and non-racial everyday discrimination persisted. The standardized coefficients for everyday racial discrimination and especially stress are among the largest in the final model.

Table 3 presents the relationship between discrimination and self-esteem. Compared to whites, African Americans and Caribbean blacks have higher levels of self-esteem. Acute racial discrimination is unrelated to self-esteem but there is a strong stepwise graded association between acute non-racial discrimination and self-esteem. In the same way, those who report high levels of everyday racial discrimination have lower levels of self esteem than those reporting no such experiences. The addition of the discrimination measures increases the explained variance by 4%. As with the analyses focusing on mastery, the addition of general stressors makes the greatest contribution to explained variance in self-esteem (11%). The measures of stress were all inversely associated with self-esteem and the addition of general stress completely mediates the relationship between acute and chronic non-racial discrimination and self-esteem, and weakened the association between everyday racial discrimination and self-esteem. In contrast, after controlling for general stress a positive association emerges between acute racial discrimination and self-esteem and the effect of race becomes larger.

Racial identification was positively related to self-esteem, while social desirability is unrelated to self-esteem. The addition of these variables does little to change the previously observed patterns. Of the SES measures, employment status and computer ownership are positively associated with self-esteem. SES makes only a slight improvement to explained variance. With the addition of the SES variables the coefficients for race are slightly

strengthened, while those for major racial discrimination are slightly weakened. Thus in the full model, a complex pattern emerges for discrimination and other stressors. Acute racial discrimination is positively related to self-esteem, while general stressors and everyday racial and non-racial discrimination are inversely related to self-esteem.

Interactions

We also explored whether the effects of discrimination on mastery and self-esteem varied by racial identity and SES. There were no significant interactions between racial identity and any of the discrimination measures predicting self-esteem or mastery. A total of 16 interactions were tested between SES and discrimination for each outcome. For mastery, there were interactions between everyday racial discrimination with both income and education, such that the negative effect of discrimination was stronger at low rather than high levels of income and education. Similarly, a significant interaction between home-ownership and everyday racial discrimination revealed that the deleterious effect of discrimination on mastery was stronger for those who did not own homes, compared to home-owners. Four of the 16 interactions tested between discrimination and SES were significant for self-esteem but for three of them the pattern was opposite to that observed for mastery. For interactions between income and everyday nonracial discrimination, education and acute non-racial discrimination and computer ownership and acute non-racial discrimination, the negative effects of discrimination were stronger at high compared to low levels of SES. In contrast, the inverse relationship between major acute discrimination and self-esteem was stronger for persons who did not own their homes compared to home-owners.

Discrimination and Psychological Well-Being in South Africa

Table 4 presents the relationship between discrimination and mastery in South Africa. Unlike the pattern in the U.S., all non-white groups report lower levels of mastery than whites. Discrimination, especially chronic discrimination, is inversely related to mastery but has little effect on the association between race and mastery. Life events (but not other measures of stress) are inversely related to mastery. The consideration of stress makes modest reductions in the association between race and mastery and mediates some of the association between discrimination and mastery. However, both acute and chronic non-racial discrimination remain significantly related to mastery after adjustment for stress. Racial identity is positively related to mastery but has little effect on the other variables in the model. Social desirability is inversely related to mastery, but the observed associations between discrimination and mastery are largely unchanged from the prior model. Of the SES indicators considered, material resources and education are positively related to mastery. They explain a substantial portion of the relationship between race and mastery. Although the effects for race are still significant in this final model, the coefficients for blacks, Coloureds and Indians are reduced by 66%, 52% and 33%, respectively, after SES is considered. Two measures of stress, everyday non-racial discrimination, and life events remain strongly related to mastery in the final model.

Table 5 presents the relationship between perceived discrimination and self-esteem. All non-white groups report lower levels of self-esteem than whites. Acute non-racial discrimination and chronic discrimination, regardless of attribution, are inversely related to self-esteem. The inclusion of the measures of discrimination results in minimal reductions in the association between race and self-esteem. Model three shows that higher levels of life events and relationship stressors are associated with lower levels of self-esteem. Adjusting for stress is responsible for slight reductions in the coefficients for race from the prior model, but it markedly reduces the coefficients for acute and chronic non-racial discrimination to non-significance. The coefficient for chronic racial discrimination is also reduced but

remains significant. Racial identity is positively related to self esteem but its inclusion has little impact on the coefficients for race and discrimination. Similar, to the pattern in U.S. data, social desirability is unrelated to self-esteem. Material resources, wealth, income and education are all positively related to self-esteem. Strikingly, these SES indicators completely explain all of the residual racial differences in self-esteem, with indicators of SES followed by those for stress being the strongest predictors of self-esteem in the final model. It is also noteworthy that chronic racial discrimination remains predictive of self-esteem even after adjustment for all covariates.

Interactions

Similar to the patterns observed in the U.S. sample, there were no significant interactions between racial identity and discrimination in the South Africa sample. Of 32 interactions tested between SES and discrimination in predicting mastery and self-esteem, only six were significant. There was no clear patterning to these results. In some cases, discrimination had a greater negative impact on low SES respondents and in other cases the opposite pattern was evident.

Discussion

Using nationally representative samples in two racialized societies, we found that the levels of perceived racial discrimination were higher in the U.S. than in South Africa. It may be that in contexts of highly institutionalized discrimination and in which members of socially stigmatized groups have minimal interaction with dominant group members as equals, stigmatized group members may not perceive discrimination as an interpersonal phenomena. This could explain the pattern in these data, as well as, a consistent finding in U.S. data where older blacks (who experienced highly institutionalized patterns of discrimination) report lower levels of lifetime exposure to discrimination than their younger peers (Sigelman & Welch, 1991). At the same time, it was striking that in both societies, the levels of reported discrimination by non-dominant stigmatized populations were comparable. In contrast to the view that Caribbean blacks will differ from their U.S. peers in levels of discrimination (Kreiger et al. 2005), both black groups in the U.S. report very similar levels of racial and non-racial bias. Similarly, blacks, Coloureds and Indians in South Africa report comparable levels of discrimination. However, levels of acute non-racial discrimination were markedly higher in the U.S. than South Africa, but all non-whites in South Africa reported levels of non-racial everyday discrimination that were higher than those of blacks in the U.S. It is not clear whether this pattern reflects variations in major versus minor incidents of incivilities across the two societies or greater sensitivities to certain types of experiences in each society.

In two countries with a legacy of systemic racial discrimination, we found that experiences of discrimination that reflects this societal stigma mattered a lot for psychological well-being. In the U.S., chronic racial discrimination was inversely related to self esteem and mastery in the final model that controlled for a broad range of potential confounders. In South Africa, chronic non-racial discrimination was inversely related to mastery and chronic racial discrimination was negatively associated with self-esteem in the final model. These findings for discrimination are noteworthy, because they suggest that irrespective of attribution, the persistent enduring aspects of discrimination are the most consequential for psychological functioning and that the stress linked to discrimination is independent of conventional measures of stress and SES. Moreover, the salient role that other more traditional stressors played in predicting psychological status highlights the similarity in the potential pathogenic effects of perceived discrimination and other indicators of stress.

There were large racial differences in self-esteem and mastery in South Africa, with whites reporting higher levels of both of these psychological resources than non-whites. In contrast, when racial differences were observed in the U.S., blacks reported higher levels of psychological well-being than whites. SES and stress played a large role in accounting for the observed racial differences in self-esteem and mastery in South Africa. South Africa is a younger racial democracy than the U.S. with more marked racial inequalities in SES. This larger racial gap in the quality of life in South Africa may undergird the differences observed in the contribution of SES factors to self-esteem and mastery across societies. We found that in a young capitalist democracy (South Africa) where the value of financial success has quickly become important but where levels of stress and barriers to social mobility remain high for many, SES and stress explain a great deal of racial variations in beliefs about the self. The U.S. data highlight the potential for non-economic resources to play an important role in determining levels of psychological well-being, once some minimal levels of economic well-being are achieved. At the same time, even if the stigmatized can in some contexts protect their self-esteem and mastery from some of the negative consequences of institutionalized racism, the findings from both the U.S. and South Africa reveal that in the final analysis, the stigmatization reinforced by discrimination continues to matter for well-being.

The findings also point to important areas of future research. First, in our analyses, all non-racial types of discrimination were collapsed into a residual non-racial category. We need to understand the extent to which the psychological consequences of discrimination varies by the domain in which it occurs and by the psychological centrality of that social identity to the individual. For example, we are unaware of the relative salience of tribal affiliation versus racial designation for a traditional black South African. Second, we did not find a clear and consistent role for racial identity and SES in buffering the negative effects of discrimination on psychological functioning. Future research needs to give more attention to the social and psychological resources that stigmatized groups mobilize to monitor and manage discrimination.

There are several limitations of our analyses. First, our data are cross-sectional and do not enlighten us with regard to the causal dynamics among the variables examined. Second, although our questionnaire in South Africa was carefully translated and back-translated with the assistance of local language experts, we cannot be certain that all our constructs were equivalent across language or cultural subgroups. Even within the U.S., it is likely that reports of episodic, occasional experiences of discrimination by whites for whom group identity is often fluid, situational and volitional were qualitatively different from the structural and pervasive chronic exposure to discrimination reported by visibly stigmatized black groups for whom race is a master status. A third limitation is the limited assessment of some of the factors considered. For example, the single-item indicator of racial identity utilized fails to capture the multidimensional and dynamic nature of identity (Porter & Wahington, 1993). In spite of these limitations, our exploration of the nature, levels and potential psychological consequences of discrimination in two societies at the beginning of the 21st century, suggests that perceived discrimination, especially chronic discrimination, may be a potent pathogen that can undermine the psychological functioning and health of stigmatized populations in multiple contexts.

Acknowledgments

The South Africa Stress and Health study was funded by grant R01-MH059575 from the National Institute of Mental Health and the National Institute of Drug Abuse with supplemental funding from the South African Department of Health and the University of Michigan.

References

- Adams, JS.; Berkowitz, L. *Advances in Experimental Social Psychology*. Vol. Vol. 2. New York: Academic Press; 1965. Inequity in social exchange; p. 267-299.
- Anderson B, Berger J, Zelditch M Jr, Cohen BP. Reactions to inequity. *Acta Sociologica*. 1969; 12:1-12.
- Branscombe NR, Schmitt MT, Harvey RD. Perceiving Pervasive Discrimination Among African Americans: Implications for Group Identification and Well-Being. *Journal of Personality and Social Psychology*. 1999; 77:135-149.
- Clark R, Anderson NB, Clark VR, Williams DR. Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist*. 1999; 54(10):805-816. [PubMed: 10540593]
- Cohen, S.; Kessler, RC.; Gordon, LU. Strategies for Measuring Stress in Studies of Psychiatric and Physical Disorders. In: Cohen, S.; Kessler, RC.; Lynn, UG., editors. *Measuring Stress: A Guide for Health and Social Scientists*. New York: Oxford University Press; 1995. p. 3-26.
- Crocker J, Major B. Social Stigma and Self-Esteem: The Self-Protective Properties of Stigma. *Psychological Review*. 1989; 96:608-630.
- Dion KL. The social psychology of perceived prejudice and discrimination. *Canadian Psychology*. 2001; 43(1):1-10.
- Goffman, E. *Stigma: Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice Hall; 1963.
- Guyll M, Matthews KA, Bromberger JT. Discrimination and unfair treatment: relationship to cardiovascular reactivity among African American and European American women. *Health Psychology*. 2001; 20(5):315-325. [PubMed: 11570645]
- Harrell J, Hall S, Taliaferro J. Physiological responses to racism and discrimination: an assessment of the evidence. *American Journal of Public Health*. 2003; 93(2):243-248. [PubMed: 12554577]
- Harris R, Tobias M, Jeffreys M, Waldegrave K, Karlsen S, Nazroo J. Racism and health: the relationship between experience of racial discrimination and health in New Zealand. *Social Science & Medicine*. 2006; 63(6):1428-1441. [PubMed: 16740349]
- Jackman, MR. *The Velvet Glove: Paternalism and Conflict in Gender, Class, and Race Relations*. Los Angeles, CA: University of California Press; 1994.
- Jackson JS, Torres M, Caldwell CH, Neighbors HW, Nesse RM, Taylor RJ, et al. The National Survey of American Life: a study of racial, ethnic and cultural influences on mental disorders and mental health. *International Journal of Methods in Psychiatric Research*. 2004; 13(4):196-207. [PubMed: 15719528]
- James, W.; Lever, J. *Beyond Racism: Embracing an Interdependent Future*. Atlanta, GA: Southern Education Foundation; 2000. *The Second Republic: Race, Inequality and Democracy in South Africa*; p. 43-59.
- Kessler RC, Mickelson KD, Williams DR. The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior*. 1999; 40:208-230. [PubMed: 10513145]
- Krieger N. Embodying Inequality: A review of concepts, measures, and methods for studying health consequences of discrimination. *International Journal of Health Services*. 1999; 29(2):295-352. [PubMed: 10379455]
- Lewis T, Everson-Rose S, Powell LH, Matthews KA, Brown C, Karavolos K, et al. Chronic Exposure to Everyday Discrimination and Coronary Artery Calcification in African-American Women: The SWAN Heart Study. *Psychosomatic Medicine*. 2006; 68:362-368. [PubMed: 16738065]
- Link BG, Phelan JC. Conceptualizing Stigma. *Annual Review of Sociology*. 2001; 27:363-385.
- Paradies Y. A systematic review of empirical research on self-reported racism and health. *International Journal of Epidemiology*. 2006; 35(4):888-901. [PubMed: 16585055]
- Pearlin L, Lieberman M, Menaghan E, Mullan J. The Stress Process. *Journal of Health and Social Behavior*. 1981; 22:337-356. [PubMed: 7320473]
- Porter JR, Washington RE. Minority identify and self-esteem. *Annual Review of Sociology*. 1993; 19:139-161.

- Ren XS, Amick B, Williams DR. Racial/ethnic disparities in health: The interplay between discrimination and socioeconomic status. *Ethnicity and Disease*. 1999; 9(2):151–165. [PubMed: 10421078]
- Rosenberg, M. *Conceiving the Self*. New York: Basic Books; 1979.
- Sigelman, L.; Welch, S. *Black Americans' Views of Racial Inequality: The Dream Deferred*. Cambridge, MA: Harvard University Press; 1991.
- Smelser, N.; Wilson, WJ.; Mitchell, F. *America Becoming: Racial Trends and Their Consequences*. Washington, DC: National Academy of Sciences Press; 2001.
- Taylor J, Turner RJ. Perceived Discrimination, Social Stress, and Depression in the Transition to Adulthood: Racial Contrasts. *Social Psychology Quarterly*. 2002; 65(3):213–225.
- Troxel WM, Matthews KA, Bromberger JT, Sutton-Tyrrell K. Chronic Stress Burden, Discrimination, and Subclinical Carotid Artery Disease in African American and Caucasian Women. *Health Psychology*. 2003; 22(3):300–309. [PubMed: 12790258]
- Twenge JM, Crocker J. Race and Self-Esteem: Meta-Analyses Comparing Whites, Blacks, Hispanics, Asians, and American Indians and Comment on Gray-Little and Hafdahl (2000). *Psychological Bulletin*. 2002; 128(3):371–408. 409–320. [PubMed: 12002695]
- Walster, E.; Walster, GW.; Berschied, E. *Equity: Theory and Research*. Boston: Allyn and Bacon; 1978.
- Williams DR, Lavizzo-Mourey R, Warren RC. The Concept of Race and Health Status in America. *Public Health Reports*. 1994; 109:26–41. [PubMed: 8303011]
- Williams, DR. Race, stress, and mental health: Findings from the Commonwealth Minority Health Survey. In: Hogue, C.; Hargraves, M.; Scott-Collins, K., editors. *Minority Health in America: Findings and Policy Implications From the Commonwealth Minority Health Survey*. Baltimore, Maryland: Johns Hopkins University Press; 2000. p. 209-243.
- Williams DR, Neighbors HW, Jackson JS. Racial/ethnic discrimination and health: findings from community studies. *American Journal of Public Health*. 2003; 93(2):200–208. [PubMed: 12554570]
- Williams, DR.; Spencer, M.; Jackson, JS. Race, stress, and physical health: the role of group identity. In: Contrada, RJ.; Ashmore, RD., editors. *Self, Social Identity, and Physical Health: Interdisciplinary Explorations*. New York: Oxford University Press; 1999. p. 71-100.
- Williams DR, Herman A, Kessler RC, Sonnega J, Seedat S, Stein D, Moomal H, Wilson C. The South Africa Stress and Health Study: Rationale and Design. *Metabolic Brain Disease*. 2004; 19:135–147. [PubMed: 15214513]
- Williams DR, Yu Y, Jackson J, Anderson N. Racial differences in physical and mental health: socioeconomic status, stress, and discrimination. *Journal of Health Psychology*. 1997; 2(3):335–351. [PubMed: 22013026]
- Zuckerman M, Kuhlman DM, Joireman J, Teta P. A comparison of three structural models for personality: The Big Three, the Big Five, and the Alternative Five. *Journal of Personality and Social Psychology*. 1993; 65(4):757–768.

Table 1

Means and Percentage Distribution of Key Variables

Variables	UNITED STATES					SOUTH AFRICA			
	African Americans	Caribbean Blacks	Whites	Black	Coloured	Indian	White		
1. Mastery	12.80(.07)	12.38(.32)	12.77(.13)	10.20(.10)	11.00(.31)	11.10(.43)	12.50(.19)		
2. Self-esteem	14.18(.06)*	14.21(.13)*	13.58(.14)	12.30(.07)	12.60(.17)	12.80(.18)	13.60(.22)		
3. Racial Identification	3.44(.02)*	3.34(.04)*	3.17(.03)	0.64(.02)	1.16(.05)	1.27(.15)	1.87(.14)		
<i>Discrimination (%)</i>									
4. Major Racial	42.27(4.60)*	42.27(4.6)	9.37(1.16)	7.42(.85)*	7.53(1.57)*	10.20(2.3)*	2.64(.73)		
5. Major Other	38.00(1.18)	37.38(2.13)	50.28(2.19)	16.50(1.0)	14.20(1.85)	20.27(3.9)	17.84(2.8)		
6. Everyday Racial	34.54(1.00)*	32.58(2.96)*	3.20(.68)	11.73(.96)*	12.13(2.1)*	13.31(3.9)*	3.88(2.2)		
7. Everyday Other	14.16(.87)*	17.66(1.71)	29.65(2.98)	34.8(1.67)*	21.9(3.6)	27.63(3.3)	25.01(3.6)		
<i>Socioeconomic Status</i>									
8. Median Income	\$28,287*	\$35,699	\$40,000	R4500*	R16500*	R33250*	R67500		
<i>Education</i>									
a. % < High School	24.30(1.2)*	20.9(2.3)	15.1(2.4)	65.57(1.18)*	66.32(2.97)*	36.78(8.09)	30.65(3.09)		
b. % High School	37.7(1.1)*	29.7(1.6)	31.2(2.8)	23.0(.85)	15.9(2.33)*	34.2(3.5)	28.5(5.3)		
c. % > High School	38.0(1.6)*	49.4(2.7)	53.7(4.7)	11.43(.75)*	17.7(2.87)*	29.0(5.9)*	40.86(8.0)		
10. % Employed	66.8(1.1)*	75.2(1.7)	72.6(2.2)	27.32(1.49)*	36.71(3.97)*	30.01(1.30)*	53.62(3.58)		
11. % Home-ownership-US	49.9(1.9)*	45.0(2.6)*	62.8(5.5)						
12. % Computer Ownership-US	46.0(1.5)*	62.8(2.7)*	67.3(2.8)						
13. % Some Wealth-SA				17.8(1.23)*	31.45(3.29)*	43.53(6.0)	42.52(6.4)		
14. Assets-SA				6.15(.14)*	11.08(.36)*	13.2(.42)	14.8(.30)		

* p .05;

** p .05;

*** p .001

Table 2
Unstandardized and [standardized] Regression Coefficients Predicting Mastery, United States

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
1. Sex (Female)	.04(.11)	-.11(.13)	.28(.13)*	.30(.11)*	.28(.11)*	.26(.11) [.04]*
2. Age	-.03(.01)*	-.04(.01)*	-.05(.01)*	-.05(.01)*	-.05(.01)*	-.04(.01) [-.19]*
3. Married	.53(.17)*	.49(.16)*	.29(.15)	.24(.15)	.23(.15)	.02(.15) [.00]
4. Race						
a. African American	.02(.15)	.24(.16)	.35(.16)*	.32(.17)	.58(.18)*	.73(.19) [.12]*
b. Caribbean Black	-.49(.34)	-.29(.32)	-.13(.31)	-.16(.31)	.09(.33)	.14(.32) [.01]
5. Major Racial (none=omitted)						
a. 1		-.05(.17)	.11(.17)	.12(.17)	.11(.17)	.05(.16) [.01]
b. 2-4		-.21(.22)	.09(.20)	.09(.19)	.08(.19)	-.06(.19) [-.01]
c. 5+		.05(.23)	.44(.19)*	.41(.19)*	.39(.19)*	.18(.20) [.02]
6. Major Other (none=omitted)						
a. 1		-.41(.18)*	-.23(.22)	-.22(.23)	-.22(.23)	-.22(.20) [-.03]
b. 2-4		-.21(.16)	.19(.13)	.31(.18)	.31(.18)	.24(.19) [.03]
c. 5+		-.43(.29)	.07(.30)	.10(.34)	.11(.35)	.01(.37) [.00]
7. Everyday Racial (none=omitted)						
a. Low		-.55(.24)*	-.34(.20)	-.40(.21)	-.43(.21)*	-.52(.23) [-.06]*
b. High		-1.39(.23)*	-.90(.20)*	-.98(.23)*	-1.01(.22)*	-1.00(.20) [-.12]*
8. Everyday Other (none=omitted)						
a. Low		-.44(.20)*	-.19(.20)	-.26(.16)	-.26(.16)	-.31(.17) [-.04]
b. High		-1.02(.31)*	-.52(.23)*	-.64(.30)*	-.64(.30)*	-.62(.30) [-.08]*
9. Chronic Stress						
a. Low		-.37(.06)*	-.39(.05)*	-.39(.05)*	-.40(.05)*	-.37(.05) [-.18]*
b. High		-.43(.06)*	-.43(.06)*	-.45(.06)*	-.44(.06)*	-.36(.06) [-.14]*
10. Financial Stress						
a. Low		-.51(.12)*	-.46(.11)*	-.46(.11)*	-.45(.11)*	-.44(.11) [-.10]*
b. High		.14(.08)	.14(.08)	.14(.08)	.15(.08)	.16(.08) [.04]*
11. Negative Interaction						
a. Low						
b. High						
12. Racial Identification						
a. Low						
b. High						
13. Social Desirability						
a. Low						
b. High						

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
14. Employment						.27(.18) [.04]
15. Education						.13(.04) [.12] *
16. Income (log)						.11(.05) [.05] *
17. Home-ownership (owner)						-.00(.12) [-.00]
18. Computer Ownership (owner)						.28(.20) [.05]
Constant	13.87	14.93	16.93	16.53	16.48	12.60 [0.0]
R ²	.0312	.0616	.1544	.1649	.1674	.1931
ΔR^2			.0928	.0105	.0025	.0257

*
p .05;**
p .05;***
p .001

Table 3
Unstandardized and [standardized] Regression Coefficients Predicting Self-Esteem, United States

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
1. Sex (Female)	-.11(.12)	-.24(.14)	.07(.13)	.07(.14)	.07(.14)	.08(.14) [.02]
2. Age	.00(.00)*	-.00(.00)	-.01(.00)	-.01(.00)	-.01(.00)	-.00(.00) [-.01]
3. Married	.40(.14)*	.35(.15)*	.18(.14)	.14(.13)	.14(.13)	.05(.13) [.01]
4. Race						
a. African American	.67(.16)*	.69(.16)*	.78(.15)*	.75(.16)*	.74(.16)*	.81(.16) [.17]*
b. Caribbean Black	.68(.20)*	.68(.21)*	.82(.21)*	.78(.21)*	.77(.21)*	.80(.22) [.07]*
5. Major Racial (none=omitted)						
a. 1		.08(.14)	.21(.15)	.24(.15)	.24(.15)	.21(.14) [.03]
b. 2-4		.12(.13)	.37(.14)*	.37(.14)*	.37(.14)*	.32(.14) [.04]*
c. 5+		.06(.16)	.38(.15)*	.35(.15)*	.35(.15)*	.29(.14) [.04]
6. Major Other (none=omitted)						
a. 1		-.26(.10)*	-.11(.12)	-.12(.12)	-.12(.12)	-.11(.12) [-.02]
b. 2-4		-.54(.18)*	-.19(.17)	-.09(.21)	-.09(.21)	-.12(.20) [-.02]
c. 5+		-.62(.15)*	-.22(.16)	-.20(.19)	-.20(.19)	-.24(.21) [-.03]
7. Everyday Racial (none=omitted)						
a. Low		-.29(.20)	-.11(.16)	-.15(.17)	-.15(.17)	-.20(.17) [-.03]
b. High		-.87(.18)*	-.45(.13)*	-.47(.14)*	-.47(.14)*	-.50(.14) [-.08]*
8. Everyday Other (none=omitted)						
a. Low		-.43(.19)*	-.22(.15)	-.21(.16)	-.21(.16)	-.26(.15) [-.05]
b. High		-.79(.26)*	-.36(.19)	-.44(.21)*	-.44(.21)*	-.46(.21) [-.08]*
9. Chronic Stress			-.33(.06)*	-.35(.06)*	-.35(.06)*	-.34(.06) [-.22]*
10. Financial Stress			-.33(.09)*	-.33(.09)*	-.33(.09)*	-.30(.09) [-.15]*
11. Negative Interaction			-.43(.09)*	-.39(.08)*	-.39(.08)*	-.38(.08) [-.12]*
12. Racial Identification				.19(.09)*	.19(.09)*	.20(.08) [.06]*
13. Social Desirability					.05(.25)	.19(.25) [.01]

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
14. Employment						.44(.11) [.09]*
15. Education						.02(.03) [.02]
16. Income (log)						-.03(.03) [-.01]
17. Home-ownership (owner)						.10(.11) [.02]
18. Computer Ownership (owner)						.22(.10) [.05]*
Constant	13.26	14.17	15.80	15.22	15.22	14.38
R ²	.0262	.0650	.1734	.1845	.1845	.1951
ΔR^2		.0388	.1084	.0111	0	.0106

*
p .05;**
p .05;***
p .001

Table 4
Unstandardized and [standardized] Regression Coefficients Predicting Mastery, South Africa

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
1. Sex (Female)	-.66(.15)***	-.68(.14)***	-.64(.14)***	-.62(.14)***	-.61(.14)***	-.55(.13) [-.08]***
2. Age	-.01(.01)**	-.02(.00)***	-.02(.01)***	-.02(.00)***	-.02(.00)***	-.00(.00) [-.01]
3. Married	.26(.15)	.28(.15)	.36(.14)*	.35(.15)*	.40(.14)**	.35(.13)[.05]
4. Location (Urban)	.55(.17)**	.54(.18)**	.54(.17)**	.53(.17)**	.49(.17)**	.09(.13) [.01]
5. Race						
a. Black	-2.16(.25)***	-2.04(.27)***	-1.76(.27)***	-1.79(.26)***	-1.72(.26)***	-.59(.28) [-.07]*
b. Coloured	-1.42(.37)***	-1.46(.41)***	-1.31(.39)***	-1.35(.38)***	-1.29(.38)***	-.62(.29) [-.05]*
c. Indian	-1.46(.44)**	-1.41(.46)**	-1.26(.41)**	-1.29(.39)**	-1.18(.37)**	-.80(.36) [-.04]*
6. Major Racial (none=omitted)						
a. 1	.21(.28)	.21(.28)	.37(.29)	.36(.29)	.34(.28)	.22(.37) [.01]
b. >1	.02(.39)	.02(.39)	.30(.39)	.28(.38)	.25(.38)	.03(.33) [.00]
7. Major Other (none=omitted)						
a. 1	-.12(.21)	-.12(.21)	.18(.20)	.16(.20)	.18(.20)	.14(.22) [.01]
b. >1	-.72(.18)***	-.72(.18)***	-.48(.18)**	-.49(.18)**	-.43(.18)*	-.47(.25) [-.04]
8. Everyday Racial (none=omitted)						
a. Low	.38(.29)	.38(.29)	.34(.29)	.36(.28)	.27(.28)	.21(.26) [.01]
b. High	-.60(.31)*	-.60(.31)*	-.43(.31)	-.37(.31)	-.46(.31)	-.42(.26) [-.03]
9. Everyday Other (none=omitted)						
a. Low	-.83(.22)***	-.83(.22)***	-.78(.22)***	-.75(.22)***	-.78(.21)***	-.81(.17) [-.08]***
b. High	-1.07(.18)***	-1.07(.18)***	-.88(.18)***	-.83(.18)***	-.86(.18)***	-.79(.18) [-.08]***
10. Global Life Events						
a. Low	-.28(.05)***	-.28(.05)***	-.28(.05)***	-.28(.05)***	-.27(.05)***	-.25(.04) [-.13]***
b. High	-.06(.10)	-.06(.10)	-.06(.10)	.06(.10)	.04(.10)	-.00(.10) [-.00]
11. Relationship Events						
a. Low	-.18(.13)	-.18(.13)	-.18(.13)	-.17(.13)	-.20(.13)	-.15(.13) [-.03]
b. High	-.20(.13)	-.20(.13)	-.20(.13)	-.20(.13)	-.21(.12)	-.16(.12) [-.03]
12. Domestic Violence--Perpetrator						
a. Low	.27(.11)**	.27(.11)**	.27(.11)**	.27(.11)**	.28(.10)**	.26(.08) [.06]***
b. High	-.14(.04)***	-.14(.04)***	-.14(.04)***	-.14(.04)***	-.14(.04)***	-.13(.03) [-.08]***
13. Domestic Violence--Victim						
a. Low	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08) [.06]***
b. High	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03) [-.08]***
14. Racial Identity						
a. Low	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08) [.06]***
b. High	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03) [-.08]***
15. Social Desirability						
a. Low	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08)***	.26(.08) [.06]***
b. High	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03)***	-.13(.03) [-.08]***

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
16. Other Assets						.09(.02) [.12]***
17. Education						.11(.02) [.12]***
18. Income (log)						.08(.08) [.02]
19. Wealth (some wealth)						
a. No wealth/debt						-.27(.18) [-.03]
b. Don't know/refused						.08(.17) [.01]
Constant	12.8	13.3	13.7	12.82	13.1	10.4
R ²	0.058	0.081	0.103	0.106	0.114	0.143
Δ R ²		0.023	0.022	0.003	0.008	0.029

* p .05;

** p .05;

*** p .001

Table 5
Unstandardized and [standardized] Regression Coefficients Predicting Self-Esteem, South Africa

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
1. Sex (Female)	-.32(.09)***	-.35(.08)***	-.32(.08)***	-.31(.08)***	-.31(.08)***	-.27(.09) [-.05]**
2. Age	-.01(.00)**	-.01(.00)***	-.01(.00)***	-.01(.00)***	-.01(.00)***	-.00(.00) [-.01]
3. Married	.10(.10)	.11(.10)	.19(.09)*	.19(.10)	.18(.09)	.11(.09) [.02]
4. Location (Urban)	-.05(.14)	-.05(.14)	-.04(.14)	-.05(.14)	-.04(.14)	-.36(.01) [-.07]***
5. Race						
a. Black	-1.35(.25)***	-1.26(.24)***	-1.12(.25)***	-1.15(.24)***	-1.17(.24)***	-.18(.20) [-.03]
b. Coloured	-1.01(.29)***	-.99(.28)***	-.92(.29)**	-.94(.28)**	-.95(.28)***	-.40(.21) [-.05]
c. Indian	-.78(.26)***	-.72(.26)**	-.66(.25)**	-.68(.25)**	-.71(.24)**	-.39(.27) [-.03]
6. Major Racial (none=omitted)						
a. 1		-.07(.26)	.06(.27)	.05(.26)	.06(.26)	-.06(.26) [-.00]
b. >1		.10(.32)	.31(.31)	.30(.31)	.30(.31)	.11(.27) [.01]
7. Major Other (none=omitted)						
a. 1		-.27(.14)	-.09(.15)	-.10(.15)	-.10(.15)	-.14(.17) [-.02]
b. >1		-.44(.16)**	-.25(.17)	-.26(.17)	-.28(.17)	-.33(.18) [-.04]
8. Everyday Racial (none=omitted)						
a. Low		-.16(.24)	-.16(.23)	-.15(.23)	-.13(.23)	-.19(.21) [-.02]
b. High		-.75(.23)**	-.58(.23)*	-.55(.23)*	-.53(.23)*	-.51(.21) [-.05]*
9. Everyday Other (none=omitted)						
a. Low		-.20(.14)	-.13(.14)	-.12(.14)	-.11(.14)	-.14(.12) [-.02]
b. High		-.46(.14)**	-.28(.14)	-.25(.14)	-.24(.14)	-.20(.13) [-.03]
10. Global Life Events			-.15(.03)***	-.15(.03)***	-.15(.03)***	-.13(.03) [-.09]***
11. Relationship Events			-.19(.07)**	-.18(.06)**	-.18(.06)**	-.22(.07) [-.06]**
12. Domestic Violence--Perpetrator			-.14(.12)	-.13(.13)	-.13(.12)	-.11(.12) [-.03]
13. Domestic Violence--Victim			-.18(.09)	-.18(.09)	-.18(.09)	-.14(.11) [-.04]
14. Racial Identity				.17(.06)**	.16(.06)**	.14(.06) [.04]*
15. Social Desirability					.03(.02)	.04(.02) [.04]

Variables	Model 1 b(se)	Model 2 b(se)	Model 3 b(se)	Model 4 b(se)	Model 5 b(se)	Model 6 b(se) & β
16. Other Assets						.07(.01) [.14] ***
17. Education						.07(.01) [.11] ***
18. Income (log)						.13(.05) [.05] **
19. Wealth (some wealth)						
a. No wealth/debt						-.36(.13) [.07] **
b. Don't know/refused						-.13(.11) [-.03]
Constant	14.5	14.8	15.2	14.61	4.5	12.7
R ²	0.031	0.043	0.065	0.067	0.068	0.108
Δ R ²		0.012	0.022	0.002	0.001	0.040
* p .05;						
** p .05;						
*** p .001						