

Is It Always Good to Feel Valued?  
The Psychological Benefits *and* Costs of Higher Perceived Status  
in One's Ethnic Minority Group

Reference

Begeny, C. T. & Huo, Y. J. (2018). Is it always good to feel valued? The psychological benefits and costs of higher perceived status in one's ethnic minority group. *Group Processes & Intergroup Relations*, 21(1), 193–213. doi:10.1177/1368430216656922

TOAL WORD COUNT: 8,401 (excluding abstract, references, tables/figures)

### Abstract

Two studies ( $N=1,048$ ) examined how Blacks', Asians' and Latinos' perceived value within their own ethnic group (ethnic intragroup status) shapes mental health (depression, anxiety, psychological distress). The proposed intragroup status and health (ISAH) model predicts that feeling valued among ethnic ingroup members has benefits for health, but also indirect costs. Costs arise because individuals who feel highly valued in their ethnic group see their ethnicity as more central to their self-concept; with stronger identity-centrality, individuals more frequently view daily social interactions through the 'lens' of their ethnicity and ultimately perceive/experience more discrimination. Discrimination, in turn, adversely shapes mental health. Results of structural equation modeling supported these predictions across all groups in both studies. Thus, feeling valued in one's minority group may be a double-edged sword for mental health. Overall, the ISAH model reveals how intragroup processes, when considered from an intergroup perspective, advance our understanding of minority mental health.

*Keywords:* social identity; discrimination; status; health and well-being

Is It Always Good to Feel Valued? The Psychological Benefits *and* Costs of Higher Perceived Status in One's Ethnic Minority Group

By 2040, ethnic minorities are projected to outnumber Whites in the United States (U.S. Census, 2012). Despite representing a large and growing portion of the U.S. population, minorities continue to encounter ethnic discrimination, which negatively affects mental health (Pascoe & Smart Richman, 2009; Williams, Neighbors & Jackson, 2003). Undoubtedly, intergroup experiences such as ethnic discrimination contribute to the state of minorities' mental health. But relations with ethnic ingroup members also play an important role. Emerging research shows that minorities who feel valued and respected among members of their own ethnic group have lower levels of psychological distress, anxiety and greater well-being (Huo, Binning & Begeny, 2015; Postmes & Branscombe 2002; Wolff, Subramanian, Acevedo-Garcia, Weber & Kawachi, 2010).

Based on these two bodies of research, one may reasonably conclude that discrimination has negative implications for minorities' mental health, while feeling valued in one's ethnic group (i.e., looked up to or highly regarded) has positive implications. However, this straightforward assessment (that inter- and intragroup experiences have independent effects on health) may not adequately capture the dynamic between ingroup and outgroup sources of social evaluative feedback (Ellemers, Doosje, & Spears, 2004). In the current research, we introduce a novel conceptual model that describes how feeling highly valued in one's ethnic group shapes mental health both directly and indirectly through its influence on minorities' experiences with outgroup members (i.e., with ethnic discrimination). In a departure from past research, which focuses on the benefits of feeling valued and respected among ingroup members (e.g., for

psychological well-being; Huo, Binning, & Molina, 2010; Postmes & Branscombe, 2002; Smith, Tyler, & Huo, 2003), the proposed intragroup status and health (ISAH) model suggests that these benefits, when considered in the context of intergroup relations, may be accompanied by downstream costs for mental health.

Integrating theories on intragroup relations, self-categorization processes and minority health, the ISAH model explains how feeling admired and highly valued within one's ethnic minority group can have both benefits and potential costs for mental health. Costs arise because higher perceived status among ingroup members can shape one's self-concept in ways (e.g., greater perceived embodiment of prototypical qualities, more salient ethnic identity) that lead to more frequent perceptions/experiences of ethnic discrimination, which can negatively impact mental health. Thus, overall, the ISAH model proposes two pathways through which perceptions of status in one's ethnic minority group shape mental health. The benefits path captures the positive effects of feeling highly valued among ingroup members, and the costs path explains its negative indirect effects on mental health (see Figure 1).

While the health benefits of intragroup status are consistent with previous work on intragroup processes, the mental health *costs* outlined in this model have not been considered before. They are only illuminated when intragroup relations are considered in the context of key intergroup experiences (i.e., expressions of discrimination). Previous research has not conceptually integrated these processes in a way that would reveal such health costs and so the ISAH model represents a unique perspective on the dynamic between inter- and intragroup sources of social evaluative feedback. Thus, overall, the ISAH model provides a novel, theoretically integrated framework for understanding the multiple ways through which intragroup relations shape individuals' mental health.

Two studies assessed the validity of the ISAH model. While relevant previous work has focused largely on a single racial/ethnic group (Blacks/African Americans), the current studies examine the experiences of Blacks along with the two fastest growing ethnic groups in the U.S.—Asians and Latinos. This enables direct empirical comparisons across groups.

### **Benefits of Intragroup Status**

The benefits path of the ISAH model highlights the positive association between feeling valued in one's ethnic group and mental health. This pathway is motivated by theory and research suggesting that within self-relevant groups individuals attend to signals coming from other group members (authority figures and ingroup peers) indicating their standing within the group (Ellemers et al., 2004; Tyler & Blader, 2003; Tyler, DeGoey, & Smith, 1996). Individuals are motivated to discern their standing within groups because it provides identity-relevant information and guides appraisals of self-worth (Smith et al., 2003). In the current research, individuals' standing in a group is referred to as intragroup status (akin to intragroup standing and status-based respect; see Huo et al., 2010), which reflect perceptions of being looked up to, highly regarded or admired by other ingroup members. From this perspective, intragroup status does not reflect a formally established position in the group (e.g., based on job title) but instead reflects a subjective 'position' based on the degree to which one's personal qualities and characteristics are collectively admired by the group (Emler & Hopkins, 1990).

Previous research suggests higher perceived intragroup status may be beneficial for mental health. For example, field studies and lab experiments show that it bolsters individuals' self-esteem, life satisfaction and general well-being (Anderson, Kraus, Galinsky & Keltner, 2012; Huo et al., 2010; Smith et al., 2003). Notably, however, previous work has focused on the more distal aspects of mental health (e.g., self-esteem, well-being). It remains unclear whether

perceived intragroup status also shapes more direct indicators of mental health per se (e.g., anxiety, depressive symptoms). These indicators are important in their own right, but are also critical to examine because they are linked to several physical health outcomes including diabetes, increased blood pressure, body fat distribution and increased risk of mortality (Adler, Epel, Castellazzo & Ickovics, 2000; Moussavi et al., 2007; Russ et al., 2012).

Previous research has also not considered the mental health implications of feeling valued (or devalued) within *ethnic* groups (though, for minority-related work on intragroup respect in the context of other types of groups, see Huo et al., 2010). Because racial and ethnic groups are culturally salient social categorizations in the United States, particularly for ethnic minorities, perceived status within these groups may be a particularly relevant referent for self-evaluative purposes and thus shape mental health. Also, for targets of ethnic discrimination, the ethnic ingroup can serve as a preferred, arguably more legitimate source of social evaluation (Crocker & Major, 1989). Thus, for multiple reasons, minorities' perceived status within their ethnic group is likely to have meaningful implications for their mental health.

### **Indirect Costs of Intragroup Status**

In contrast to the benefits path, the costs path of the ISAH model highlights the indirect negative association between intragroup status and mental health. This path describes how perceptions of ethnic intragroup status can frame minorities' experiences with ethnic outgroup members and yield negative downstream consequences for mental health (i.e., by shaping their ethnic identity in ways that increase perceptions/experiences with discrimination). Integrating theory and research on intragroup relations, self-categorization processes and minority mental health, the costs path highlights the novel possibility that higher intragroup status is not uniformly positive, as previous research suggests.

***Intragroup status and identity.*** Intragroup research suggests that being valued in a group not only promotes mental health but also greater cognitive attachment to the group. Meaning, individuals with higher perceived status are more likely to view that group as important or central to their self-concept (i.e., stronger ethnic identity-centrality; Leach et al., 2008; Simon & Stürmer, 2003; Tyler & Blader, 2002). This may be in part because individuals with higher perceived status are seen as more prototypical—representing a stronger embodiment of the values and characteristics that help define the group as a whole (Fielding & Hogg, 1997; Hogg, 2001). With a stronger perceived ‘fit’ or match between their personal characteristics and those that define the group as a whole, higher status individuals are more likely to see that group as defining or central to who they are (van Knippenberg & van Knippenberg, 2005; for a similar argument see Wright, Aron and Tropp, 2002).

***Identity, discrimination and health.*** While stronger identity-centrality has positive implications for group functioning (e.g., increased group-oriented behavior; Tyler & Blader, 2003), research on intergroup relations suggests that it also has some *negative* implications for individuals’ mental health. Individuals whose ethnic identity is central to their self-concept are more likely to use that identity as a cognitive schema or ‘lens’ through which they view and interpret their social experiences (Smith, Coats, & Walling, 1999). Consequently, they are more vigilant to threats to their ethnic group and perceive more discrimination (Crocker, Voelkl, Testa, & Major, 1991; Sellers & Shelton, 2003). Perceptions of discrimination in turn predict adverse mental health outcomes (Pascoe & Smart Richman, 2009). In support of this perspective, laboratory experiments found that minorities high in ethnic identity-centrality perceive greater discrimination than those low in identity-centrality (Operario & Fiske, 2001). Longitudinal research also found that Black college students higher in ethnic identity-centrality report more

frequent experiences of discrimination over time (controlling for baseline reports of discrimination), and that discrimination predicts higher levels of psychological distress over time (controlling for initial levels of distress; Sellers & Shelton, 2003). Together, these findings suggest that stronger ethnic identity-centrality can increase perceptions/experiences of discrimination in daily life and, consequently, adversely impact mental health. Thus, another key prediction of the ISAH model is that intragroup status will predict lower mental health through its promotion of identity-centrality and heightened perceptions of discrimination (ethnic intragroup status → identity-centrality → perceived discrimination → lower mental health; the costs path).

To note, highly identified minorities may not only *perceive* more discrimination but also be *subject to* more discrimination. Research shows that Whites actually express more negative attitudes toward highly identified minorities (Kaiser & Pratt-Hyatt, 2009). Therefore, the link between ethnic identity-centrality and discrimination may be explained by internal cognitive factors (e.g., perceptions of discrimination in ambiguous situations, greater vigilance and detection of discrimination), as well as external factors (e.g., Whites' attitudes toward highly identified minorities). Importantly, these perspectives converge on the prediction that highly identified minorities will report more frequent experiences of discrimination.

It is also important to note that some researchers have previously considered the dynamics between minority intragroup relations, perceived discrimination and well-being (e.g., the rejection-identification model; Branscombe, Schmitt & Harvey, 1999; Postmes & Branscombe, 2002). However, this work has not focused on how positive intragroup relations can promote perceptions/experiences of discrimination, nor how positive intragroup relations can have negative indirect health effects. Previous work has also tended to focus on affective



dimensions of ethnic identity (e.g., pride) whereas the current research focuses on cognitive aspects (see Leach et al., 2008). Thus, the conceptual framework and predictions provided by the ISAH model are quite distinct from those outlined in previous work.

### **Evaluating the ISAH Model among Blacks, Asians and Latinos**

The current research tests the validity of the ISAH model among Blacks, Asians and Latinos. Relevant research has largely focused on Blacks, so it remains unclear whether the hypothesized processes in the ISAH model will function similarly among other minority groups. One possibility is that these processes will be more evident among Blacks compared to Asians or Latinos. Given the unique degree of segregation Black Americans face (e.g., residential; Williams & Collins, 2001), ethnic intragroup relations may be particularly frequent, salient or meaningful and thus have more bearing on mental health. Similarly, the enduring forms of discrimination Black Americans face (compared to Asians and Latinos; Sears & Savalei, 2006) may uniquely shape their experiences with outgroup members (e.g., greater vigilance to discrimination). Thus, the ISAH model may capture the psychological experiences of Black Americans better than those of Asians or Latinos. However, there is also evidence that the processes outlined in the ISAH model may function similarly across minority groups. For example, research shows that discrimination negatively impacts not only Blacks' but also Asians' and Latinos' psychological health (e.g., Moradi & Risco, 2006). Moreover, an extensive meta-analysis found that ethnicity did not moderate the relationship between perceived discrimination and mental health (e.g., among Asians, Blacks, Hispanics, Native Americans; Pascoe & Smart Richman, 2009). Additionally, experimental data show that highly identified Blacks, Asians and Latinos are all more likely to perceive discrimination than those less identified with their ethnic group (Operario & Fiske, 2001). These findings suggest that

processes outlined in the ISAH model may represent ‘core’ psychological processes—those that operate similarly across minority groups. The current research will empirically assess whether predictions outlined in the ISAH model generalize beyond Blacks to Asians and Latinos.

### **Overview of the ISAH Model**

The intragroup status and health (ISAH) model suggests that feeling valued in one’s ethnic minority group can be a double-edged sword—associated with benefits, but also indirect costs for mental health (Figure 1). Costs arise because minorities who feel valued in their ethnic group are more likely to see their ethnicity as central to their self-concept, which leads to more frequent perceptions/experiences of discrimination in daily life. Perceived discrimination in turn negatively affects mental health.

While previous research has focused on the benefits of intragroup status, the ISAH model suggests there may also be costs to feeling valued, particularly for targets of discrimination. Thus, the ISAH model represents an integrative framework for explaining how minorities’ experiences with ingroup members can influence the ‘lens’ through which they view intergroup experiences. It provides a novel perspective on the multiple ways through which intragroup relations shape minorities’ mental health.

### **Current Research**

Two large-scale field studies examined how Blacks’, Asians’, and Latinos’ perceptions of being valued within their ethnic group shape mental health in both positive and negative ways. Study 1 sampled students from a public university. Study 2 sampled adults recruited from the general U.S. population. These field data capture individuals’ real-world, lived experiences among ethnic ingroup and outgroup members and enable us to assess how perceptions of being valued predict the levels of anxiety, distress and depression individuals experience in their

everyday life. The validity of the ISAH model was tested using structural equation modeling.

To more thoroughly evaluate the unique contributions of the ISAH model, key alternative theoretical models were tested. The first alternative model was derived from the rejection-identification model (RIM), which makes competing predictions about how intragroup relations shape minorities' experiences with discrimination (e.g., Postmes & Branscombe, 2002). Both ISAH and RIM suggest that perceived discrimination negatively impacts health and well-being, but RIM also suggests that experiencing discrimination strengthens minorities' identification with their ethnic group, which in turn positively shapes psychological health. Thus, according to RIM, the negative effects of discrimination are offset by its indirect positive effects on ethnic identity. By comparison, the ISAH model suggests that identification *increases* experiences with discrimination and has no direct influence on mental health. In extensions of RIM, it has also been suggested that positive intragroup relations indirectly promote well-being through ethnic identity (Postmes & Branscombe, 2002). Therefore, an alternative rejection-identification model was designed to test these competing predictions (Figure 2A).

A second alternative model tested the role of resilience, which reflects individuals' capacity to buffer the adverse effects of stressful experiences through adaptive response (Luthar, Cicchetti, & Becker, 2000). Resilience has been used as a framework for explaining how the strength of minorities' ethnic identity can buffer the adverse effects of discrimination on psychological health (Sellers, Caldwell, Schmeelk-Cone & Zimmerman, 2003). Ethnic identity may buffer these effects because highly identified minorities maintain a larger repertoire of coping strategies (Sellers et al., 2003) or perceive greater access to ingroup social support (Haslam, O'Brien, Jetten, Vormedal & Penna, 2005). Consistent with the resilience framework, Sellers and colleagues (2003) found that ethnic identity-centrality not only leads to more

frequent perceptions of discrimination but also attenuates the relationship between discrimination and psychological health. To examine this alternative resilience-based perspective, we added an identity-by-discrimination interaction term to the ISAH model (see Figure 2B – top interaction term). This tested whether the negative effects of discrimination on mental health were buffered by the strength of individuals' ethnic identity. This alternative model is referred to as the identity-resilience model.

A third alternative model was also motivated by a resilience framework. This model tested whether feeling valued in one's ethnic group buffered the negative effects of discrimination on health. Amidst experiences of discrimination, which convey devaluation among outgroup members, feeling valued among ethnic ingroup members may serve as an alternative point of reference for evaluating self-worth (Crocker & Major, 1989). Rather than gauging one's self-worth based on the devaluation expressed by outgroup members, one may turn their focus toward their ethnic ingroup. This shift in referents may reduce the adverse psychological impact of discrimination. To examine this possibility, we added an intragroup status-by-discrimination interaction term to the ISAH model (Figure 2B – bottom interaction term). This tested whether the negative effects of discrimination on mental health varied as a function of minorities' perceived status in their ethnic group. This alternative model is referred to as the ingroup comparisons model, reflecting the potential buffering effect that occurs when shifting one's referent toward ingroup comparisons and away from outgroup comparisons.

Lastly, with the ISAH model predicting benefits *and* costs to feeling valued among ingroup members, an important question arises: Overall, is feeling valued more helpful or harmful to one's mental health? In the current research, we address this question by examining the total effect of intragroup status on mental health in the ISAH model, which reflects the

positive and negative effects of intragroup status together. If the total effect is positive then the benefits of feeling valued empirically ‘outweigh’ the costs.

### **Study 1 Method**

#### **Participants**

Participants were 581 students from the University of California, Los Angeles (59 Black/African American, 203 Asian/Asian American, 319 Latino(a)/Hispanic; 73% female,  $M_{age} = 20$ ). The smaller number of Blacks/African Americans is proportional to their representation at the university. Recruitment e-mails were sent from the registrar’s office to a random sample of U.S.-born students aged 18+, self-identified as either Asian/Asian American, Black/African American, or Latino(a)/Hispanic. We limited our sample to U.S.-born minorities because reactions to and experiences with discrimination are meaningfully different for foreign-born minorities (Perez, Fortuna & Alegrõa, 2008).

#### **Procedure**

Participants completed an online survey described as being about experiences with social groups and well-being. To recruit a more diverse and representative sample, we did not describe the study as being about discrimination nor mention any selection criteria. Individuals first completed an eligibility questionnaire; those who qualified for the study were invited to participate. Participants were entered into a \$100 lottery.

#### **Measures**

***Ethnic Intragroup Status.*** Four items measured individuals’ perceptions of their status within their ethnic group. Items began with the stem, “When I am around people of my own racial/ethnic group, I generally feel that they...”: “hold me in high regard,” “look up to me,” “see me as a leader in my racial/ethnic group,” “see me as a role model for others in my racial/ethnic

group.” Items were rated on a 7-point scale (1 *strongly disagree* – 7 *strongly agree*) and were reliable ( $\alpha \geq .92$  for each ethnic group).<sup>1</sup>

***Ethnic Identity-Centrality.*** Three items measured ethnic identity-centrality (Leach et al., 2008). Participants’ race/ethnicity was piped in to the text of each item (Asian/Asian American, Black/African American, Latino(a)/Hispanic; e.g., “The fact that I am [ ] is an important part of how I see myself,”). Items were rated on a 7-point scale (1 *strongly disagree* – 7 *strongly agree*) and were reliable ( $\alpha \geq .82$  for each ethnic group).<sup>1</sup>

***Perceived Discrimination.*** Five items measured the frequency of experiencing racial/ethnic discrimination (see Postmes & Branscombe, 2002). This scale was selected because of its applicability to members of different ethnic groups (i.e., because the specific nature and content of discrimination can vary widely for members of different ethnic groups). Items began with the stem, “In the past year, how often have you felt that...” (e.g., “you were being discriminated against because of your race/ethnicity?,” “you were being treated according to racial/ethnic stereotypes?”). These items likely capture the sum of minorities’ discrimination experiences including blatant and subtle forms. Items were rated on a 5-point scale (1 *never* – 5 *very often*) and were reliable ( $\alpha \geq .90$  for each ethnic group).<sup>1</sup>

***Trait-Anxiety.*** Six items from the State-Trait Anxiety Inventory-Trait scale measured general perceptions of anxiety (Spielberger, 1983). Participants indicated how often they would describe themselves in each of several ways (e.g., “I worry too much over something that doesn’t really matter,” “I feel pleasant;” reverse scored). Items were measured on a 5-point scale (1 *never* – 5 *very often*) and were reliable ( $\alpha \geq .81$  for each ethnic group).

***Psychological Distress.*** Six items from the Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983) measured individuals’ general appraisals of stress (e.g., “In the past four

weeks, how often have you felt nervous and ‘stressed?’”). Items were measured on a 5-point scale (1 *never* – 5 *very often*) and were reliable ( $\alpha \geq .78$  for each ethnic group).

***Depressive Symptoms.*** Depressive symptoms were measured using the ten-item Boston Form of the Center for Epidemiological Studies Depression symptoms index (CES-D; Kohout, Berkman, Evans, Cornoni-Huntley, 1993). Participants indicated how often they felt the following ways over the past week (e.g., “I felt depressed,” “I enjoyed life;” reverse scored). Items were measured on a 4-point scale (0 *never/rarely* – 3 *very often*) and were reliable ( $\alpha \geq .76$  for each ethnic group).

## **Results**

Hypotheses were tested using structural equation modeling (SEM) in EQS Version 6.2 (Bentler, 2006). Latent factors were constructed to estimate ethnic intragroup status, ethnic identity-centrality, perceived discrimination (using the aforementioned items as indicators) and mental health (using composites of the three aforementioned measures as indicators; this enabled unbiased estimates of structural parameters without specifying an overly-complex measurement model). Data were analyzed using robust maximum likelihood estimation (Satorra & Bentler, 1990).<sup>2</sup> Model fit was assessed using the comparative fit index (CFI; values  $\geq 0.95$  indicating good fit) and the root-mean-square error of approximation (RMSEA; values  $\leq 0.06$  with confidence intervals upper-bounded at  $\leq 0.08$  indicating good fit; Browne & Cudeck, 1993; Hu & Bentler, 1999). The conventional chi-square goodness-of-fit index is also reported, but with large sample sizes it is difficult to yield non-significant chi-square values even when the model fits well (Bentler, 2006). Summary statistics and bivariate correlations are presented in Table 1.

### **Testing for Ethnic Group Differences**

To determine whether the ISAH model fit equally well for each ethnic group, we ran

multiple groups analyses, which essentially test whether ethnicity is a moderator of the hypothesized model. It simultaneously analyzes the data from each ethnic group separately and determines whether a single model can reproduce the sample covariance matrices for each within sampling accuracy. Parameter constraints are added to further test assumptions that the psychological processes examined in the model operate similarly across groups (Bentler, 2006). To provide a highly conservative test of these assumptions we added constraints to all free parameters in the model. Only item error variances were free to vary. In so doing, we tested: (a) whether variables used in this model conceptually reflected the same underlying constructs for each ethnic group, and (b) whether each construct was related to the others in the model in the same way for each ethnic group.

Results of the multiple groups analyses indicated that the hypothesized model fit similarly across all ethnic groups, Satorra-Bentler  $\chi^2$  (286, N = 581) = 436.9,  $p < .001$ , CFI = 0.97, RMSEA = .05 (CI: .04 - .06). We tested the model with fewer restrictions and model fit did not significantly change (e.g.,  $\Delta$  CFI < .01). We also ran tests of invariance for each constrained path in the model. Each path was indeed statistically invariant across ethnic groups. Taken together, this indicated that the variables used in this model conceptually reflected the same underlying constructs and each construct was related to the others in the same way for each ethnic group. Therefore, subsequent analyses were conducted with data collapsed across groups. For ease of interpretation, model fit estimations by ethnic group are provided in Table 2.

### **Testing the ISAH Model**

To test the ISAH model, we specified a model in which ethnic intragroup status predicted mental health directly (benefits path) and indirectly through identity-centrality and perceived discrimination (costs path; Figure 1). As expected, the ISAH model fit very well,  $\chi^2$  (86, N =



581) = 258.7,  $p < .001$ , CFI = 0.97, RMSEA = .06 (CI: .05 - .07), overall  $R^2_{\text{mental health}} = .24$ . We also examined the model's path coefficients (Figure 3). As predicted, ethnic intragroup status was directly associated with greater mental health ( $\beta = .33, p < .001$ ). Additionally, as predicted, ethnic intragroup status was positively associated with identity-centrality ( $\beta = .27, p < .001$ ), indicating that minorities with higher perceived status in their ethnic group viewed their ethnicity as more central to their self-concept. Stronger identity-centrality was associated with more frequent experiences of discrimination ( $\beta = .27, p < .001$ ), and in turn lower levels of mental health ( $\beta = -.38, p < .001$ ). Thus, all paths were significant and consistent with predictions. To assess whether the benefits of feeling valued outweighed the indirect psychological health costs, we examined the total effect of intragroup status on mental health, which was positive ( $\beta = 0.31, p < .001$ ), indicating that feeling valued was overall more helpful than harmful to minorities' mental health.

Additionally, we confirmed that no alternative structural models empirically fit the data better, nor that a more parsimonious version of the hypothesized model approximated the data equally well. We did this by conducting a Wald test beginning with a fully saturated structural model. This procedure examines the strength of pathways between each and every factor and determines which set of pathways should be kept and which should be removed to optimally fit the data. Results showed that all structural paths in the hypothesized model should be kept, while all structural paths *not* included should be removed.

### **Alternative Theoretical Models**

*Rejection-identification, identity-resilience and ingroup comparisons models.* To further assess the validity of the ISAH model, we tested three alternative theoretical models (Figure 2). The first reflected predictions derived from the rejection-identification model (RIM;

Postmes & Branscombe, 2002). Two others reflected predictions from a resilience framework (e.g., Sellers et al., 2003). These resilience-based models predicted that the adverse effects of discrimination on health could be buffered, either by the strength of minorities' ethnic identity (identity-resilience model) or through perceptions of being valued in their ethnic group (ingroup comparisons model). In each of these models, an interaction term was added to test these buffering effects (identity-by-discrimination, ingroup status-by-discrimination, respectively). Each interaction term was modeled as a latent factor using an unconstrained approach with three indicator variables, each representing cross-product terms created from mean centered main effect variable indicators using a matched pairs strategy (Marsh, Wen & Hau, 2004).

All alternative models were first subjected to multiple groups analyses following the same protocols described earlier. Results indicated that each alternative model fit similarly across groups. Subsequent analyses were therefore conducted with data collapsed across groups. Overall, the fit of RIM was reasonable but appeared to be worse than that of the ISAH model, Satorra-Bentler  $\chi^2$  (86, N = 581) = 307.7,  $p < .001$ , CFI = 0.96, RMSEA = .07 (CI: .06 - .08). Additionally, compared to the ISAH model, RIM seemed to account for less variance on mental health,  $R^2_{\text{mental health}} = .14$  (this value is nearly half that of the ISAH model's). This suggested that RIM was a weaker model for predicting minorities' mental health overall, compared to the ISAH model (in terms of anxiety, depressive symptoms and psychological distress). Similarly, the fit of the two alternative (more complex) resilience models appeared to be no better than that of the ISAH model: identity-resilience model, Satorra-Bentler  $\chi^2$  (130, N = 581) = 290.0,  $p < .001$ , CFI = 0.97, RMSEA = .04 (CI: .04 - .05); ingroup comparisons model, Satorra-Bentler  $\chi^2$  (130, N = 581) = 269.6,  $p < .001$ , CFI = 0.97, RMSEA = .04 (CI: .04 - .05). Most importantly, the interaction terms in both resilience models did not significantly predict mental health (identity-

centrality interaction term:  $\beta = .07, p = .10$ ; intragroup status interaction term:  $\beta = .04, p = .48$ ). These findings indicated that the relationship between discrimination and mental health did not vary as a function of the strength of individuals' ethnic identity, nor as a function of their perceived status in their ethnic group.

### Discussion

Study 1 results provided support for the ISAH model. Minorities with higher perceived status in their ethnic group reported less anxiety, distress and fewer depressive symptoms. However, they also reported greater ethnic identity-centrality, which was associated with more frequent experiences of discrimination and, in turn, reduced mental health. Results of Study 1 also revealed that the ISAH model fit well not only among Blacks but also Asians and Latinos. Alternative theoretical and empirical models were evaluated and the ISAH model appeared to consistently surface as the best fitting and most parsimonious model.

Although Study 1 provided initial support for the ISAH model, it had some limitations. Consistent with the university population sampled, the number of Blacks was small compared to Asians and Latinos. To be more confident that the psychological processes outlined in the ISAH model operate similarly across ethnic groups, we wanted to rule out the possibility that group differences exist but our ability to detect them was limited by a small sample of Black individuals. Another limitation comes from sampling students from a liberal university. Minority students, compared to minority adults in non-university contexts, more strongly identify with their ethnic group and more firmly oppose prejudiced attitudes (Henry, 2008). This suggests that our student sample may attach greater meaning to ethnic group feedback and be more likely to detect and respond to prejudice expressions than a general adult sample. Therefore, the psychological processes outlined in the ISAH may not be as apparent in a more general adult

sample (because, e.g., less meaning is attached to ethnic identity, vigilance to discrimination is lower). For these reasons it is prudent to evaluate the ISAH model using data from a general adult sample. In Study 2, we address Study 1 limitations by sampling relatively equal numbers of Black, Asian, and Latino adults from different U.S. communities.

## **Study 2 Method**

### **Participants & Procedure**

Participants were 467 U.S.-born ethnic minority adults (171 Black/African American, 144 Asian/Asian American, 152 Latino(a)/Hispanic; 56% female,  $M_{\text{age}} = 30$ ) recruited through Amazon Mechanical Turk. Individuals were asked to complete an online study about their experiences with social groups and their well-being in exchange for a small remuneration. As in Study 1, recruitment advertisements did not describe the study as being about discrimination nor mention any selection criteria. Individuals completed a brief eligibility questionnaire; those who qualified for the study proceeded to the main survey.

### **Measures**

Because the user platform in Study 2 (Amazon mTurk) generally requires more brevity, we developed a condensed version of the Study 1 survey. Ethnic intragroup status, identity-centrality, trait-anxiety and psychological distress were measured using Study 1 items (all  $\alpha \geq .85$ ). Perceived discrimination was measured with a single item capturing the most essential and ubiquitous feature of discrimination: “In the past year, how often have you been treated unfairly because of your race/ethnicity?” (Landrine & Klonoff, 1996). It was measured on a 5-point scale (1 *never* – 5 *very often*). The CES-D was not included.

## **Results and Discussion**

Our hypotheses were again tested using EQS Version 6.2. Latent factors were constructed

in the same fashion as in Study 1. Data were analyzed using robust maximum likelihood estimation.<sup>2</sup> Summary statistics and bivariate correlations are presented in Table 3. Notably, the frequency of perceived discrimination, strength of ethnic identity and level of intragroup status were all higher in our student sample (Study 1) compared to this general adult sample (all differed at  $p < .001$ ). This is consistent with our suggestion that students attach greater meaning to ethnic group feedback and are more likely to detect prejudice than adults.

As in Study 1, we first ran a conservative multiple groups analysis and results indicated the ISAH model fit equally well for each ethnic group, Satorra-Bentler  $\chi^2$  (122,  $N = 467$ ) = 146.3,  $p = .07$ , CFI = 0.99, RMSEA = .04 (CI: .00 - .06). We also tested the model with fewer restrictions and fit did not significantly change (e.g.,  $\Delta$  CFI < .01). We also examined univariate tests of invariance for each constrained path in the model. Of the 26 tests, one indicated slight lack of invariance.<sup>3</sup> Together, these results suggested that variables used in this model conceptually reflected the same underlying constructs and each construct was generally related to the others in the same way for each ethnic group. Subsequent analyses were therefore run with data collapsed across groups. For ease of interpretation, model fit estimations by ethnic group are provided in Table 4.

### Testing the ISAH Model

As expected, the hypothesized model fit the data very well, Satorra-Bentler  $\chi^2$  (32,  $N = 467$ ) = 56.1,  $p = 0.005$ , CFI = 0.99, RMSEA = .04 (CI: .02 - .06),  $R^2_{\text{mental health}} = .28$ . Examining path coefficients, all were significant and in the hypothesized direction (Figure 4). We also found the total effect of intragroup status on mental health was positive ( $\beta = 0.46$ ,  $p < .001$ ) indicating that feeling valued was overall more helpful than harmful to minorities' mental health.

We also confirmed that no alternative structural models better approximated the data, nor

that a more parsimonious version of the hypothesized model approximated the data equally well. In Wald tests beginning with a fully saturated structural model, <sup>4</sup> results showed that all hypothesized paths should be kept, and all paths not included in the ISAH model should be removed.

### **Alternative Theoretical Models**

*Rejection-identification, identity-resilience and ingroup comparisons models.* As in Study 1, we tested three alternative theoretical models reflecting predictions from the rejection-identification model (RIM) and resilience framework (Figure 2). Each alternative model was subjected to multiple groups analyses following protocols described earlier. Results indicated that each model fit similarly for each ethnic group. Subsequent analyses were conducted with data collapsed across groups.

For RIM, the overall fit was reasonable but appeared to be worse than that of the ISAH model, Satorra-Bentler  $\chi^2$  (32, N = 467) = 125.1,  $p < .001$ , CFI = 0.97, RMSEA = .08 (CI: .07 - .09). Compared to the ISAH model, RIM also seemed to account for less variance on mental health,  $R^2_{\text{mental health}} = .11$  (this value is less than half that of the ISAH model's), suggesting that it was a weaker explanatory model overall for predicting minorities' mental health. Similarly, the fit of the (more complex) resilience models was no better than that of the ISAH model and, most importantly, the resilience models' interaction terms were not associated with mental health (identity-centrality interaction term,  $\beta = .02$ ,  $p = .69$ ; intragroup status interaction term,  $\beta = .02$ ,  $p = .65$ ). This indicated that the relationship between discrimination and mental health did not vary as a function of the strength of individuals' ethnic identity, nor as a function of perceived status in their ethnic group.

Consistent with Study 1, Study 2 provided support for the ISAH model. Among Blacks,

Asians and Latinos, feeling highly valued in one's ethnic group had direct benefits but indirect costs for mental health. By sampling an adult population recruited from multiple U.S. communities with balanced subsamples, Study 2 provided greater confidence that the psychological processes outlined in the ISAH model operate similarly across ethnic groups and, moreover, are not limited to the unique experiences of college students from a liberal university context.

### **General Discussion**

Given the projected growth of minorities in the United States (U.S. Census, 2012), the persistent health disparities between ethnic groups (Keppel, 2007) and the associated economic costs (LaVeist, Gaskin & Richard, 2009), it is more critical than ever to understand the psychological forces shaping minorities' mental health. In previous efforts, the importance of intragroup relations has frequently been overshadowed by a focus on intergroup relations (i.e., with discrimination). The ISAH model, by comparison, provides an integrative framework for systematically examining both the influence of minorities' inter- and intragroup experiences on health. Moreover, it sheds light on how minorities' intragroup experiences shape their health not just directly but also indirectly, by influencing the framing or 'lens' around certain negative intergroup experiences (e.g., by influencing appraisals of racial/ethnic discrimination). Thus, the current research provides empirical support for a novel framework that explains the multiple ways through which intragroup relations shape minorities' mental health. Moreover, we find support for this framework across the three largest U.S. minority groups—Blacks, Asians, Latinos.

### **Theoretical Contributions**

The ISAH model calls into question the tacit assumption that feeling valued among

ingroup members is solely beneficial. Although research has focused on its benefits (e.g., for self-esteem, collective identification, coping with discrimination; Crocker & Major, 1989; Postmes & Branscombe, 2002; Tyler et al., 1996), the current findings suggest that feeling highly valued has indirect health costs that can arise in intergroup contexts. Evidence of these costs emerge when theory on intragroup processes is expanded to explain how in-group experiences frame minorities' out-group experiences. Specifically, we found that feeling valued in one's ethnic group was associated with a stronger ethnic identity-centrality, which was linked to more frequent experiences/perceptions of discrimination that in turn predicted poorer mental health. To our knowledge, the current research is the first to explicate and test the mechanisms that explain this counter-intuitive, negative relationship between intragroup status and mental health.

The current research tested several alternative theoretical perspectives, which either directly challenged the relationships outlined in the ISAH model or challenged the model's basic premise (i.e., that there are benefits and costs to feeling valued—costs that are not easily buffered). One alternative model was derived from the rejection-identification model (RIM; Postmes & Branscombe, 2002). We found modest support for RIM but it appeared to be weaker than that of the ISAH model. Moreover, in both studies RIM appeared to account for less of the total variance on mental health (i.e., RIM had smaller  $R^2$  values on mental health, around half the magnitude of those for the ISAH model), suggesting that it was a weaker model overall for explaining minorities' mental health (in terms of anxiety, depressive symptoms and psychological distress). Notably, some of the differences in empirical support for RIM and the ISAH model may underscore that the two contain similar but meaningfully distinct constructs. For example, with regard to ethnic identity, RIM focuses on individuals' affective feelings toward their ethnic group while the ISAH model examines its cognitive centrality to the self-



concept. Though it is common for researchers to conceive of ethnic identity as a unidimensional construct, evidence suggests it has multiple dimensions (Leach et al., 2008). The current results suggest that these dimensions may also have distinct downstream implications (e.g., for mental health, discrimination experiences). Future studies should consider the unique implications of these dimensions (among other constructs with potentially important distinctions; e.g., intragroup status vs. general sense of belonging; Huo et al., 2010) when examining the effects of ethnic intragroup relations on discrimination and health.

Two other alternative models were derived from a resilience framework. One model tested whether the strength of ethnic identity buffered the adverse effects of discrimination (Sellers et al., 2003). We did not find support for this idea. While some research has found evidence of this buffering effect, other studies have not (Sellers & Shelton, 2003; Yoo & Lee, 2005). One possible explanation for this discrepancy is that constructs *related to* ethnic identity- centrality buffer the adverse effects of discrimination, but identity-centrality itself does not. For example, research shows that minorities' who believe outgroup members view their ethnic group poorly (low ethnic public regard) are able to buffer some of the adverse effects of discrimination (Sellers & Shelton, 2003). Public regard also tends to co-vary with ethnic identity-centrality (Sellers et al., 2003). Thus, an apparent buffering effect of identity-centrality may be in part because it co-varies with other more relevant factors (e.g., public regard). It will be important in future research to discern exactly which components of identity or other related factors influence the discrimination-health link. A second resilience model tested whether feeling valued in one's ethnic minority group buffered the adverse effects of discrimination. We also did not find support for this idea. This suggests that feeling valued in an intragroup context does not supplant the devaluation one feels in an intergroup context. Both may independently contribute to mental

health.

### **Generalizability of the ISAH Model across Ethnic Minority Groups**

Previous research on ethnic intergroup relations has focused on the experiences of Black individuals. Therefore, it has been unclear how processes integrated into the ISAH model may operate among other ethnic groups, including Asians and Latinos. Given differences in the treatment of Blacks versus Asians and Latinos in the U.S. (Sears & Savalei, 2006), it would not be surprising to find group differences in the functioning of the ISAH model. However, the current research found consistent evidence that the processes in the ISAH model operate similarly across groups. This suggests the ISAH model captures core psychological processes—those that operate similarly across groups. This is consistent with other lines of work, including research showing that ethnic discrimination impacts Blacks', Asians' and Latinos' mental health similarly (Pascoe & Smart Richman, 2009) and that ethnic identity-centrality increases perceptions of discrimination similarly among members of different ethnic minority groups (Operario & Fiske, 2001). To further assess the ISAH model's generalizability, it will be important to test whether it captures the experiences of individuals in other stigmatized groups (e.g., religious and sexual minority groups). If so, the ISAH model may serve as a reliable foundation for explaining how identity and status concerns shape mental health among members of stigmatized groups.

### **Implications for Minority Mental Health**

Finding both benefits and costs associated with perceived intragroup status gives rise to the question of whether feeling valued is, overall, more helpful or harmful to one's mental health. We assessed this question in each study by examining the total effect of intragroup status on mental health (see Results). In both studies we found that the total effect was positive, which

suggests that the benefits of feeling valued empirically ‘outweighed’ the costs. Thus, overall, feeling valued appears to be more helpful than harmful to minorities’ mental health.

Nevertheless, while the benefits of feeling valued (direct effects) clearly outweighed the costs (indirect effects), those costs were significant (in both studies,  $p < .001$ ) and so the adverse effects associated with feeling valued should also be considered as we look for the most effective ways to maintain and promote minority mental health. We suggest a two-pronged approach that includes promoting feelings of value in one’s ethnic minority group coupled with targeted strategies for attenuating the negative consequences that arise from feeling valued.

When considering how to attenuate the negative consequences of feeling valued, note that perceived discrimination has the most proximal negative influence on mental health in the ISAH model. If this negative relationship could be attenuated it would help mitigate the adverse consequences of feeling valued. Although the negative effects of discrimination on health are well documented, and the current findings suggest neither strongly identifying with one’s ethnic group nor feeling valued among ingroup members buffers its adverse effects, there are other ways that the effects of discrimination may be tempered. For example, certain forms of social support (e.g., from ethnic ingroup members; Cohen & Willis, 1985; Haslam et al., 2005) or adopting certain coping strategies may buffer these negative effects (Noh & Kaspar, 2003). Thus, if individuals feel admired in their ethnic minority group and, at the same time, maintain or seek out relevant social support or practice effective coping strategies, they may reap the mental health benefits of feeling valued while attenuating the downstream costs.

It is important to highlight that the mental health indicators used in the current research (e.g., depressive symptoms, psychological distress) have been linked to a host of physical health outcomes including diabetes and increased blood pressure, along with increased risk of mortality

(e.g., all cause, cardiovascular; Adler et al., 2000; Moussavi et al., 2007; Russ et al., 2012).

Findings from the current studies may therefore have translatable implications for minorities' *physical* health. The mental health indicators used in this research also represent an advance in intragroup processes research, which has focused primarily on self-esteem (e.g., Postmes & Branscombe, 2002; Tyler et al., 1996). The current findings demonstrate that intragroup relations not only shape individuals' perceived self-worth (a more controllable aspect of one's well-being; Ratner, Halim & Amodio, 2013), but also less controllable aspects of psychological health— aspects that are linked to important physical health outcomes.

### **Limitations and Future Directions**

Data used in the current research enabled us to examine Asian, Black and Latino individuals' real life experiences with ingroup and outgroup members, and test a conceptual model that integrates theory on inter- and intragroup processes including factors that are not easily manipulated in experimental settings (e.g., ethnic identity). However, while these datasets are rich and psychologically meaningful, their cross-sectional nature limits strong causal claims. While the proposed causal direction of pathways in the ISAH model are supported by experimental and/or longitudinal data (including research that supports hypothesized causal directions and refutes possible reverse-causal directions; e.g., Sellers & Shelton, 2003; Simon & Stürmer, 2003; Masuoka, 2006; Seaton, Yip, Morgan-Lopez & Sellers, 2012), it will be important to test the directionality of these pathways altogether in future research, and specifically across multiple ethnic groups, which has not been done in previous research. Currently, we have a longitudinal study underway that will enable better assessments of causality within the ISAH model while still drawing from individuals' real-world experiences across multiple ethnic groups (Begeny & Huo, 2016).

Recruitment of individuals from ethnic minority groups presents challenges. Despite these challenges we were able to draw reasonably sized samples from three different ethnic minority groups (ranging from 59 to 319 individuals per ethnic group, per study). Nonetheless, by some standards the sample sizes may have been smaller than ideal. While the precise number that is judged to be adequate for testing structural equation models varies (see Muthén & Muthén, 2002; Wolf, Harrington, Clark & Miller, 2013), there were several indicators that our findings were reliable. For example, we replicated our findings across two independent samples (an important strategy for establishing reliability when sample size may be sub-optimal; Schreiber, Nora, Stage, Barlow & King, 2006). We also found support for the ISAH model using statistics that provide appropriate, if not conservative, tests of model fit when one is concerned about relatively small sample sizes (i.e, CFI is good estimator with small samples, RMSEA is a relatively conservative estimator as it tends to overreject good-fitting models with small samples; Chen, Curran, Bollen, Kirby & Paxton, 2008; Hu & Bentler, 1999). We hope that our findings across the two studies will motivate larger scale studies in the future, perhaps with representative community samples and *a priori* estimates of adequate sample sizes using up to date methods (see Muthén & Muthén, 2002), ultimately seeking to replicate the current findings and further unpack the important dynamics between relations with ethnic ingroup members and mental health documented in the current work.

The ISAH model suggests feeling valued in one's ethnic minority group has direct benefits for mental health. Future research should consider mechanisms that might explain this relationship. We suggest that individuals' sense of personal control in life may play an important role (see Greenaway et al., 2015 for a similar argument). Studies have found that individuals with higher perceived status in groups report greater control and fewer constraints on their lives

(Lachman & Weaver, 1998; Kraus, Piff & Keltner, 2009) and this sense of control predicts greater mental and physical health (Johnson & Krueger, 2005; Folkman, Lazarus, Gruen & DeLongis, 1986; Lachman & Weaver, 1998). From a biopsychosocial perspective, this mediated process occurs because lower perceived status comes with reduced access to resources, which contributes to feeling one cannot adequately control their life. A lack of perceived control in turn promotes psychological stress, which sets off physiological processes that increase susceptibility to physical and mental disease (McEwen, 1998). Notably, positive group identity (e.g., pride, felt solidarity with the group) may also help explain the intragroup status-health link, because it enables one to harness the support of ingroup members and more effectively cope with stressors (Haslam et al., 2005). It will be important in future research to examine whether perceived control in life, perceived access to resources (including access to group-oriented support) and/or positive group identification (e.g., pride, solidarity) help explain how intragroup status shapes mental health.

The current research focused on a particular aspect of minorities' experiences with ethnic ingroup members—being looked up to, highly valued and admired (intragroup status). This focus reflected an intention to examine intragroup dynamics that may yield positive *and* negative implications for mental health. However, there are other dynamics that may be useful to explore for generally expanding our understanding of minority mental health. Specifically, minorities' perceptions of acceptance or general belonging in the group may also shape psychological health (Baumeister & Leary, 1995) but without the same costs associated with feeling highly valued (i.e., because it does not shape identity or experiences with discrimination in the same way; see Branscombe et al., 1999). Future research should also consider whether promoting feelings of belonging can minimize the indirect costs of intragroup status while still enabling its benefits

(e.g., greater mental health overall, maintaining vigilance to extant forms of discrimination).

### **Conclusions**

The intragroup status and health (ISAH) model explains how feeling highly valued among members of one's own ethnic group shapes mental health both directly and indirectly. Among Blacks, Asians, and Latinos we found converging evidence that being valued and looked up to can be a double-edged sword, having both positive and negative implications for mental health. More generally, this research demonstrates how important intragroup relations are for understanding minorities' intergroup experiences (e.g., with discrimination). Thus, to better understand minorities' health and mitigate the adverse effects of discrimination, we need to consider the multifaceted role of ethnic intragroup relations.

## Notes

1. High average inter-item correlations (Chronbach's alpha values) are not a prerequisite to the items' use in SEM. They are provided here only for ease of interpretation.
2. There was substantial variance around each factor but with multivariate non-normality.
3. One of the 26 paths was not invariant when comparing Black and Latino participants ( $p = .03$ ) suggesting the path between perceived discrimination and mental health may be similar but not of the same magnitude on average for these two groups ( $B = -.21, -.19, -.41$  for Asians, Blacks and Latinos, respectively).
4. Perceived discrimination was not a latent factor but all parameters between it and the latent factors were estimated during Wald tests.



## References

- Adler, N. E., Epel, E., Castellazzo, G., & Ickovics, J. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy White women. *Health Psychology, 19*(6), 586-592. doi:10.1037/0278-6133.19.6.586
- Anderson, C., Kraus, M. W., Galinsky, A. D., & Keltner, D. (2012). The local ladder effect: Social status and subjective well-being. *Psychological Science, 23*(7), 764-771. doi:10.1177/0956797611434537
- Begeny, C. T., & Huo, Y. J. (2016). *The psychological benefits and costs of feeling valued in one's ethnic minority group: Longitudinal evidence from Asian, Black and Latino adults in the U.S.* Manuscript in preparation.
- Bentler, P. M. (2006). *EQS 6 structural equations program manual*. Encino, CA: Multivariate Software.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology, 77*(1), 135-149. doi:10.1037/0022-3514.77.1.135
- Browne, M. W. & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. Bollen & J. Long (Eds.), *Testing structural equation models*. Newbury Park, CA: Sage.
- Chen, F., Curran, P. J., Bollen, K. A., Kirby, J., & Paxton, P. (2008). An empirical evaluation of the use of fixed cutoff points in RMSEA test statistic in structural equation models. *Sociological Methods & Research, 36*(4), 462-494. doi:10.1177/0049124108314720
- Chou, C-P., & Bentler, P. M. (2002). Model modification in in structural equation modeling by

- imposing constraints. *Computational Statistics & Data Analysis*, 41(2), 271-287.  
doi:10.1016/s0167-9473(02)00097-x
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. doi:10.1037/0033-2909.98.2.310
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385-396. doi:10.2307/2136404
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96(4), 608-630. doi:10.1037/0033-295x.96.4.608
- Crocker, J., Voelkl, K., Testa, M., & Major, B. (1991). Social stigma: The affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology*, 60(2), 218-228. doi:10.1037/0022-3514.60.2.218
- Cross, W. E. (1991). *Shades of black: Diversity in African American identity*. Philadelphia, PA: Temple University Press.
- Ellemers, N., Doosje, B., & Spears, R. (2004). Sources of respect: The effects of being liked by ingroups and outgroups. *European Journal of Social Psychology*, 34(2), 155-172.  
doi:10.1002/ejsp.196
- Emler, N., & Hopkins, N. (1990). Reputation, social identity, and the self. In D. Abrams & M. A. Hogg (Eds), *Social identity theory: Constructive and critical advances* (pp. 113-130). New York: Springer-Verlag.
- Fielding, K. S., & Hogg, M. A. (1997). Social identity, self-categorization, and leadership: A field study of small interactive groups. *Group Dynamics: Theory, Research and Practice*, 1(1), 39-51. doi: 10.1037/1089-2699.1.1.39
- Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health

- status, and psychological symptoms. *Journal of Personality and Social Psychology*, *50*(3), 571–579. doi:10.1037/0022-3514.50.3.571
- Greenaway, K. H., Haslam, S. A., Cruwys, T., Branscombe, N. R., Ysseldyk, R., & Heldreth, C. (2015). From “we” to “me”: Group identification enhances perceived personal control with consequences for health and well-being. *Journal of Personality and Social Psychology*, *109*(1), 53–74. doi:10.1037/pspi0000019
- Haslam, S. A., O’Brien, A., Jetten, J., Vormedal, K., & Penna, S. (2005). Taking the strain: Social identity, social support, and the experience of stress. *British Journal of Social Psychology*, *44*(3), 355–370. doi:10.1348/014466605x37468
- Henry, P. J. (2008). College sophomores in the laboratory redux: Influences of a narrow data base on social psychology's view of the nature of prejudice. *Psychological Inquiry*, *19*(2), 49-71. doi: 10.1080/10478400802049936
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review*, *5*(3), 184–200. doi: 10.1207/s15327957pspr0503\_1
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55. doi:10.1080/10705519909540118
- Huo, Y. J., Binning, K. R., & Begeny, C. T. (2015). Promoting social engagement and well-being in diverse groups: The role of respect. In S. Otten, I. van der Zee, & M. Brewer (Eds), *Toward inclusive organizations: Determinants of successful diversity management at work* (pp. 49-66). New York, NY: Psychology Press.
- Huo, Y. J., Binning, K. R., & Molina, L. E. (2010). Testing an integrative model of respect: Implications for social engagement and well-being. *Personality and Social Psychology*

*Bulletin*, 36(2), 200-212. doi:10.1177/0146167209356787

Johnson, W., & Krueger, R. F. (2005). Higher perceived life control decreases genetic variance in physical health: Evidence from a national twin study. *Journal of Personality and Social Psychology*, 88(1), 165–173. doi:10.1037/0022-3514.88.1.165.

Kaiser, C. R., & Pratt-Hyatt, J. S. (2009). Distributing prejudice unequally: Do Whites direct their prejudice toward strongly identified minorities? *Journal of Personality and Social Psychology*, 96(2), 432-445. doi:10.1037/a0012877

Keppel, K. G. (2007). Ten largest racial and ethnic health disparities in the United States based on Healthy People 2010 objectives. *American Journal of Epidemiology*, 166(1), 97-103. doi:10.1093/aje/kwm044

Kohout, F. J., Berkman, L. F., Evans, D. A., & Cornoni-Huntley, J. (1993). Two shorter forms of the CES-D depression symptoms index. *Journal of Aging and Health*, 5(2), 179-193. doi:10.1177/089826439300500202

Kraus, M. W., Piff, P. K., & Keltner, D. (2009). Social class, sense of control, and social explanation. *Journal of Personality and Social Psychology*, 97(6), 992–1004. doi:10.1037/a0016357.

Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74(3), 763–773. doi:10.1037/0022-3514.74.3.763.

Landrine, H., & Klonoff, E. A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology*, 22(2), 144–168. doi:10.1177/00957984960222002

LaVeist, T. A., Gaskin, D. & Richard, P. (2011). Estimating the economic burden of racial health

- inequalities in the United States. *International Journal of Health Services* 41(2), 231-238.  
doi:10.2190/hs.41.2.c
- Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B.,  
Ouwerkerk, J. W., & Spears, R. (2008). Group-level self-definition and self-investment:  
A hierarchical (multicomponent) model of in-group identification. *Journal of Personality  
and Social Psychology*, 95(1), 144-165. doi:10.1037/0022-3514.95.1.144
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical  
evaluation and guidelines for future work. *Child Development*, 71(3), 543–562.  
doi:10.1111/1467-8624.00164
- Marsh, H. W., Wen, Z., & Hau, K.-T. (2004). Structural equation models of latent interactions:  
Evaluation of alternative estimation strategies and indicator construction. *Psychological  
Methods*, 9(3), 275–300. doi:10.1037/1082-989x.9.3.275.
- Masuoka, N. (2006). Together they become one: Examining the predictors of panethnic group  
consciousness among Asian Americans and Latinos. *Social Science Quarterly*, 87(1),  
993–1011. doi:10.1111/j.1540-6237.2006.00412.x.
- McEwen, B. S. (1998). Stress, adaptation, and disease: Allostasis and allostatic load. *Annals of  
the New York Academy of Sciences*, 840(1), 33-44. doi:10.1111/j.1749-  
6632.1998.tb09546.x
- Moradi, B. & Risco, C. (2006). Perceived discrimination experiences and mental health of  
Latino/a American persons. *Journal of Counseling Psychology*, 53(4), 411–421.
- Moussavi, S., Chatterji, S., Verdes, E., Tandon, A., Patel, V., & Ustun, B. (2007). Depression,  
chronic disease, and decrements in health: Results from the World Health Surveys. *The  
Lancet*, 370(9590), 851–858. doi:10.1037/0022-0167.53.4.411

- Muthén, L. K., & Muthén, B. O. (2002). How to use a Monte Carlo Study to decide on sample size and determine power. *Structural Equation Modeling*, 9(4), 599–620.  
doi:10.1207/s15328007sem0904\_8
- Noh, S., & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American Journal of Public Health*, 93(2), 232–238. doi:10.2105/ajph.93.2.232
- Operario, D., & Fiske, S. (2001). Ethnic identity moderates perceptions of prejudice: Judgments of personal versus group discrimination and subtle versus blatant bias. *Personality and Social Psychology Bulletin*, 27(5), 550–561. doi:10.1177/0146167201275004
- Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, 135(4), 531–554. doi: 10.1037/a0016059
- Perez, D. J., Fortuna, L., & Alegrõa, M. (2008). Prevalence and correlates of everyday discrimination among U.S. Latinos. *Journal of Community Psychology*, 36(4), 421–433. doi:10.1002/jcop.20221
- Postmes, T. & Branscombe, N.R. (2002). Influence of long-term racial environmental composition on subjective well-being in African Americans. *Journal of Personality and Social Psychology*, 83(3), 735–751. doi:10.1037/0022-3514.83.3.735
- Ratner, K. G., Halim, M. L., & Amodio, D. M. (2013). Perceived stigmatization, ingroup pride, and immune and endocrine activity evidence from a community sample of Black and Latina Women. *Social Psychological and Personality Science*, 4(1), 82–91. doi:10.1177/1948550612443715
- Romero, A. J., & Roberts, R. E. (1998). Perception of discrimination and ethnocultural variables in a diverse group of adolescents. *Journal of Adolescence*, 21(6), 641–656.

doi:10.1006/jado.1998.0185.

Russ, T. C., Stamatakis, E., Hamer, M., Starr, J. M., Kivimaki, M., & Batty, G. D. (2012).

Association between psychological distress and mortality: Individual participant pooled analysis of 10 prospective cohort studies. *BMJ*, *345*, e4933. doi:10.1136/bmj.e4933

Satorra, A., & Bentler, P. M. (1990). Model conditions for asymptotic robustness in the analysis of linear relations. *Computational Statistics & Data Analysis*, *10*(3), 235-249.

doi:10.1016/0167-9473(90)90004-2

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, *99*(6), 323–338. doi:10.3200/joer.99.6.323-338

Sears, D. O., & Savalei, V. (2006). The political color line in America: Many “peoples of color” or Black exceptionalism? *Political Psychology*, *27*(6), 895-924. doi:10.1111/j.1467-9221.2006.00542.x

Seaton, E. K., Yip, T., Morgan-Lopez, A., & Sellers, R. M. (2012). Racial discrimination and racial socialization as predictors of African American adolescents’ racial identity development using latent transition analysis. *Developmental Psychology*, *48*(2), 448-458. doi:10.1037/a0025328

Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior*, *44*(3), 302. doi:10.2307/1519781

Sellers, R. M. & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology*, *84*(5), 1079-1092.

doi:10.1037/0022-3514.84.5.1079

Simon, B., & Stürmer, S. (2003). Respect for group members: Intragroup determinants of collective identification and group-serving behavior. *Personality and Social Psychology Bulletin, 29*(2), 183–193. doi:10.1177/0146167202239043

Smith, E. R., Coats, S., & Walling, D. (1999). Overlapping mental representations of self, in-group, and partner: Further response time evidence and a connectionist model. *Personality and Social Psychology Bulletin, 25*(7), 873-882.

doi:10.1177/0146167299025007009

Smith, H. J., Tyler, T. R., & Huo, Y. J. (2003). Interpersonal treatment, social identity and organizational behavior. In S. A. Haslam, D. van Knippenberg, M. J. Platow, & N. Ellemers (Eds.), *Social identity at work: Developing theory for organizational practice* (pp. 155-171). Philadelphia, PA: Psychology Press.

Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory STAI (Form Y)*. Palo Alto, CA: Mind Garden.

Tyler, T. R., & Blader, S. L. (2002). Autonomous vs. comparative status: Must we be better than others to feel good about ourselves?. *Organizational Behavior and Human Decision Processes, 89*(1), 813-838. doi:10.1016/s0749-5978(02)00031-6

Tyler, T. R. & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review, 7*(4), 349-361. doi:10.1207/s15327957pspr0704\_07

Tyler, T. R., DeGoeij, P., & Smith, H. J. (1996). Understanding why the justice of group procedures matters. *Journal of Personality and Social Psychology, 70*(5), 913-930. doi: 10.1037/0022-3514.70.5.913



- U.S. Census Bureau, Population Division (2012, December). *Table 4. Projections of the Population by Sex, Race, and Hispanic Origin for the United States: 2015 to 2060 (NP2012-T4)*. Retrieved from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>.
- van Knippenberg, B., & van Knippenberg, D. (2005). Leader self-sacrifice and leadership effectiveness: The moderating role of leader prototypicality. *The Journal of Applied Psychology, 90*(1), 25–37. doi: 10.1037/0021-9010.90.1.25
- Williams, D. R., & Collins, C. (2001). Racial residential segregation: A fundamental cause of racial disparities in health. *Public Health Reports, 116*(5), 404–416. doi:10.1016/s0033-3549(04)50068-7
- Williams, D., Neighbors, H.W., Jackson, J.S. (2003). Racial/ethnic discrimination and health: Findings from community studies. *American Journal of Public Health, 93*(2), 200–208. doi:10.2105/ajph.93.2.200
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement, 73*(6), 913–934. doi:10.1177/0013164413495237
- Wolff, L. S., Subramanian, S. V., Acevedo-Garcia, D., Weber, D., & Kawachi, I. (2010). Compared to whom? Subjective social status, self-rated health, and referent group sensitivity in a diverse US sample. *Social Science & Medicine, 70*(12), 2019–2028. doi: 10.1016/j.socscimed.2010.02.033
- Yoo, H. C., & Lee, R. M. (2005). Ethnic Identity and approach-type coping as moderators of the racial discrimination/well-being relation in Asian Americans. *Journal of Counseling*

*Psychology*, 52(4), 497–506. doi:10.1037/0022-0167.52.4.497

## Appendix

Table 1

*Study 1 means, standard deviations and bivariate correlations among variables*

Variable	Mean	SD	1	2	3	4	5	6
1. Ethnic Intragroup Status	4.77 <sup>a</sup>	1.36	-----					
2. Ethnic Identity-Centrality	5.43 <sup>a</sup>	1.29	.30***	-----				
3. Perceived Discrimination	2.65 <sup>b</sup>	1.04	.15***	.31***	-----			
4. Anxiety	2.58 <sup>b</sup>	0.66	-.27***	-.07	.23***	-----		
5. Psychological Distress	2.84 <sup>b</sup>	0.73	-.18***	.02	.27***	.68***	-----	
6. Depressive Symptoms	0.62 <sup>c</sup>	0.46	-.20***	.02	.21***	.68***	.68***	-----

*Note.* <sup>a</sup> 1-7 scale, <sup>b</sup> 1-5 scale; <sup>c</sup> 0-3 scale. \*\*\*  $p < .001$

Table 2

*Results of Study 1 model fit estimations by ethnic group for the intragroup status and health model*

	<i>n</i>	S-B $\chi^2$	df	<i>p</i>	CFI	RMSEA	CI
All Ethnic Minorities	581	258.7	86	<.001	.97	.06	.05-.07
Black/African American	59	88.4	86	.41	.99	.02	.00-.08
Asian/Asian American	203	153.1	86	<.001	.96	.06	.05-.08
Latino(a)/Hispanic	319	155.8	86	<.001	.98	.05	.04-.06

*Note.* Satorra-Bentler chi-square (S-B  $\chi^2$ ), Comparative fit index (CFI), Root-mean-square error of approximation (RMSEA) and its confidence interval (CI).

Table 3

*Study 2 means, standard deviations and bivariate correlations among variables*

Variable	Mean	SD	1	2	3	4	5
1. Ethnic Intragroup Status	4.33 <sup>a</sup>	1.52	-----				
2. Ethnic Identity-Centrality	5.03 <sup>a</sup>	1.51	.43***	-----			
3. Perceived Discrimination	2.24 <sup>b</sup>	1.12	.18***	.22***	-----		
4. Anxiety	2.62 <sup>b</sup>	0.84	-.41***	-.18**	.16**	-----	
5. Psychological Distress	2.84 <sup>b</sup>	0.87	-.34***	-.13***	.20***	.80***	-----

*Note.* <sup>a</sup> 1-7 scale, <sup>b</sup> 1-5 scale. \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 4

*Results of Study 2 model fit estimations by ethnic group for the intragroup status and health model*

	<i>n</i>	S-B $\chi^2$	df	<i>p</i>	CFI	RMSEA	CI
All Ethnic Minorities	467	56.1	32	.005	.99	.04	.02-.06
Black/African American	171	43.6	32	.08	.99	.05	.00-.08
Asian/Asian American	144	35.9	32	.29	.99	.03	.00-.07
Latino(a)/Hispanic	152	38.0	32	.25	.99	.04	.00-.07

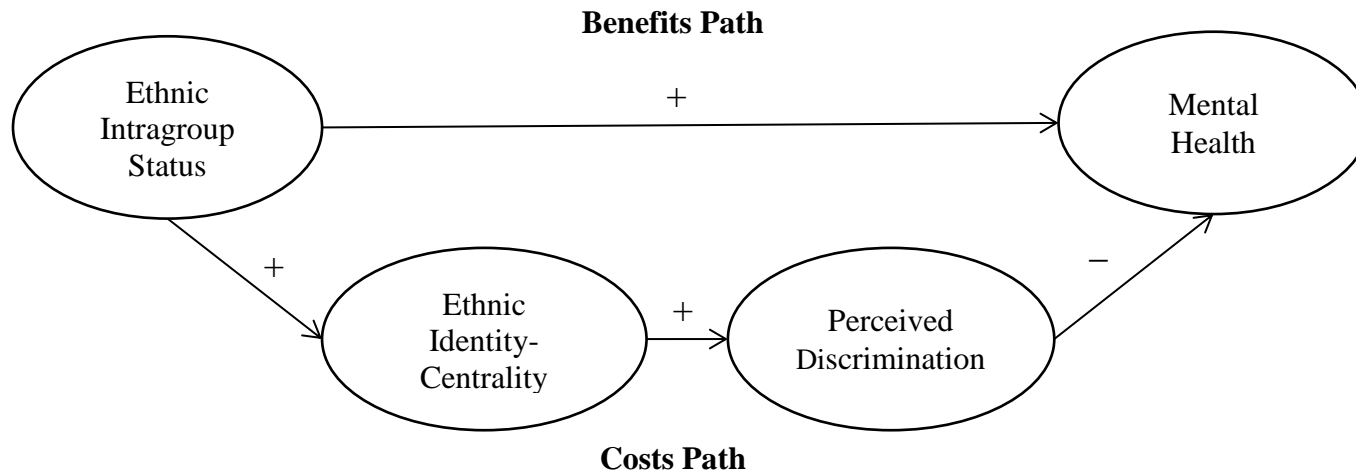
*Note.* Satorra-Bentler chi-square (S-B  $\chi^2$ ), Comparative fit index (CFI), Root-mean-square error of approximation (RMSEA) and its confidence interval (CI).

Table 5

*Study 1 and 2 parameters for the measurement portion of the intragroup status and health model*

Latent Factor	Study	Measurement Parameters			
Ethnic Intragroup Status	1	.94 (1.33, .05)	.86 (1.33, .05)	.89 (1.33, .05)	.88 (1.24, .05)
	2	.92 (1.48, .05)	.88 (1.49, .05)	.90 (1.51, .06)	.90 (1.42, .06)
Ethnic Identity-Centrality	1	.64 (1.00, .06)	.89 (1.15, .06)	.93 (1.27, .05)	
	2	.75 (1.12, .06)	.93 (1.37, .06)	.93 (1.35, .06)	
Perceived Discrimination	1	.76 (0.89, .04)	.75 (0.86, .04)	.87 (1.04, .04)	.89 (1.00, .04) .92 (1.03, .03)
	2	---			
Mental Health	1	-.83 (-.49, .02)	-.82 (-.52, .02)	-.82 (-.34, .02)	
	2	-.86 (-.67, .03)	-.93 (-.64, .03)		

*Note.* Standardized parameter coefficients (unstandardized coefficients, standard errors) for each manifest indicator, as predicted by its respective latent factor. All parameters significant at  $p < .001$ .



*Figure 1.* A schematic representation of the intragroup status and health model. The benefits path (top path) and costs path (bottom path) reflect the direct psychological health benefits and indirect psychological health costs of ethnic intragroup status, respectively.



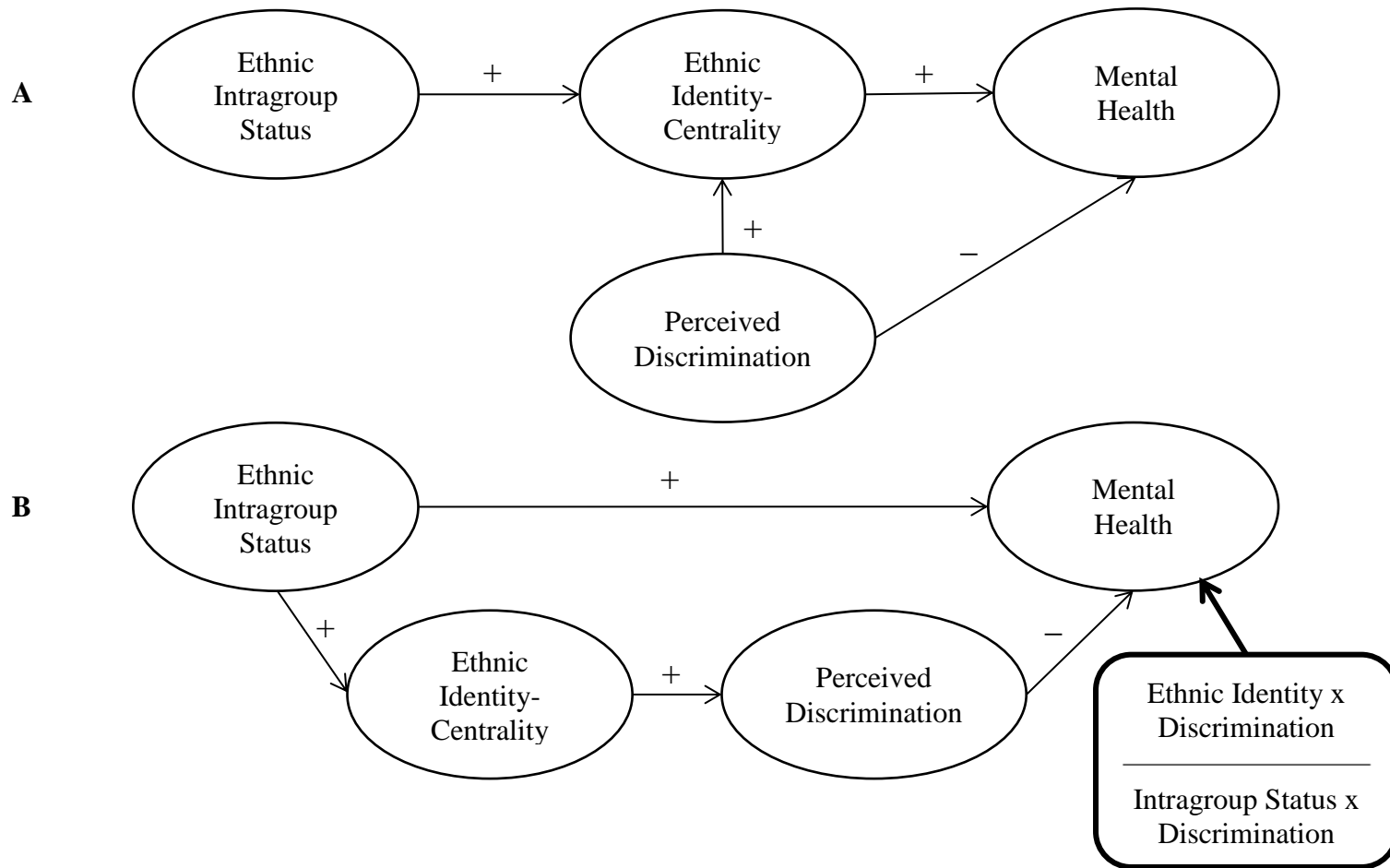


Figure 2. Alternative models reflecting predictions from the rejection-identification model (A) and a resilience framework (B). In one test of the resilience model, an identity-by-discrimination interaction term was entered to test whether ethnic identity buffered the negative effects of discrimination. In another, an intragroup status-by-discrimination interaction term was entered to test whether intragroup status buffered the negative effects of discrimination (in bold).

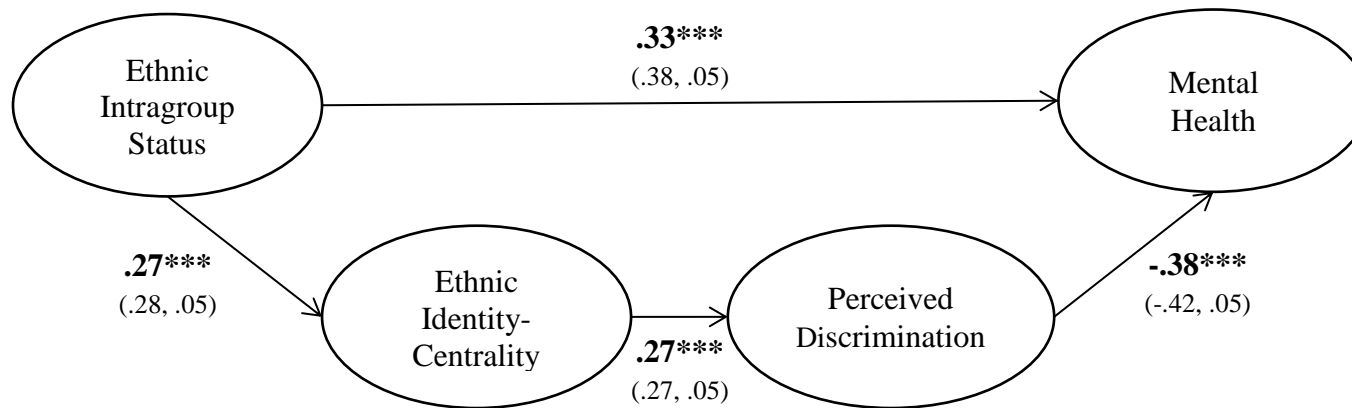


Figure 3. Results of Study 1. The intragroup status and health model with standardized path coefficients (unstandardized coefficients, standard errors). Path coefficients for the measurement model are in Table 5.  $*** p < .001$ .

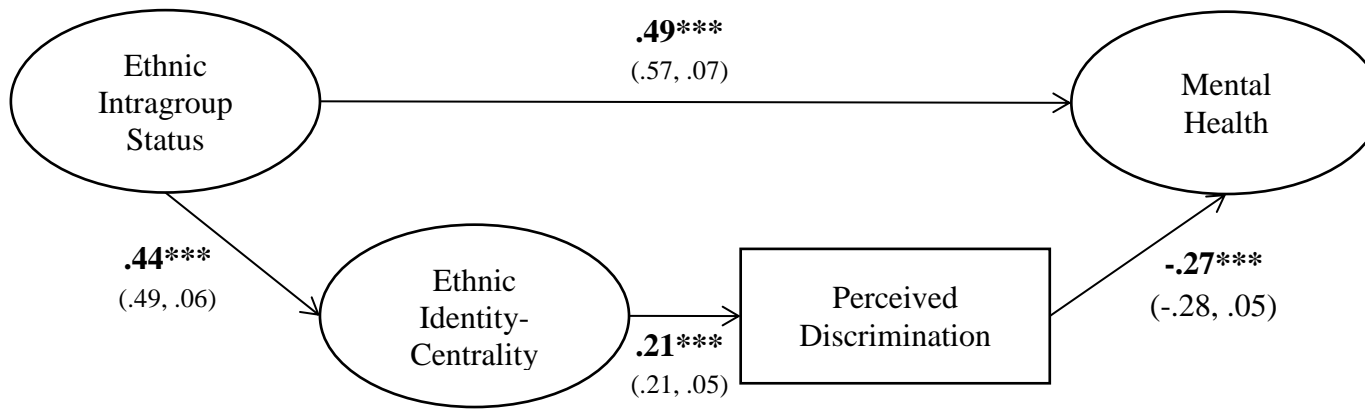


Figure 4. Results of Study 2. The intragroup status and health model with standardized path coefficients (unstandardized coefficients, standard errors). Path coefficients for the measurement model are in Table 5.  $*** p < .001$ .