

When Identity Hurts: How Positive Intragroup Experiences  
Yield Negative Mental Health Implications for Ethnic and Sexual Minorities

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## Abstract

Two studies (longitudinal,  $N=510$ ; cross-sectional;  $N=249$ ) explain how feeling valued in one's ethnic/sexual minority group has benefits for mental health but also certain costs through the way it shapes minorities' identity. Drawing from the intragroup status and health model (ISAH) we posit that when individuals feel valued in their minority group it bolsters group identification; with greater identity-centrality individuals tend to view daily social interactions through the 'lens' of their minority group and ultimately perceive more discrimination. Discrimination, in turn, negatively shapes health. Thus, feeling valued in one's minority group has benefits for health but also indirect costs, perhaps counterintuitively by strengthening minority group identity. Both studies supported these predictions. Study 2 also supported an adapted ISAH model, for use in the context of *concealable* stigmatized identities (sexual minorities). Overall, the ISAH model explains why feeling valued and having strong social identities are not always beneficial, yielding certain costs for stigmatized individuals' health.

*Keywords:* identity; respect; status; health; well-being; discrimination; stress; stigma; race; ethnicity, sexual minority

When Identity Hurts: How Positive Intragroup Experiences

Yield Negative Mental Health Implications for Ethnic and Sexual Minorities

A growing body of research indicates that social identities are good for health. They not only promote health but protect it from adverse social stressors and unhealthy mental states (for reviews, see Greenaway, Cruwys, Haslam & Jetten, 2016; Haslam, Jetten, Postmes & Haslam, 2009; Jetten, Haslam & Haslam, 2012). But are strong social identities *always* good for health?

In the current research we consider contexts in which social identities may have adverse health implications. Specifically, we consider whether in the context of stigmatized groups—those that are targets of discrimination—feeling valued in one's own stigmatized group can have benefits for health but also strengthen one's group identity in ways that yield downstream health *costs*. Thus, we examine whether feeling valued and highly identifying in one's minority group have, perhaps counterintuitively, adverse health implications (we also examine whether these adverse health effects empirically outweigh the aforementioned *benefits* of feeling valued). We examine these possibilities among ethnic and sexual minorities. Given that members of these stigmatized groups face pervasive social stressors (discrimination) and disproportionate rates of illness (Meyer, 2003; Williams & Mohammed, 2009), it is important in this context to develop a clear understanding of how feeling valued and highly identifying with one's minority group shape health, including their potential for benefits *and* costs.

We draw from a recently developed framework, the intragroup status and health model (ISAH; Begeny & Huo, 2016), to explain how feeling valued and highly identifying with one's ethnic or sexual minority group can adversely shape health. This occurs because when individuals feel valued among members of their own minority group it strengthens their group identity in ways that heighten vigilance to expressions of group-based discrimination

(by shaping the cognitive ‘lens’ through which they view and interpret experiences among outgroup members). Heightened perceptions of discrimination ultimately create psychological distress and take a toll on individuals’ mental health. Thus, the ISAH model explains how feeling valued among minority ingroup members can have benefits for health, but also strengthen minorities’ identity in ways that yield negative indirect health effects (Figure 1A; note that in this model one can also examine the relative empirical weight of the benefits and costs of feeling valued).

An earlier test of the ISAH model offered initial support for its predictions, but only in one type of group (ethnic minorities) using cross-sectional data (Begeny & Huo, 2016). By comparison, in the current research we test this framework using more rigorous methodologies and in new, theoretically meaningful contexts. First, we test the model longitudinally among ethnic minorities followed over a one-year span (Study 1). This allows us to assess the ISAH model’s predictions across time. Second, we test the model among sexual minorities, whose identity is generally more *concealable* than ethnic minorities’ (Study 2). The concealable nature of sexual minorities’ identity can create a fundamentally distinct experience around ingroup and outgroup members, as sexual minorities consider how, when and with whom to conceal or disclose their stigmatized identity (with implications for how they may be treated). To account for this distinct type of experience, we draw from previous work on concealable stigmatized identities and outline a novel perspective that explicates how the ISAH model can be utilized in this context. Thus, overall, the current research has potential to expand our understanding of how positive intragroup experiences and strong social identities can negatively shape minorities’ health.

## Overview of the Intragroup Status and Health (ISAH) Model

The ISAH model (Begeny & Huo, 2016) explains how feeling valued and admired within one's stigmatized minority group can have benefits for mental health, but also indirect costs (Figure 1A).

### The Benefits of Intragroup Status

The *Benefits Path* of the ISAH model highlights the positive health effects of feeling valued in one's minority group. It is motivated by theory suggesting that within self-relevant groups individuals attend to signals coming from other ingroup members (authority figures, peers) that convey information about their standing within the group (Tyler & Blader, 2003; Tyler, DeGoey, & Smith, 1996). Individuals' perceived standing in the group is referred to here as *intragroup status* (akin to intragroup standing, status-based respect; see Huo, Binning & Molina, 2010), which reflects perceptions of being looked up to, highly regarded or admired by other ingroup members. It reflects individuals' subjective 'position' in the group based on the degree to which their personal qualities and characteristics are collectively valued by the group (Emler & Hopkins, 1990).

Previous research indicates that higher perceived intragroup status is beneficial for individuals' health. For example, it predicts lower levels of anxiety and depressive symptoms (Begeny & Huo, 2016; Huo, Binning & Begeny, 2015) and has positive health effects across time (e.g., Singh-Manoux, Marmot & Adler, 2005). Thus, higher perceived status among ingroup members should have benefits for minorities' mental health.

### The Costs of Intragroup Status

The *Costs Path* of the ISAH model highlights the negative implications of intragroup status for mental health. It describes how perceptions of intragroup status frame minorities' experiences with outgroup members and yield negative downstream health consequences—in particular, by shaping their identity in ways that increase perceptions of discrimination.

***Intragroup status and identity.*** Research suggests that feeling valued in a group promotes greater psychological attachment to that group, such that individuals with higher perceived status are more likely to view it as central to their self-concept (i.e., stronger identity-centrality; e.g., Simon & Stürmer, 2003; Tyler & Blader, 2002). This may be in part because individuals with higher intragroup 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, 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 identity-centrality has certain positive implications (e.g., increased group-oriented behavior; Tyler & Blader, 2003) it can have negative implications for minorities' health. This is because when minorities' identity is central to their self-concept it more readily becomes the cognitive schema or 'lens' through which they view and interpret their social experiences (Smith, Coats, & Walling, 1999). As a result, highly identified minorities are more vigilant to expressions of group-based discrimination and ultimately perceive it more often (Crocker, Voelkl, Testa, & Major, 1991; Operario & Fiske, 2001; Sellers & Shelton, 2003).<sup>1</sup> These perceptions of discrimination in turn negatively affect health (Meyer, 2003; Pascoe & Smart Richman, 2009). Together, this suggests stronger identity-centrality can increase perceptions of discrimination in daily life and, consequently, adversely shape mental health (intragroup status → identity-centrality → perceived discrimination → lower mental health; the *Costs Path*).

## **Evaluating the ISAH Model among Individuals with Visible versus Concealable Stigmatized Identities**

The ISAH model was initially developed in the context of ethnic minority groups, which represents a more visible type of stigmatized identity. Therefore, it is unclear whether it is useful for understanding the experiences and health of individuals in other types of minority groups, particularly those with more *concealable* stigmatized identities. This includes sexual minorities. As described below, the concealable nature of sexual minorities' identity may produce a distinct type of experience around ingroup and outgroup members, which may be critical to understanding how certain processes within the ISAH model function.

*The concealable nature of sexual identities.* By virtue of its concealable nature, sexual minorities have to frequently consider whether, how, when and with whom to conceal or disclose their sexual identity (Beals, Peplau & Gable, 2009; Pachankis, 2007). Similarly, they may often consider who 'knows' or suspects something about their sexual identity even if that information has not been voluntarily shared. This means that sexual minorities may think about or be cognizant of their concealable stigmatized identity quite often (Quinn & Chaudoir, 2009). That is, it can be cognitively *salient* in a lot of situations. Most critically, this can be the case even if they do not consider their sexual identity to be *important* to who they are as individuals (i.e., to their self-concept; Quinn & Chaudoir, 2009; Quinn & Earnshaw, 2011; Quinn et al., 2014). For example, Gay men might view their sexual identity as unimportant to their self-concept and choose not to reveal it to others (a potential response to internalized negative stereotypes about homosexuality), yet in the process think about it quite often (e.g., how to conceal it). In this way, for individuals with concealable stigmatized identities the frequency with which that identity is cognitively salient (*identity-salience*) may be quite distinct from the importance placed on it (*identity-importance*; Quinn et al., 2014).

So while in ethnic minority research the salience and importance of minorities' identity are often defined as a single construct (identity-centrality; Leach et al., 2008), among sexual minorities it may be critical to distinguish between these two sub-dimensions of identity-centrality, to understand more precisely how each is involved in shaping individuals' intergroup experiences and health.

### **The Distinct Roles of Identity-Importance and -Salience within the ISAH Model**

An adapted form of the ISAH model was designed to better understand the function of these two identity dimensions in the context of concealable stigmatized identities (Figure 1B). It was tested among sexual minorities (Gay men). Below we describe the role of each dimension within the model.

*Intragroup Status* → *identity-importance*. In efforts to maintain a positive sense of self-worth individuals may strategically (though not always consciously) shift the importance they place on certain group identities in defining their overall self-concept, depending on whether those groups value them or not (Tyler & Blader, 2002, 2003). As Tyler and Blader state, individuals will “strategically draw more of their identity from group information when that information is more favorable” (2002, p. 817). This means that individuals should place greater importance on those identities for which the group values them. Therefore, individuals who feel valued in their sexual minority group should tend to place greater importance on that group identity (intragroup status → identity-importance).

*Identity-importance* → *identity-salience* → *discrimination*. The importance individuals place on a social identity can affect its tendency to become salient in everyday situations. As self-categorization theory suggests, the social identity that becomes most salient in a situation is influenced partly by its cognitive accessibility (also termed ‘perceiver readiness;’ among other situational and cognitive factors; for overviews, see Haslam, 2004; Turner, Oakes, Haslam & McGarty, 1994). The accessibility of a given identity is in part



determined by the importance placed on it (Oakes, 1987). This means that all else equal an identity that is considered important to an individual's self-concept will more readily be accessible than one that is less important. Thus, on average (across a variety of situations) the degree to which individuals' sexual identity is important to their self-concept should affect how often it becomes salient—ultimately serving as the relevant group referent or 'lens' through which they view and interpret experiences in those situations. As described earlier, this ultimately shapes perceptions of discrimination (i.e., identity-importance → identity-salience → discrimination).

In summary, sexual minorities' perceived intragroup status should influence the level of importance they place on their sexual identity, which in turn influences how often it becomes the salient social 'lens' through which experiences are interpreted. This shapes how often sexual minorities perceive discrimination, with subsequent adverse mental health effects (Figure 1B).

### **Considering an Alternative Theoretical Perspective: The Rejection-Identification Model**

Overall, the ISAH model (Figure 1A/B) proposes that feeling valued in one's minority group has benefits but also indirect costs for mental health. Costs arise through a series of identity-based processes that shape individuals' tendency to perceive discrimination.

In examining the ISAH model it is important to also consider the rejection-identification model (RIM; Branscombe, Schmitt & Harvey, 1999), which provides a distinct framework for understanding the dynamic between minorities' discrimination experiences, identity and health/well-being (also see Jones, Jetten, Haslam & Williams, 2012; Molero, Fuster, Jetten & Moriano, 2011 for a similar framework used in the context of concealable stigmatized identities). While both RIM and the ISAH model suggest perceived discrimination negatively impacts minorities' health/well-being, RIM also suggests perceiving discrimination bolsters minorities' group identity, which in turn positively shapes

health/well-being (thus, indirectly offsetting the adverse effects of discrimination). By comparison, the ISAH model suggests stronger minority identification increases perceptions of discrimination (i.e., identity *shapes* perceptions of discrimination, rather than being *shaped* by them) and has no direct influence on mental health. Considered together, these models raise two important questions: whether minorities' identity *shapes* or is *shaped* by discrimination experiences, and whether identity has any direct positive health effects. Therefore, in examining the ISAH model it is important to test: (1) whether the strength of minorities' identity predicts the frequency of their discrimination experiences (consistent with ISAH) or if discrimination experiences predict the strength of minorities' identity over time (consistent with RIM); (2) whether identity-centrality has any direct effect/relationship with mental health (consistent with RIM) or not (consistent with ISAH).

### **Current Research**

We test the ISAH model in two studies. In Study 1 we do so among ethnic minorities using longitudinal data, assessing how processes in the model function over time. In Study 2 we examine the model among sexual minorities, enabling a test of its predictive strength in the context of a more *concealable* stigmatized identity.

In both studies we also directly assess whether the strength of minorities' identity has negative indirect health effects. Additionally, we test two key predictions derived from the rejection-identification model: (1) whether discrimination experiences bolster minorities' identity over time; (2) whether identity-centrality has any direct effect/relationship with mental health.

***Weighing the benefits and costs of feeling valued.*** 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 minorities' mental health? Statistically, this question is addressed 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, the benefits of feeling valued statistically ‘outweigh’ the costs. We test this possibility in both studies.

### **Study 1: Longitudinal Examination of the ISAH model (Ethnic Minorities)**

To assess how the processes within in the ISAH model function over time, longitudinal data were collected from ethnic minorities at two time points approximately one year apart.

### **Method**

#### **Participants**

Participants were 510 U.S.-born ethnic minority students from a large public university (201 Asian/Asian American, 309 Latino(a)/Hispanic; 72% female,  $M_{age} = 20$ ). Of those who responded at Time 1 (T1), 341 participated at Time 2 (T2; 148 Asian/Asian American, 193 Latino(a)/Hispanic; 67% retention rate). Twenty-two participants were omitted from analyses because their self-identified race/ethnicity differed at T1 and T2. As a result, they received fundamentally different questions at each time point. Data were also collected from Black/African American students but were excluded because sample size was inadequate for planned analyses (e.g., multiple groups analyses; at T2,  $n = 28$ ). For evidence of the ISAH model’s predictive strength among Blacks/African Americans, see Begeny and Huo (2016).

#### **Procedure**

At T1, recruitment e-mails were sent by the university to a randomly generated sample of racial/ethnic minority students. To minimize certain self-selection biases, recruitment emails did not indicate the study was about discrimination nor mention any eligibility criteria (U.S.-born, age 18+, self-identified with one of the aforementioned racial/ethnic groups). Individuals first completed a brief eligibility questionnaire online;

eligible participants immediately proceeded to the study's online survey. Approximately 12 months later, eligible T1 participants were contacted via email to complete the T2 survey.

Participants were entered into cash lotteries for participating (T1: \$100 prize; T2: five prizes, \$50-\$200).

### Measures

T1/T2 measures were identical. Preceding relevant measures participants were asked to think about their self-selected racial/ethnic group.

***Ethnic Intragroup Status.*** Four items measured individuals' perceived status within their ethnic minority group (see Begeny & Huo, 2016; e.g., "Most of the time I feel that people in my racial/ethnic group...": "look up to me," "hold me in high regard," "see me as a leader in my racial/ethnic group"). Items were rated on a 7-point scale (1 *strongly disagree* – 7 *strongly agree*) and reliable ( $\alpha \geq .92$  for each ethnic group at T1 and T2).<sup>2</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 (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 reliable ( $\alpha \geq .82$  for each ethnic group at T1 and T2).<sup>2</sup>

***Perceived Discrimination.*** Four items measured the frequency of experiencing racial/ethnic discrimination (see Postmes & Branscombe, 2002; "In the past year how often have you felt that..." "you were being discriminated against because of your race/ethnicity?," "you were being treated according to racial/ethnic stereotypes?," "you were being viewed negatively because of your race/ethnicity?," "you were deprived of opportunities (that were available to others) because of your race/ethnicity?"). Items were rated on a 5-point scale (1 *never* – 5 *very often*) and reliable ( $\alpha \geq .88$  for each ethnic group at T1 and T2).<sup>2</sup>

**Mental Health (Anxiety, Psychological Distress, Depressive Symptoms).** Mental health was assessed using measures of trait-anxiety (six items; e.g., “I worry too much over something that doesn’t really matter; ” 1 *never* – 5 *very often*; Spielberger, 1983), psychological distress (six items, Perceived Stress Scale; e.g., “In the past four weeks, how often have you felt nervous and ‘stressed’?;” 1 *never* – 5 *very often*; Cohen, Kamarck & Mermelstein, 1983) and depressive symptoms (ten-item CES-D, Boston Form; Kohout, Berkman, Evans, Cornoni-Huntley, 1993). Each scale was reliable within each ethnic group at T1 and T2 ( $\alpha \geq .76$ ).

## Results

Summary statistics and bivariate correlations are in Table 1.

### Analytical Approach

**Overview.** Initial tests of the ISAH model were done using structural equation modeling (SEM; separately at T1/T2). Primary analyses tested the strength of the model across time using multilevel structural equation modeling (MSEM). This was followed by cross-lagged SEM regression analyses to further examine the robustness of the hypothesized directions of effects across time. All SEM/MSEM analyses were conducted in EQS v6.2 (Bentler, 2006).

In all SEM/MSEM analyses, latent factors were constructed to estimate ethnic intragroup status, identity-centrality and perceived discrimination using the aforementioned items as indicators and mental health using composites of anxiety, psychological distress and depressive symptoms as indicators. Data were analyzed using robust maximum likelihood estimation (Satorra & Bentler, 1990).<sup>3</sup>

## Preliminary Analyses

*Descriptive patterns of change, correlations across time.* Some constructs in the ISAH model may be relatively stable across time (e.g., identity-centrality) so it is important to examine how much change occurred among participants. While the degree of change was modest on average, 21-31% of participants showed change greater than one standard deviation between T1 and T2 (from the mean difference score; Table 2). Table 2 also illustrates how these changes were correlated (i.e., difference score correlations). All were consistent with predictions. For example, increases in intragroup status over time were associated with increases in identity-centrality. Thus, a sizable portion of participants showed change across time on each construct. Moreover, these changes were associated with changes in other constructs consistent with the ISAH model's predictions.

### *Testing the ISAH model for ethnic group differences and overall fit at T1 and T2.*

Before testing the overall fit of the ISAH model at T1/T2, we assessed whether it fit equally well for each ethnic group (running multiple groups analyses, following protocols described in Begeny & Huo, 2016). Results indicated the model fit similarly for Asians and Latinos so data were subsequently collapsed. Testing the overall fit of the ISAH model at each time point also indicated the model fit quite well (Figure 2).

## Primary Analyses: Testing the ISAH Model Across Time

*Description of MSEM analyses.* We assessed the ISAH model across time using MSEM. Because the measurement portion of the between- and within-subjects models were expected to be equally strong, we constrained factor loadings to be equal across them. Tests indicated each was indeed statistically invariant. Also to note, all ICCs were large ( $\geq .40$ ).

*Results of MSEM analyses.* As expected the ISAH model fit the data very well, in the between-subjects model (average absolute standardized covariance residual: AASCR = .04, largest standardized residual: LSR = .12, Total Effect  $\text{intragroup status} \rightarrow \text{health}$ :  $\beta = .45, p < .001$ ),

the within-subjects model (AASCR = .04, LSR = .13, Total Effect  $\text{intragroup status} \rightarrow \text{health}$ :  $\beta = .05$ ,  $p = .002$ ) and overall ( $T_{CRADF} = 212.9$ ,  $p = .003$ ,  $F_{RADF}(160, 322) = 1.60$ ,  $p < .001$ , SRMR = .05). Moreover, all paths in the between- and within-subjects models were significant. In the between-subjects model, feeling valued among ethnic ingroup members predicted greater mental health ( $\beta = .55$ ,  $p < .001$ ). Yet minorities who felt valued in their ethnic group also regarded their ethnic identity as more central to their self-concept ( $\beta = .49$ ,  $p < .001$ ), which was associated with more frequent perceptions of discrimination ( $\beta = .45$ ,  $p < .001$ ) and in turn lower levels of mental health ( $\beta = -.44$ ,  $p < .001$ ). Similarly, the within-subjects model revealed all paths were significant and consistent with predictions:  $\text{intragroup status} \rightarrow \text{mental health}$ ,  $\beta = .05$ ,  $p = .03$ ;  $\text{intragroup status} \rightarrow \text{identity-centrality}$ ,  $\beta = .09$ ,  $p < .001$ ;  $\text{identity-centrality} \rightarrow \text{perceived discrimination}$ ,  $\beta = .04$ ,  $p = .02$ ;  $\text{perceived discrimination} \rightarrow \text{mental health}$ ,  $\beta = -.26$ ,  $p < .001$ . Thus, results evinced support for the ISAH model across individuals and across time.

#### **Further Testing Directional Effects in the ISAH Model: Cross-Lagged SEM Analyses**

To complement our primary MSEM analyses we conducted follow-up cross-lagged SEM regression analyses, sequentially testing each section of the ISAH model. Cross-lagged analyses enable slightly stronger inferences about the directionality of effects, as they allow simultaneous examination of hypothesized time-dependent effects ( $X_{T1} \rightarrow Y_{T2}$ ) and their alternative, reverse directional effects ( $Y_{T1} \rightarrow X_{T2}$ ). While these cross-lagged analyses cannot test the strength of the model as a whole (using this approach would require data from at least three time points) or test indirect effects (e.g., identity on health), they serve as an important complement to MSEM by enabling stronger inferences about the direction of effects.

*Description of cross-lagged SEM analyses.* Cross-lagged SEM models were set up following a latent change regression framework (McArdle, 2009). They accounted for the extent to which each construct predicted itself across time and the correlation between



constructs at T1. They also specified a latent change factor for each construct, which represents the degree to which individuals' scores on that construct changed from T1 to T2.

Modeling these latent change factors allowed us to control for how changes in X over time (e.g., intragroup status) predicted changes in Y (e.g., identity-centrality). This parallels what was tested in our MSEM analyses, and their specification here allowed us to more precisely isolate and distinctly examine how individuals' scores on X at T1 predicted scores on Y at T2, and vice versa ( $X_{T1} \rightarrow Y_{T2}$  and  $Y_{T1} \rightarrow X_{T2}$ ). These are the essential cross-lagged parameters for assessing directionality of effects across time.

**Results of cross-lagged SEM analyses.** We tested the ISAH model in three segments: intragroup status  $\rightleftharpoons$  identity-centrality; identity-centrality  $\rightleftharpoons$  discrimination; discrimination  $\rightleftharpoons$  mental health  $\rightleftharpoons$  intragroup status. To note, consistent with results of MSEM analyses, each model showed changes in X over time (e.g., intragroup status) significantly predicted changes in Y (e.g., identity-centrality). Also in each cross-lagged model: (a) all manifest indicators were predicted by their respective latent factors (all  $p$ 's < .001), and (b) factor loadings were constrained to be equal at T1/T2 and all were statistically invariant.

Table 3 displays the cross-lagged parameters. As predicted, minorities' perceived status among ethnic ingroup members positively affected the strength of their ethnic identity over time ( $\beta = .13, p = .01$ ). There was no evidence of a reverse-directional effect. Also as predicted, the strength of minorities' identity-centrality positively affected the frequency of perceiving discrimination over time ( $\beta = .09, p = .03$ ). Notably, experiencing more frequent discrimination also predicted subsequently higher levels of ethnic identity ( $\beta = .12, p = .01$ ). Additionally, as predicted, experiences of discrimination negatively affected mental health over time ( $\beta = -.05, p = .04$ ). There was no evidence of a reverse-directional effect. Finally, as predicted, minorities' perceived status among ethnic ingroup members positively affected their mental health over time ( $\beta = .04, p = .07$ ). This last marginally significant effect is in



fact highly consistent with predictions—feeling valued among ingroup members has positive effects on mental health, but this is tempered by its indirect negative effects via identity-based processes (these positive and negative effects are embedded in this path coefficient). Notably, greater mental health also had modest positive effects on perceived intragroup status ( $\beta = .10, p = .05$ ). Thus, overall, we found support for each of the ISAH model's predicted directional effects, plus two additional effects (i.e., some bi-directionality).

### **Examining the Negative Effects of Identity on Health**

In our MSEM and preliminary SEM analyses we could directly test whether minorities' ethnic identity had negative indirect effects on health. Consistent with predictions, MSEM analyses indicated that ethnic identity-centrality had significant negative indirect health effects (between-subjects model:  $\beta = -.20, p < .001$ , within-subjects model:  $\beta = -.01, p = .002$ ). Thus, minorities who saw their ethnic identity as increasingly central to their self-concept over time had slight decreases in mental health because of how those shifts in identity influenced the frequency at which they perceived discrimination. Tests of the ISAH model at T1/T2 similarly revealed ethnic identity's negative indirect health effects (T1:  $\beta = -.10, p < .001$ , T2:  $\beta = -.10, p < .001$ ). Thus, results consistently indicated that stronger ethnic identity-centrality had negative indirect effects on minorities' mental health.

### **Testing Alternative Predictions, derived from the Rejection-Identification Model**

We examined two key predictions from RIM: (1) whether discrimination experiences prompt minorities to identify more with their ethnic group (discrimination  $\rightarrow$  identity-centrality); (2) whether the strength of minorities' identity has direct, positive effects on mental health (identity-centrality  $\rightarrow$  mental health). Consistent with the first prediction, as reported above, cross-lagged analyses indicated that while the strength of minorities' ethnic identity positively affected the frequency of perceiving discrimination (consistent with ISAH), perceptions of discrimination also positively affected the strength of their ethnic

identity (consistent with RIM).

To test the second alternative prediction we ran an additional set of cross-lagged SEM analyses: identity-centrality  $\leftrightarrow$  health. Contrary to RIM's prediction, the strength of minorities' identity had no direct effect on mental health ( $\beta = .02, p = .44$ ); nor did mental health impact the strength of minorities' identity; ( $\beta = -.03, p = .48$ ). We similarly tested if within the ISAH model identity-centrality had any direct, positive effect/relationship with mental health (specifying a new structural parameter, identity-centrality  $\rightarrow$  mental health). For each analytical technique that could assess the full ISAH model (T1/T2 cross-sectional tests, MSEM analyses) we tested whether this parameter was significant and/or improved model fit. Contrary to RIM's prediction, identity-centrality did not predict mental health in any analyses (T1:  $\beta = .07, p = .21$ ; T2:  $\beta = -.01, p = .89$ ; MSEM between-subjects model:  $\beta = .03, p = .89$ ; MSEM within-subjects model:  $\beta = -.01, p = .59$ ), nor did the parameter improve model fit. This is also consistent with Table 1 and 2 correlations, showing no significant relationship between identity and mental health. Thus, overall we found support for one of RIM's key predictions (discrimination  $\rightarrow$  identity-centrality) but not the other (identity-centrality  $\rightarrow$  mental health).

## Discussion

Study 1 found consistent support for the ISAH model, indicating higher perceived status in one's ethnic minority group positively affects mental health, but also bolsters ethnic identity-centrality in ways that lead to more frequent perceptions of discrimination and, in turn, negatively affects mental health.

Cross-lagged analyses further supported the predicted directionality of effects within the ISAH model. There was some evidence of bi-directionality, as well: intragroup status  $\leftrightarrow$  mental health, identity-centrality  $\leftrightarrow$  discrimination. Neither of these bi-directional effects are entirely surprising. First, while there is evidence that individuals' perceived status in groups

influences health (e.g., Elovainio et al., 2011; Singh-Manoux et al., 2005) there is also some evidence for the reverse effect (Elovainio et al., 2011). Thus, feeling valued among ingroup members may promote health as hypothesized, but individuals' health may also affect the level of value they are afforded by ingroup members. For instance, when individuals are healthy they may spend more time around ingroup members and behave in more group-oriented ways, which may prompt others in the group to confer greater status on them (ultimately shaping their own perceived intragroup status).

Regarding the second bi-directional effect (identity-centrality  $\leftrightarrow$  discrimination), while previous experimental evidence indicates one's ethnic identity-centrality shapes the frequency of experiencing discrimination (as hypothesized; e.g., Operario & Fiske, 2001) it has also been suggested that discrimination experiences can prompt minorities to become more cognizant of their ethnic identity and the role it plays in their daily experiences (Cross, 1991). It has further been suggested that with an increased cognizance of their minority identity, individuals may become more vigilant to expressions of discrimination, thus creating a feedback loop between identity-centrality and discrimination (also see Sellers & Shelton, 2003). This may help explain the bidirectional effect found (identity-centrality  $\leftrightarrow$  discrimination).

Regarding the two alternative predictions derived from RIM, we found support for one but not the other. In support of RIM's prediction that minorities strengthen their group identity in response to discrimination, we found that discrimination experiences predicted stronger ethnic identity over time. Notably, this is a different explanation for the same unanticipated reverse time-dependent effect described above (discrimination  $\rightarrow$  identity-centrality). So to say, this effect may reflect an adaptive response that helps preserve minorities' health/well-being as RIM suggests, or it may indicate that discrimination prompts minorities' to be more cognizant of their ethnic identity, as Cross (1991) suggests. Contrary

to RIM's other key prediction, we did not find evidence that a strong ethnic identity had direct, positive effects on minorities' mental health (also see correlations in Tables 1 and 2).

Thus, overall, support for RIM's predictions was mixed.

Finally, it is important to highlight that our preliminary analyses revealed meaningful change in the strength of individuals' ethnic identity over time. While researchers often presume ethnic identity is stable in adults (and treat it as an individual difference variable), we found evidence of substantial change even in the span of one year. Moreover, this change was associated with meaningful shifts in the valuation individuals felt among ethnic ingroup and outgroup members. This suggests that in some contexts it may be more appropriate to treat ethnic identity as a predictor or outcome variable, as opposed to a stable moderator.

### **Study 2: Testing the ISAH Model among Individuals with a Concealable Stigmatized Identity (Sexual Minorities)**

Study 2 examines the ISAH model among sexual minorities (Gay men), enabling us to assess whether the model is also useful for understanding the experiences and health of individuals with more *concealable* stigmatized identities. Additionally, we assess whether it is critical in this context to adapt the ISAH model (distinguishing between identity-importance and -salience; see Figure 1B).

#### **Method**

##### **Participants & Procedure**

Participants were 249 self-identified Gay men recruited through Amazon Mechanical Turk ( $M_{\text{age}} = 33$ ). Individuals were asked to complete an online survey about their everyday experiences with social groups in exchange for small remuneration. To avoid certain self-selection biases, recruitment advertisements did not describe the study's eligibility criteria (self-identified Gay men, aged 18+, living in the U.S.). Over 15,000 people were screened for eligibility through a brief questionnaire; those who qualified proceeded to the main survey.

## Measures

All measures were identical to those in Study 1 (all  $\alpha \geq .84$ ; where relevant, measures were adapted to make reference to one's sexual minority group). To better explore the identity-importance/-salience distinction we added a fourth identity item: "In a lot of situations, I find myself thinking about the fact that I am Gay." It was coupled with one from the original identity measure to assess -salience ("I often think about the fact that I am Gay"). Identity-importance was assessed using the two other items from the original identity measure ("The fact that I am Gay is an important part of my identity," "Being Gay is an important part of how I see myself").

## Results

Hypotheses were again tested using EQS v6.2. In tests of the original ISAH model (Figure 1A), latent factors were specified identically to those in Study 1. In tests of the adapted ISAH model (Figure 1B), latent factors were constructed in the same fashion but with identity-importance/-salience specified as two separate factors. Data were again analyzed using robust maximum likelihood estimation.<sup>3</sup> Summary statistics and bivariate correlations are in Table 4.

### Preliminary Analyses: Support for the Identity-Importance/-Salience Distinction

Bivariate correlations offered preliminary evidence that the distinction between identity-importance and -salience was critical. For example, men who felt valued within the Gay community regarded their sexual identity as more important to their self-concept ( $\beta = .23, p < .001$ ) but it was unrelated to how often their sexual identity was salient in everyday life ( $\beta = .07, p = .29$ ). The salience of men's sexual identity predicted how often they perceived discrimination ( $\beta = .22, p < .001$ ) but the importance of their sexual identity did not ( $\beta = .09, p = .14$ ). Exploratory factor analysis further supported the identity-importance/-salience distinction (note: EFAs are empirically more conservative than CFAs, though a CFA

may be justified here; Quinn et al., 2014). Using a principal factor method and oblimin rotation (examining eigenvalues, scree plot) results indicated a two-factor solution. All items loaded onto their appropriate factors and without any substantial cross-loadings (largest cross-loading,  $\lambda = 0.04$ ; identity-importance = 63.37% of total variance; identity-salience = 19.54% of total variance;  $r = .52$ ). Overall, this suggested that for sexual minorities there is a meaningful distinction between the importance placed on their sexual identity and how often it is cognitively salient.

### Testing the Original ISAH Model

We first tested the original ISAH model, with a single identity-centrality construct (following Leach et al., 2008), which indicated a fairly strong fit and with most path coefficients significant (Figure 3). However, most critically, identity-centrality did not predict how often men in the Gay community perceived discrimination ( $\beta = 0.12, p = .10$ ). Thus, the original ISAH model was only modestly supported. Results also indicated the model's weakness was in its inability to predict the frequency at which men perceived discrimination, suggesting the process through which identity shapes sexual minorities' discrimination experiences may need to be more precisely explicated (i.e., distinguishing the roles of identity-importance and -salience).

### Testing the Adapted ISAH Model (Identity-importance $\rightarrow$ -Salience)

The adapted ISAH model, with identity-importance/-salience distinguished (Figure 1B), fit the data well, Satorra-Bentler  $\chi^2 (85) = 154.5, p < .001, CFI = .97, SRMR = .06, RMSEA = .06$  (CI: .04 - .07),  $R^2_{\text{psychological health}} = .26$ , Total Effect  $\text{intragroup status} \rightarrow \text{health}: \beta = .36, p < .001$ . While the adapted- and original ISAH models are not nested (precluding formal tests of relative fit), there was clear evidence of improved fit (e.g., greater CFI, smaller upper-bound on RMSEA, smaller  $\chi^2/\text{df}$  ratio). Moreover, compared to the original ISAH model, all structural parameters were highly significant (Figure 4) and evinced identity's negative

indirect health effects. Both identity-importance ( $\beta = -.04, p = .04$ ) and -salience ( $\beta = -.08, p = .02$ ) had significant negative indirect effects on sexual minorities' mental health.

***Testing an alternative form of the adapted ISAH model (-salience  $\rightarrow$  -importance).***

To better assess the precise theoretical roles of identity-importance/-salience within the ISAH model we not only tested the adapted ISAH model (-importance  $\rightarrow$  -salience) but also an alternative form with the roles of these two dimensions reversed (-salience  $\rightarrow$  -importance). If these dimensions play precise and specific roles within the ISAH model (i.e., they are not theoretically interchangeable) then the hypothesized form of the adapted ISAH model should fit better than this non-hypothesized alternative.

This alternative model fit reasonably well but was poorer than the hypothesized model (e.g., smaller CFI, larger SRMR, larger upper-bound on RMSEA and  $\chi^2$  value). Most critically, path coefficients revealed that individuals' perceived status in the Gay community did not predict how often their sexual identity was salient in everyday contexts ( $\beta = .08, p = .33$ ). Moreover, the general importance of their sexual identity did not predict how often they experienced discrimination ( $\beta = .11, p = .11$ ). Thus, identity-importance/-salience seem to play precise theoretical roles within the ISAH model (i.e., they are not interchangeable).

**Testing Alternative Predictions, derived from the Rejection-Identification Model**

Study 2 cross-sectional data do not enable tests of directionality between identity and discrimination as proposed by RIM versus the ISAH model (identity  $\rightleftharpoons$  discrimination), but do enable tests of whether identity is positively associated with mental health, as predicted by RIM. For tests of the original and adapted ISAH models respectively, we added identity-centrality  $\rightarrow$  mental health and -importance/-salience  $\rightarrow$  mental health parameters. Contrary to RIM's prediction, no form of identity had any direct positive association with mental health (identity-centrality:  $\beta = .09, p = .23$ ; -importance:  $\beta = .09, p = .28$ ; -salience:  $\beta = .003, p = .97$ ).



## Discussion

Study 2 supported an adapted form of the ISAH model, which explains how intragroup experiences and identity-based processes shape individuals' health in the context of *concealable* stigmatized identities. It explicates the distinct roles of identity-importance and -salience.

We also tested an alternative form of the adapted ISAH model, with the roles of identity-importance and -salience reversed. This enabled a more thorough assessment of our theoretical predictions regarding the precise roles these two dimensions play within the ISAH model. Results indicated that this alternative model lacked predictive strength. Therefore, while identity-importance and -salience may be correlated (as one would expect)<sup>4</sup> they are not theoretically interchangeable. They play distinct and specific roles in explaining how minorities' experiences with ingroup and outgroup members shape mental health.

In Study 2 we could also test one of RIM's key predictions (identity → mental health). As in Study 1, we did not find support for it. Having a strong ethnic identity had no direct positive association with mental health.

## General Discussion

The current research explains how for members of stigmatized groups—those that are targets of discrimination—feeling valued in that group has benefits for health but also bolsters group identification in ways that yield downstream health *costs*. Thus, beyond the more intuitive benefits of feeling valued in groups, the current research explains how feeling valued and highly identifying with one's minority group have certain adverse health implications as well. Specifically, results indicated that feeling valued in one's stigmatized group strengthens group identity in ways that lead to more frequent perceptions of discrimination. This in turn negatively shapes mental health. Results were supported longitudinally among ethnic minorities, and among sexual minorities. Together these studies



provide evidence of how positive intragroup experiences and strong social identities can yield adverse health effects, both among individuals with visible and concealable stigmatized identities.<sup>5</sup>

### **Theoretical Contributions**

While previous work has focused on the benefits of social identities for health (see, e.g., Jetten et al., 2012), the current research reveals that they can yield costs as well, particularly for members of stigmatized groups. This research further evinces a key mechanism by which it can occur (by heightening individuals' perceptions of group-based discrimination) and a key antecedent for understanding who within a group tends to develop a strong social identity (those who feel valued and admired in the group).

These insights are also distinct from those of most previous work on *minority* group relations (e.g., on the rejection-identification model; Branscombe et al., 1999; Postmes & Branscombe, 2002). That work has similarly focused on the benefits of identification as opposed to the costs illustrated here. Thus, overall, the current research provides a distinct and useful perspective on how identity-based processes shape stigmatized minorities' health.

***The ISAH Model among Individuals with Concealable Stigmatized Identities.*** The current research also outlines a novel form of the ISAH model (Figure 1B), developed to better understand how identity-based processes shape the health of individuals with concealable stigmatized identities (e.g., sexual minorities). The support evinced for this model suggests there is a critical distinction between the *importance* individuals place on their concealable stigmatized identity and its tendency to be cognitively *salient* in everyday situations. Thus, while in the context of more visible stigmatized identities (e.g., ethnic minorities) identity-importance and -salience may go hand-in-hand, often considered a single dimension (identity-centrality), in the context of concealable stigmatized identities these two sub-dimensions play distinct roles.

Specifically, the current research indicates that men who feel valued in the Gay community place more importance on their sexual identity (yet feeling valued does little to explain how often that identity is salient in everyday life). The level of importance placed on their sexual identity in turn influences how readily it becomes the salient social ‘lens’ through which experiences are interpreted. This ultimately prompts more frequent perceptions of group-based discrimination, with subsequent adverse mental health effects. Thus, the adapted ISAH model explicated, tested and supported in the current research provides a stronger basis than the original ISAH model for understanding identity’s adverse health implications in the context of concealable stigmatized identities.

***The ISAH Model in relation to RIM: Implications of Cognitive and Affective Identity Dimensions.*** The current research examined two key alternative predictions derived from the rejection-identification model: (1) discrimination experiences bolster the strength of minorities’ identity (identity → discrimination); (2) the strength of minorities’ identity has a direct positive effect/relationship with mental health (identity → mental health). Overall, support for RIM’s predictions was mixed. The first was supported, but with a possible alternative explanation for the effect (i.e., discrimination prompts individuals to become more cognizant of their minority identity and the role it plays in shaping their daily experiences; Cross, 1991; as opposed to it being an adaptive response that helps preserve minorities’ health/well-being). The latter of RIM’s two predictions was not supported.

Though it remains unclear, these results might suggest that RIM is not the strongest framework for understanding how certain dimensions of identity are involved in shaping minorities’ discrimination experiences and health—in particular, the *cognitive* dimensions examined in the current research (e.g., identity-centrality), which are key to ISAH model. However, RIM is likely a strong framework for explaining how other dimensions of identity are involved in minorities’ discrimination experiences and health—namely, those that are

more affective in nature (e.g., identity-satisfaction, -solidarity). In fact, previous tests of RIM have often operationalized identity with affective elements mixed in (e.g., Branscombe et al., 1999; Postmes & Branscombe, 2002; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002), which could help explain why that work has generally found positive associations between identity and health/well-being, while the current research and other work examining cognitive dimensions do not (e.g., Begeny & Huo, 2016; Sellers & Shelton, 2003; also see Leach, Mosquera, Vliek, & Hirt, 2010; Postmes & Branscombe, 2002).

Thus, overall, we posit that cognitive dimensions of identity—the focus of the ISAH model—may primarily *shape* minorities' experiences with discrimination by heightening their vigilance to expressions of it in everyday life, <sup>1</sup> ultimately yielding negative indirect health effects. By comparison, more affective identity dimensions—a focal point in RIM—may be *shaped by* discrimination experiences, strengthened as a means of leveraging greater perceived group support for instance, and in turn positively shaping health. This perspective helps reconcile the seemingly discordant predictions that ISAH and RIM make. In fact, it suggests that because these models focus on different identity dimensions (cognitive vs. affective, respectively) they may very well provide complementary and theoretically compatible perspectives, rather than competing ones. In other words, the ISAH model and RIM may capture distinct parts of a broader set of psychosocial processes involved in shaping minorities' discrimination experiences and health (e.g., explaining identity's role as an antecedent vs. consequence of discrimination).

Looking forward, to develop a more complete understanding of identity's multifaceted role in shaping minorities' discrimination experiences and health, it will be important to carefully consider its multidimensional nature. Future work should aim to bridge insights from RIM and the ISAH model, utilizing high-powered studies to parse out identity's multiple dimensions and simultaneously examining their effects (e.g., on mental health).

## **Broader Implications for Minorities' Health**

*Weighing the Benefits and Costs of Feeling Valued.* In addition to explaining identity's potential adverse health effects, the ISAH model explains how feeling valued in one's minority group can have benefits *and* costs for health. This raises the question of whether feeling valued is, overall, more helpful or harmful to minorities' mental health. We tested this question in the current research. Consistent with previous work (Begeny & Huo, 2016), we found that the benefits of feeling valued statistically outweighed the costs. Thus, overall, feeling valued is likely more helpful than harmful to minorities' mental health. Nevertheless, it is important to consider the adverse effects of feeling valued as we look for the most effective ways to maintain and promote minority mental health (for a discussion, see Begeny & Huo, 2016).

*Implications for physical health.* In the current research we used mental health indicators (e.g., depressive symptoms, psychological distress) that have been linked to a host of physical health outcomes including diabetes, increased blood pressure and increased risk of mortality (e.g., all cause, cardiovascular; Adler, Epel, Castellazzo & Ickovics, 2000; Moussavi et al., 2007; Russ et al., 2012; also see Earnshaw et al., 2015). Thus, findings from the current studies may have translatable implications for minorities' physical health.

## **Limitations and Future Directions**

The current research utilized longitudinal data to better assess the directionality of effects within the ISAH model across time. Though evidence supported each of the model's hypothesized causal effects, these data cannot truly assert causality. While we tested directional effects in ways that adhere to standards for assessing causality in longitudinal observational research (i.e., cross-lagged regression analyses) and followed additional guidelines for ensuring the reliability of these effects (e.g., using latent factors, testing for invariance of factor loadings across time points), it is impossible to provide causal claims

from observational research. Therefore, experimental studies testing processes within the ISAH model will be an important step in the future. Such studies would complement the richness of the current studies, which examine processes within the ISAH model altogether and tap into minorities' real-world experiences of valuation, discrimination and distress.

### **Conclusions**

Amidst efforts to broaden our understanding of the benefits of social identities for health, it is important to consider contexts in which social identities have costs as well. Perhaps nowhere is it more important to carefully consider this than among socially devalued, minority groups—those that already endure disproportionate rates of illness and pervasive forms of social stress. Ultimately, to ameliorate these health inequities and pervasive stressors we need to develop a comprehensive understanding of identity's multifaceted role in shaping health. The current research strives to offer a meaningful contribution to that effort. It provides a perhaps sobering but critically important framework for understanding how strong social identities can yield negative health implications.

### Notes

1. Highly identified minorities may also perceive more discrimination because of greater discrimination attributions amidst ambiguous negative treatment, or because they are *treated* more negatively by outgroup members (Kaiser & Pratt-Hyatt, 2009). Importantly, whether it be a function of heightened vigilance, attributions or differential treatment by outgroup members (or a combination of these processes), they converge on the prediction that highly identified minorities will ultimately *experience* more discrimination.
2. High average inter-item correlations are not a prerequisite to the items' use in SEM latent factor specification. They are provided here only for ease of interpretation.
3. There was substantial variance around each factor but with multivariate non-normality.
4. More precisely, Haslam (2004; building from McGarty, 1999) argues that the importance of one's identity to the self-concept shapes its likelihood of becoming salient in a given situation (as the adapted ISAH model predicts); but also, its salience in that situation makes it more likely to become salient in *future* situations (those with conditions that generally enable the fit of that self-categorization to the situation). This is because its salience in the initial situation feeds into the longer-term, enduring state of that identity as a key part of one's self-concept (becoming a 'prior condition'), which ultimately increases one's readiness to perceive situations from that same social identity 'lens' in the future. In this way, the importance of one's identity to the self-concept shapes its tendency to become salient in a situation, and its salience in that situation in turn reinforces its importance to the self-concept (for a visualization of this idea, see Haslam, 2004, Figure A1.1).
5. Notably, as in Begeny and Huo (2016; see that publication for more conceptual discussion), we also tested whether feeling valued among minority ingroup members (intragroup status) and/or the strength of minorities' identity buffered the adverse effects of discrimination on health. There were no significant buffering effects of intragroup status or

identity in either study, nor in any of the analytical frameworks (SEM, MSEM), models tested (original vs. adapted ISAH models) or conceptual approaches to defining identity (-centrality, -importance, -salience).

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INTRAGROUP STATUS, IDENTITY AND HEALTH

Table 1 *Study 1 means, standard deviations and bivariate correlations among variables at each time point*

Variable	Time 1		Time 2		(Time 1 correlations above diagonal)					
	Mean	SD	Mean	SD	1	2	3	4	5	6
1. Ethnic Intragroup Status	4.74 <sup>a</sup>	1.33	4.82	1.27	-----	.31** *	.14*	-.37** *	-.15**	-.14**
2. Ethnic Identity-centrality	5.42 <sup>a</sup>	1.29	5.43	1.28	.34** *	-----	.32** *	-.02	.06	.07
3. Perceived Discrimination	2.63 <sup>b</sup>	1.00	2.58	1.02	.12**	.31** *	-----	.14*	.21** *	.26** *
4. Anxiety	2.63 <sup>b</sup>	0.64	2.64	0.66	-.27** *	-.06	.21**	-----	.66** *	.64** *
5. Psychological Distress	2.87 <sup>b</sup>	0.72	2.94	0.72	-.16** *	.04	.28** *	.67** *	-----	.67** *
6. Depressive Symptoms	0.64 <sup>c</sup>	0.46	0.62	0.49	-.19** *	.01	.30** *	.68** *	.68** *	-----

Note. Time 1 correlations above diagonal, Time 2 correlations below, <sup>a</sup> 1-7 scale, <sup>b</sup> 1-5 scale, <sup>c</sup> 0-3 scale. \*\*  $p < .01$ ; \*\*\*  $p < .001$

## INTRAGROUP STATUS, IDENTITY AND HEALTH

Table 2. Study 1 bivariate correlations among difference scores and percentage of participants changing more than 1 SD over time (from the mean difference score; T1 → T2)

Change in _____ Over Time	1	2	3	4	5	Participants with change > ±1 SD
1. Ethnic Intragroup Status	-----					30 %
2. Ethnic Identity- Centrality	.12*	-----				21 %
3. Perceived Discrimination	-.01	.13*	-----			27 %
4. Anxiety	-.09	.02	.14*	-----		26 %
5. Psychological Distress	.04	.05	.17**	.42***	-----	31 %
6. Depressive Symptoms	-.05	.08	.13*	.45***	.51***	27 %

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

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INTRAGROUP STATUS, IDENTITY AND HEALTH

Table 3. Study 1, standardized cross-lagged SEM regression coefficients for each segment of the ISAH model

	STAT $\rightleftarrows$ ID	ID $\rightleftarrows$ DISC	DISC $\rightleftarrows$ HTH	STAT $\rightleftarrows$ HTH
Hypothesized Effect	STAT <sub>1</sub> → ID <sub>2</sub> .13*	ID <sub>1</sub> → DISC <sub>2</sub> .09*	DISC <sub>1</sub> → HTH <sub>2</sub> -.05*	STAT <sub>1</sub> → HTH <sub>2</sub> .04 <sup>+</sup>
Reverse-effect	STAT <sub>2</sub> ← ID <sub>1</sub> .04, <i>ns</i>	ID <sub>2</sub> ← DISC <sub>1</sub> .12*	DISC <sub>2</sub> ← HTH <sub>1</sub> .02, <i>ns</i>	STAT <sub>2</sub> ← HTH <sub>1</sub> .10 <sup>+</sup>

*Note.* STAT = Ethnic Intragroup Status, ID = Ethnic Identity-centrality, DISC = Perceived Discrimination, HTH = Mental Health. Subscripts indicate the time point the construct was measured at. \*  $p < .05$ ; <sup>+</sup>  $p < .10$

INTRAGROUP STATUS, IDENTITY AND HEALTH

Table 4 Study 2 means, standard deviations and bivariate correlations among variables

Variable	Mean	SD	1	2	3	4	5	6	7
1. Intragroup Status	3.75 <sup>a</sup>	1.45	-----						
2. Identity-centrality	4.89 <sup>a</sup>	1.45	.20***	-----					
3. Perceived Discrimination	2.55 <sup>b</sup>	0.90	.07	.14*	-----				
4. Anxiety	2.71 <sup>b</sup>	0.80	-.41***	-.12 <sup>+</sup>	.17**	-----			
5. Psychological Distress	2.80 <sup>b</sup>	0.84	-.25***	.02	.24***	.65***	-----		
6. Depressive Symptoms	1.10 <sup>c</sup>	0.65	-.24***	-.13*	.34***	.71***	.73***	-----	
7. Identity-importance	5.12 <sup>a</sup>	1.62	.23***	.94***	.09	-.17**	-.01	-.15*	-----
8. Identity-salience	4.34 <sup>a</sup>	1.64	.07	.73***	.22***	.01	.07	.00	.48***

Note. <sup>a</sup> 1-7 scale, <sup>b</sup> 1-5 scale, <sup>c</sup> 0-3 scale. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; <sup>+</sup>  $p < .10$

INTRAGROUP STATUS, IDENTITY AND HEALTH

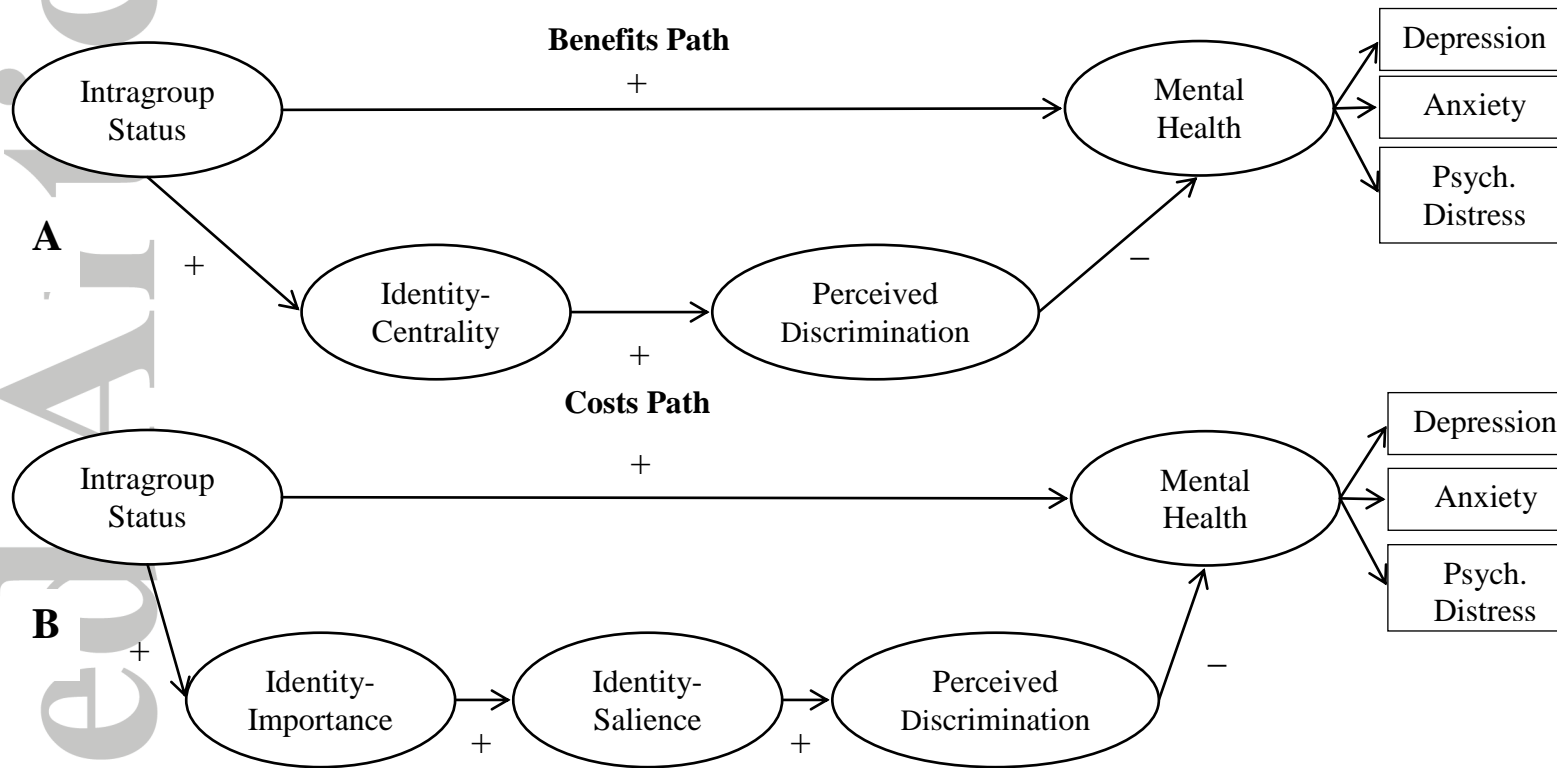


Figure 1. A schematic representation of the intragroup status and health model (A) and an adapted version (B) developed for examining these processes among individuals with concealable stigmatized identities (study 2). The *Benefits Path* (top path) and *Costs Path* (bottom path) reflect the direct mental health benefits and indirect mental health costs of ethnic intragroup status, respectively. Identity-importance and -salience (B) are two distinct dimensions, originally embedded within the broader -centrality construct (A).

INTRAGROUP STATUS, IDENTITY AND HEALTH

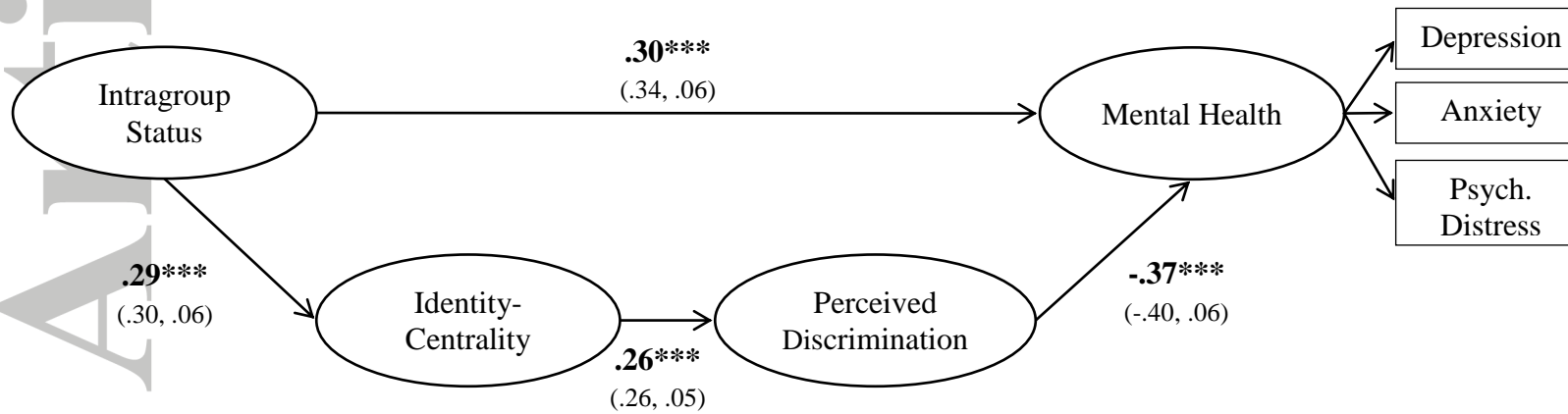


Figure 2. Results of Study 1. The intragroup status and health model with standardized path coefficients (unstandardized coefficients, standard errors) at Time 1: Satorra-Bentler  $\chi^2(73) = 194.4, p < .001$ , CFI = 0.97, SRMR = .06, RMSEA = .06 (CI: .05 - .07),  $R^2_{\text{psychological health}} = .21$ , Total Effect  $\text{intragroup status} \rightarrow \text{health}: \beta = .28, p < .001$ . Factor loadings are omitted for simplicity but all were significantly associated with their respective latent factors at  $p < .001$ . The significance and magnitude of path coefficients (and overall model fit) at Time 2 were very similar, all  $p$ 's  $< .001$ .  $*** p < .001$ .

# INTRAGROUP STATUS, IDENTITY AND HEALTH

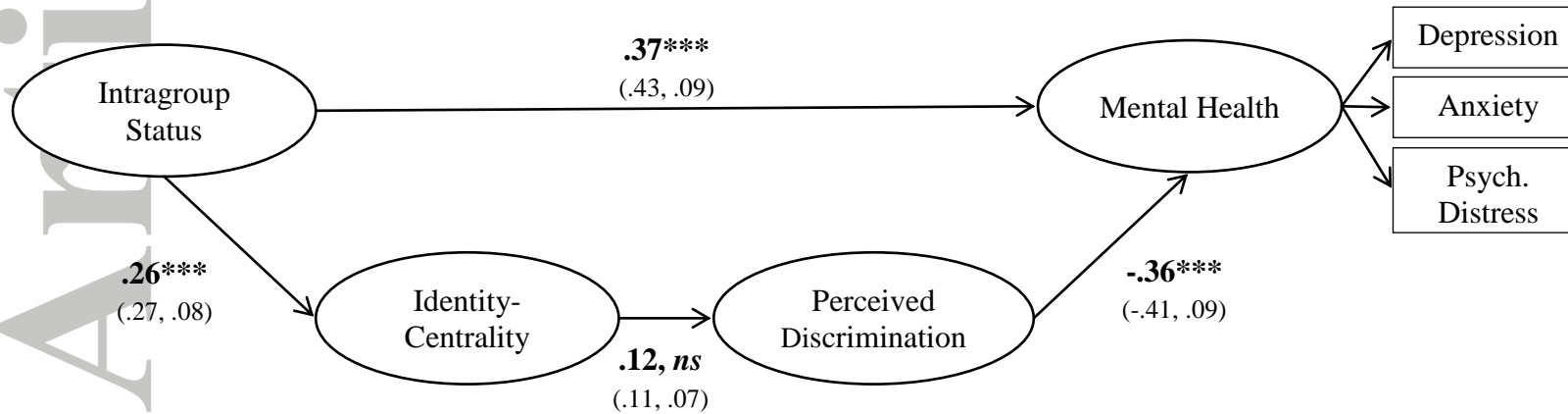


Figure 3. Results of Study 2, original intragroup status and health model in the context of concealable stigmatized identities, with standardized path coefficients (in parentheses: unstandardized coefficients, standard errors): Satorra-Bentler  $\chi^2(73) = 145.3, p < .001$ , CFI = .96, SRMR = .06, RMSEA = .06 (CI: .05 - .08). Factor loadings are omitted for simplicity but all were significantly associated with their respective latent factors at  $p < .001$ .  $^{***} p < .001$ .

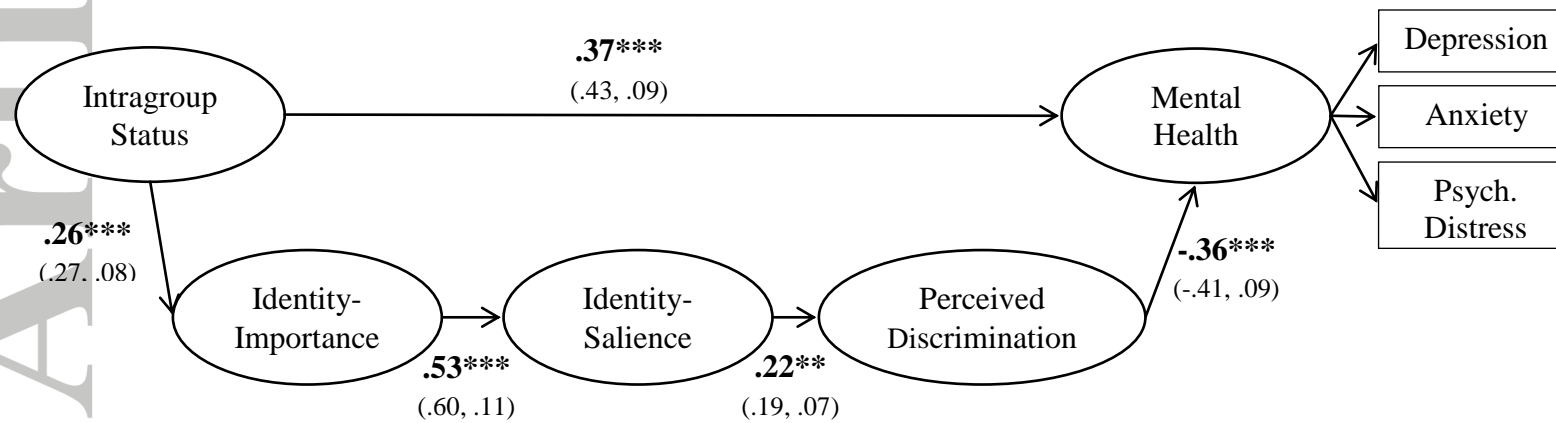


Figure 4. Results of Study 2, an adapted intragroup status and health model developed for use in the context of concealable stigmatized identities, with standardized path coefficients (unstandardized coefficients, standard errors). Factor loadings are omitted for simplicity but all were significantly associated with their respective latent factors at  $p < .001$ .  $^{***} p < .001$ ;  $^{**} p < .01$ .