

8-2018

## Hispanic Acculturation and Perceived Discrimination's Impact on Emerging Adult's Internalizing and Externalizing Symptoms Over Time: A Longitudinal Investigation.

Hector F. De Los Santos  
*Purdue University*

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**MEXICAN AMERICAN ACCULTURATION AND PERCEIVED  
DISCRIMINATION'S IMPACT ON EMERGING ADULT'S  
INTERNALIZING AND EXTERNALIZING SYMPTOMS OVER TIME: A  
LONGITUDINAL INVESTIGATION**

by

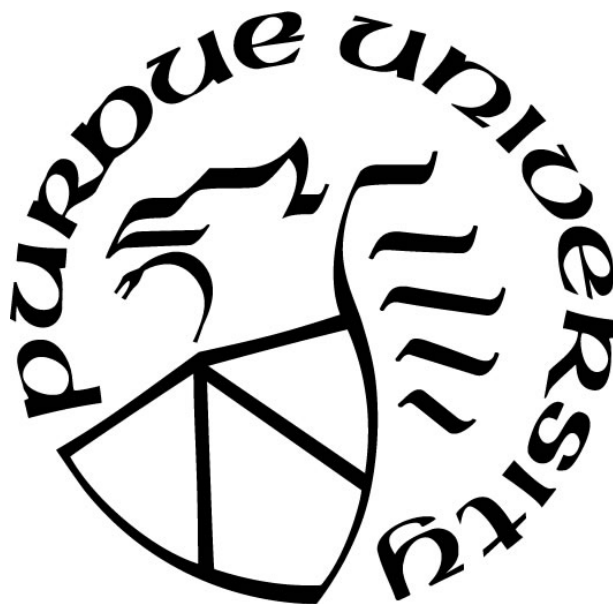
**Hector F. De Los Santos**

**A Dissertation**

*Submitted to the Faculty of Purdue University*

*In Partial Fulfillment of the Requirements for the degree of*

**Doctor of Philosophy**



Department of Psychological Sciences

West Lafayette, Indiana

August 2019

**THE PURDUE UNIVERSITY GRADUATE SCHOOL  
STATEMENT OF COMMITTEE APPROVAL**

Dr. David Rollock, Chair

Department of Psychological Sciences

Dr. Sean P. Lane

Department of Psychological Sciences

Dr. Donald R. Lynam

Department of Psychological Sciences

Dr. Jean M. Beaman

Department of Sociology

**Approved by:**

Dr. David Rollock

Head of the Graduate Program

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## ABSTRACT

Author: De Los Santos, Hector, F. PhD

Institution: Purdue University

Degree Received: August 2019

Title: Mexican Acculturation and Perceived Discrimination's Impact on Emerging Adult's Internalizing and Externalizing Symptoms Over Time: A Longitudinal Investigation

Major Professor: David Rollock

Perceived discrimination and acculturation are key minority status and cultural variables that impact Hispanic mental health. Despite discrimination being a chronic stressor and acculturation being a developmental process, the impact of these experiences have been primarily investigated cross-sectionally. This paper uses longitudinal analyses to explore how perceived discrimination and acculturation impact growth internalizing and externalizing symptoms over time, adding nuance to previous literature. Using the Pathways to Desistance Mexican American sample ( $N = 332$ ), this paper utilized latent growth curve analyses to evaluate acculturative theories on mental health and the immediate and longitudinal impact of discrimination on a broad spectrum of mental health outcomes. Results indicate that higher initial status in Mexican orientation predicted less growth in internalizing symptoms, and growth in Mexican orientation predicted less growth in alcohol use, substance use, and criminal offending over time. Interestingly, growth in American cultural orientation did not predict growth in internalizing or externalizing symptoms. Baseline perceived police discrimination cross-sectionally was associated with greater internalizing, substance use, and criminal offending, but did not predict growth in mental health challenges. Moderation analyses also indicated that higher initial status in Mexican orientation and American orientation

was related to less growth in internalizing symptoms but unrelated to externalizing symptoms. Neither Mexican nor American orientation moderated the impact of discrimination on internalizing or externalizing symptoms. Altogether these results provide no support for the position of Americanization being key to better mental health outcomes, and supports the acculturative theories that point to integrated cultural identities and strong Hispanic cultural identity being protective against mental health.

## **INTRODUCTION**

Hispanics, the largest ethnic minority population in the United States, experience challenging cultural and minority status specific challenges and stressors that impact mental health (Schwartz, Unger, Zamboanga, & Szapocznik, 2010). The experience of cultural transition can bring about stress as Hispanics balance gaining facility within a different culture while maintaining the important tenets and values of Hispanic culture (Sam & Berry, 2010). Perceived discrimination is a persistent, daily stressor for Hispanics that impacts mental health often as Hispanics are acculturating (De Los Santos, in prep; Pascoe & Richman, 2009; Schwartz et al. 2012). It is important to understand how cultural adaptation through acculturation and cultural, minority stress through discrimination independently and conjointly impact the development of mental health and maladaptive behaviors. Unfortunately, little research has attempted to evaluate how development of acculturation over time impacts mental health or impacts discrimination's impact on mental health and maladaptive behaviors (Sam & Berry, 2010; Schwartz et al., 2010). This study looks to investigate these questions.

### **Hispanic Acculturation**

Acculturation is the process that occurs during intercultural contact for immigrants, capturing the dynamic process of navigating, adapting, eschewing, retaining, and adopting different aspects of the receiving and heritage culture (Schwartz et al., 2010). This process has been evaluated through proxies (i.e. generational status), unidimensional, and bidimensional approaches (Davis & Engel, 2008). Proxy measures, like generational status, while evaluating group level differences in immigrant generational status, likely do not account for individual differences and nuance in the

process of acculturation. Measuring acculturation through proxies does not account for the nuance involved in cultural transition, particularly when acculturation is reduced to an immutable characteristic like simply generational status (Thomson & Hoffman-Goetz, 2009). Group level characteristics are also not useful for intervention because they are immutable. Unidimensional approaches measure a spectrum of immersion in heritage culture to assimilation within the host culture on a single continuum, but captures a limited vantage point on the developmental process of acculturation (Davis & Engel, 2008; Sam & Berry, 2010). Within this approach, gains in assimilation correspond to loss of heritage culture, and growth is considered unidirectionally towards assimilation. In the bidimensional view of this process, individuals may gain facility in the receiving culture or eschew the receiving culture to varying degrees on one dimension, and may retain facility in their heritage culture or eschew their heritage culture to varying degrees on a separate dimension (Berry, 1997). This bidimensional view of acculturation describes a dynamic process in which individuals are not static in their journey of acculturation, such that there are individual differences in degree of acculturation and within-person change in acculturation across multiple dimensions (Koneru, Weisman de Mamani, Flynn, & Betancourt, 2007). Though the developmental process is integral to acculturation, acculturation rarely has been investigated as a developmental process over time in adults or from late adolescence to emerging adulthood in Hispanics (Lui, 2014; Thomson & Hoffman-Goetz, 2009). Instead years in U.S. and generational status for acculturation have been used to approximate acculturation over time (Torres, 2010). These issues have left gaps in the literature for how Hispanic individuals bidimensionally acculturate over time, and how acculturating specifically impacts mental health over time.

Different acculturative theories have been posed to explain how acculturation impacts mental health. The assimilationist perspective borrows from cultural learning theory to suggest that the most adaptive approach for immigrants is immersion within the receiving culture, and distance from heritage culture. As this process occurs and immigrants gain facility understanding the language and values of the receiving culture, stress that comes with navigating novel social situations and lacking English proficiency will decrease and mental health would improve (Gordon, 1964; Masgoret & War, 2006). This assimilationist view focuses on “Americanization” being key to improvement in psychological wellbeing and protection from psychological distress. The “immigrant paradox” raises an empirical challenge to the assimilationist perspective and suggests a protective effect of heritage culture on mental health. The immigrant paradox is characterized by the findings that immigrants spend more time in the receiving culture their mental health and academic achievement worsens, such that later generations fare worse psychologically and first generation immigrants appear buffered from the anticipated costs of acculturating (Alegria et al., 2008; Vaughn, Salas-Wright, DeLisi, & Maynard, 2013). These results have been found particularly when using time in U.S. or immigrant generational status to predict mental health outcomes. This view focuses on cultural identity being protective against mental health through positive cultural values such as familismo, collectivism, and respect for authority (Schwartz et al. 2012, Unger et al., 2015). Research also has suggested that strong ties to heritage culture can decrease stress by reducing intergenerational conflict and increasing family cohesion (Smokowski, Rose, & Bacallao, 2008). In response to results like these, biculturalist or integrative theorists believe that having an integrated cultural identity, with a strong anchor in

Hispanic culture alongside a working understanding and facility within American culture leads to the most well adapted immigrants (Berry, 1997; Sam & Berry, 2010). Support for these different theories has been mixed, in part because of inconsistent operationalization of acculturation, as well as because of lack in developmental research explicating how the process of acculturation impacts mental health over time (Sam & Berry, 2010; Schwartz et al., 2012). These conflicting theories and results can be reevaluated using longitudinal analyses to better capture the nuance in how generational status and acculturation impact mental health and correlates to mental health within Hispanics both immediately and over time.

Calls for longitudinal analyses of acculturation are replete throughout the literature to push forward the understanding of the relationship between acculturation with mental health (Koneru et al., 2007; Sam & Berry, 2010; Schwartz et al., 2010; Telzer, 2010). Evaluating acculturation's relationship with mental health over time, while using bidimensional measures of acculturation, provides the opportunity to test several of the main assumptions of the acculturative process. Beyond generational status, acculturation includes different degrees of understanding of the host and heritage culture, diversifying the ethnic constitution of friendships, language of preference, and changes in identification. The richness of this process and the varying speeds at which Hispanics retain or eschew their heritage culture and grasp or reject the host culture may clarify the mental health impact of acculturation more directly than generational status. The process by which Hispanic and American acculturation influences mental health can be quantified using longitudinal analyses, testing the veracity of different acculturative theories described above. Additionally, evaluating acculturation and generational status



together may be productive in disambiguating how acculturation impacts mental health, and whether individual differences in acculturation, rather than generational status, offer greater explanatory power for mental health outcomes.

While acculturation research more commonly has focused on psychological adaptation (i.e. depression and anxiety), recent studies have found that different levels of initial acculturation may be important for understanding initial status and growth over time in externalizing behaviors for Hispanics (Unger et al., 2015), extending acculturation's impact to sociocultural outcomes (i.e. behavioral problems and social competence). Throughout this process of acculturation and cultural adaptation, prevalent cultural stressors, namely perceived discrimination, are impacting mental health and interacting with acculturation to impact mental health.

### **Hispanics and Discrimination**

Perceived Discrimination is a persistent, daily stressor for Hispanics (De Los Santos, 2017; Pascoe & Richman, 2009). Perceived Discrimination is the experience of unfair treatment, ostracization, lack of opportunity, or being ignored, with this maltreatment being attributed to a personal characteristic. This maltreatment can occur across a variety of settings including but not limited to school, law enforcement, healthcare, neighborhoods, and the justice system. These experiences are unpredictable and difficult to plan for, and can occur acutely and chronically, making them particularly harmful to physical and mental health (Williams & Mohammad, 2009). While the cross-sectional mental health impact of discrimination has been established, there remain aspects of this minority status stressor that are understudied and potentially misunderstood (De Los Santos, 2017; Pascoe & Richman, 2009). For Hispanics, the

largest ethnic minority group in the United States, a gap remains in understanding how discrimination affects the full spectrum of mental health, both immediately and chronically.

Discrimination has been linked to nonspecific distress and mental health in ethnic minorities and Hispanics (Cano et al., 2015; De Los Santos, 2017; Pascoe & Richman, 2009). As a pervasive stressor for minorities, perceived discrimination impact on mental can be explained through the stress-coping model, such that stress is the difference between the demands of the stressful encounter and the resources available to coping with the stressor (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Pascoe & Richman, 2009). Following this model, discrimination, like other stressors, can be chronic and accumulate, depleting environmental and psychological coping resources, likely leading to more negative mental health outcomes over time (Pascoe & Richman, 2009). Similarly, the microaggression literature indicates that discriminatory experiences, though initially not obviously detrimental, can build over time to become increasingly distressing or challenging (Pascoe & Richman, 2009; Sue, 2010; Torres & Taknint, 2015). Given this understanding of experiences of discrimination, the effect of discrimination should be looked at longitudinally for its effect over time (De Los Santos, 2017; Torres, 2015). Past literature has not adequately investigated protracted or aggregated effects of discrimination on mental health for Hispanic adults. A recent meta-analysis of discrimination with Hispanic adults found that longitudinal investigation of the mental health consequences of discrimination was exceedingly rare (De Los Santos, 2017). These few studies however have indicated that discrimination is predictive of more mental health challenges in the future (Cano et al., 2015; De Los Santos, in press;

Torres & Ong, 2010, Unger, Schwartz, Huh, Soto, & Baezconde-Garbanati, 2015). Their research indicates that there may be delayed and prolonged effects that are understudied within the Hispanic literature of discrimination. The negative mental health toll of discrimination may be understated and underestimated because of the dearth of longitudinal studies, affecting how researchers and clinicians approach contributors to distress and mental health for Hispanics.

Additional gaps in the literature appear in the relationship between discrimination and the full spectrum of mental health. Symptoms of psychopathology can be experienced or expressed in a variety of ways, falling within one of two broad spectrums: internalizing psychopathology or externalizing psychopathology. Internalizing behaviors are the “turning inward” of emotion, and are exhibited behaviorally as depressive or anxiety symptoms. Externalizing behaviors are the “pushing outward” of emotion, and are exhibited behaviorally as substance use, hostility and aggression, outburst, deviant behavior, and risky sexual behavior (Krueger, Markon, Patrick, & Iacono, 2004). Research on the negative effects of perceived discrimination on Hispanics have consistently focused on the internalizing spectrum of behaviors, to the near exclusion of the externalizing behaviors beyond substance use (De Los Santos, in prep). In the few studies that have investigated externalizing behavior there appears to be an important relationship similar in strength to internalizing behaviors, with greater perceived discrimination predicting more externalizing symptoms (Alamilla, Kim, & Lam, 2009; Cano et al., 2015; Torres & Vallejo, 2015; Schwartz et al., 2015). This is important particularly when considering how discrimination may impact externalizing trajectories during critical periods like emerging adulthood when adolescents tend to experiment with

illicit activities (Schwartz et al., 2015). The dearth of studies obscures what may be an important influence of discrimination on externalizing symptoms over time. Previous research focus on discrimination connection with only Hispanics internalizing symptoms restricts the understanding of the full impact of discrimination on mental health. It also limits the understanding of how discrimination may contribute to the externalizing behaviors. Determining how an important minority status stressor for Hispanics affects the full spectrum of mental health is key to providing direction of culturally competent clinical practice, and past research has mostly ignored half of the behaviors exhibited in psychopathology.

### **Acculturation and Discrimination**

The Hispanic psychological literature indicates that acculturation and discrimination not only impact psychological distress separately but also likely interact to affect mental health. Experiencing discrimination is a component in the process of acculturation for Hispanics, and typically has been included as an aspect acculturative stress. Past studies with Hispanics have indicated that being less acculturated to American culture increased the impact of discrimination on stress (Torres, Driscoll, & Voell, 2012). Other research examining generational status found that compared to first generation immigrants later generations reporting experiencing “othering” or being made to feel dissimilar to other Americans (Virall-Fuentes, 2007). The research on the effect of high Latino acculturation is mixed, with some studies indicating that being strongly oriented towards Latino culture can have a protective effect against the negative impact of discrimination, while other studies with East Asians and Latinos have found that being strongly acculturated to one’s culture of origin had no relation to the impact of

discrimination on mental health (Araujo Dawson, 2009; Hwang & Ting, 2008; Torres, Driscoll, & Voell, 2012). The lack of consensus in the literature indicates additional investigation to how Mexican and American acculturation may moderate discrimination's impact on internalizing and externalizing throughout development.

### **Rationale**

The fundamental gaps in the literature regarding longitudinal analysis of cultural and minority status contributors to mental health in Mexican American emerging adults is the focus of this study. Understanding how discrimination affects mental health, operationally defined as internalizing and externalizing symptoms, over time has been understudied. This study looks to elucidate this relationship by focusing on the impact of perceived police discrimination, for a sample that has had previous contact with police. The impact of perceived police discrimination is similar in magnitude to that of general perceived discrimination, and similarly has rarely been investigated for its impact on maladaptive behaviors and mental health over time (De Los Santos, in prep). The lack of understanding regarding how discrimination affects the broad spectrum of mental health limits empirical conclusions and clinical considerations of perceived discrimination.

The study also looks to address gaps within the understanding of how acculturation develops over time, acculturation's impact on mental health, and the predictive utility of generational status vs. bidimensional measures of acculturation for mental health outcomes. Evaluating acculturation, a developmental and bidimensional construct, longitudinally will provide a more rigorous test of how individuals acculturate, and how the process of acculturation affects mental health. By looking at how individuals are acclimating to the receiving culture while also retaining/eschewing heritage culture

over time, this study looks to examine the complexity of acculturating in the way that theory states it should be, longitudinally. Additionally, longitudinal analyses will be utilized to evaluate how Mexican and American acculturation impact both internalizing and externalizing symptoms over time. This will provide a test and reevaluation of assimilationist and biculturalist perspectives, as well the “immigrant paradox” by evaluating how growth and decreases in these two aspects of acculturation impact the full spectrum of mental health. The present study looks to evaluate these challenges and gaps in the Hispanic discrimination, acculturation, and mental health literature over a five-year span in one year increments.

### **Hypotheses**

1. Mexican Acculturation will decrease over time.
2. American Acculturation will grow over time.
3. Generational Status will predict initial status and growth of American and Mexican Acculturation, such that:
  - a) first generation immigrants grow more slowly and have a lower intercept than second generation immigrants in American acculturation.
  - b) First generation immigrants will have a higher initial status in Mexican Acculturation, and will decrease at a smaller rate than second generation immigrants.
4. Degree of Perceived Police Discrimination will grow over time.

5. Generational Status will be associated with growth of perceived discrimination over time, such that U.S. born Mexican Americans will grow more in perceived discrimination over time.
6. Initial status and change in Mexican Acculturation will predict change in internalizing symptoms, by being ameliorative to psychological distress.
7. Initial status and growth in Mexican Acculturation will predict change in externalizing symptoms, by predicting less growth in externalizing symptoms.
8. Initial status and growth in American Acculturation will predict change in internalizing symptoms, and per the assimilationist perspective will reduce growth in internalizing symptoms.
9. Initial status and change in American Acculturation will predict change in externalizing symptoms, and per the assimilationist perspective will reduce growth in externalizing symptoms.
10. Initial status and growth in Perceived Discrimination will predict greater growth in internalizing symptoms.
11. Initial status and growth in Perceived Discrimination will predict greater growth in externalizing symptoms.
12. Mexican acculturation will moderate the relationship between perceived discrimination and linear growth in internalizing and externalizing symptoms, respectively, such that being high in

Mexican Acculturation will reduce the discrimination-distress relationship.

13. American acculturation will moderate the relationship between Perceived Police Discrimination and linear growth in internalizing symptoms and externalizing symptoms, respectively, such that being high in American Acculturation will reduce the discrimination-distress relationship.
14. American orientation will moderate the relationship between Mexican acculturation and linear growth in internalizing and externalizing symptoms, such that when individuals are high in initial status in American Acculturation there is a decrease in growth of internalizing and externalizing symptoms over time.



## METHOD

### Sample

The present study will utilize the Mexican American sample from the 24 month, 36 month, 48 month, 60 month, and 72 month waves of the Pathways to Desistance project, a longitudinal study conducted from 2000 through 2008, involving 1354 justice-involved adolescents in Maricopa County, Arizona, and Philadelphia County, Pennsylvania, as they transitioned into adulthood (Mulvey, 2012). These youths were at least 14 years old and under 18 years old at the time of their committing offense when the initial wave was collected. The data during the above months were collected the same month each year for the five years selected, and the average age of participants by the 72-month wave was between 21-22 years old. The 24-month wave was used as the baseline sample in this investigation for two reasons. This five-year span covers Mexican American adjudicated adolescents during emerging adulthood (ages 16-21), a critical period characterized by identity development, experimentation, and an increase in alcohol and substance use, and “acting out” (Schwartz et al., 2015). The content of this dataset makes it ideal for evaluating cultural identity, minority status, and internalizing and externalizing symptoms. The second reason was that perceived discrimination as operationalized here contains items regarding police discrimination. Traffic related incidents are the most common civilian contacts with the police in the United States (Bonzcar, 2003), and these are less likely to happen at younger than 16 years old, so the 16-year-old minimum age at 24-month fit as the baseline. The Hispanic sample include 454 individuals (13% women, 15% 1<sup>st</sup> generation immigrant). Individual items were not available in this dataset, so means and Cronbach’s alphas were provided for each of the

measures means by the principal investigators of the Pathways to Desistance Project if appropriate.

## Measures

### Procedural Justice Inventory

The Procedural Justice Inventory was adapted for the Pathways to Desistance study to measure each participant's perception of equity connected with legal entities (Mulvey, 2012; Tyler, 1997; Tyler & Huo, 2002). This comes from the concept that there is an experiential foundation for transforming interactions with legal processes (police) into perceptions and evaluations of the law and legal actors. For the current investigation, perceived police discrimination was assessed by the Procedural Justice - Others Experience with Police subscale, a subscale from the 55-item measure for procedural justice. Perceived police discrimination is a subscale composed of 5 items measured on a 5 point likert-scale (1 = *strong disagree* to 5 = *strongly agree*), assessing questions such as "police treat people differently depending on their gender, race or ethnicity, age, neighborhood". This scale was reverse coded for this investigation, so that higher scores indicate higher perceived discrimination, and lower scores indicate lower perceived discrimination. Confirmatory factor analyses of this scale by the authors for the whole sample showed support for a composite score of this scale ( $\alpha = .57$ , NFI = .96, CFI = .97, RMSEA = .06). The Cronbach's alpha for this subscale was .67, .71, .68, .71, and .71 for each wave respectively, but was only available for the whole Pathways to Desistance study, which included Euro Americans and African American.

## **Acculturation**

The Acculturation Rating Scale for Mexican Americans-II (ARSMA, Cuellar, I., Arnold, B., & Maldonado, R. 1995) consists of two 18-item scales that assess four factors of acculturation: language use and preference, ethnic identity and classification, cultural heritage and ethnic behaviors, and ethnic interaction. Participants rate the degree to which statements are true of them, with 1 being “not at all” and 5 being “extremely often or almost always”. Example items are “My friends are now of Anglo origin”, “I enjoy Spanish movies”, and “I like to identify myself as a Mexican”. Factor analyses were completed by the investigators of the study finding that two separate super-ordinate factors for Mexican Orientation (12 items) and Anglo Orientation (11 items) fit the data (Mexican Orientation: CFI = .96; TLI = .95, RMSEA = .077; Anglo Orientation: CFI = .95; TLI = .93; RMSEA = .069; CFI = .96, TLI = .95, RMSEA = .077). These superordinate factors were composed of two subscales each, Mexican affiliation and Spanish language, and Anglo Affiliation and English Language. The internal consistency of this each scale is .87.

## **Brief Symptom Inventory**

The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) is a 53-item self-report inventory that measures the presence of a wide variety of symptoms in the past week on a 5 point likert-scale (0 = “not at all” to 4 = “extremely”). The BSI is composed of nine subscales designed to assess individual symptom groups: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (Cronbach alpha = .68 – .84). The BSI has a global severity index that broadly measures psychological distress, and is the average of the

each of the means of each of these subscale scores, and will be the general measure of internalizing symptoms. Cronbach's alpha for the global severity index is .96 for each wave of interest.

### **Externalizing**

A composite was created from the following criminal offending, substance use, and alcohol use scales by z-scoring each of the scales for each year, and then mean averaging across all three scales for each respective year. Substance use and antisocial behavior have been found to be represented by an externalizing spectrum (Krueger, Markon, Patrick, & Iacono, 2004).

### **Criminal Offending**

The Self-Reported Offending (SRO; Hulzinga, Esbensen, & Weiher, 1991) was modified for the Pathways to Desistance project to measure adolescent's account of criminal offending. The SRO is a 24-item inventory that assesses both perpetration and frequency of offenses such as "Been in a fight?", "ever broke into a car to steal?", "sold illegal drugs?", "shoplifted?", etc. The measures used from larger scale is the Total Offending Variety-Proportion scale, which provides a proportion score of the number of criminal acts endorsed over the total number of SRO questions asked. The closer the proportion is to 1, the greater the variety of offenses the adolescent committed. This measure is included with externalizing behaviors. Participants in this sample had low base rates of self-reported offending, giving the distribution a positive skew for each wave. Each wave was natural logarithmic transformed to reduce the skew and kurtosis to normal levels.

## **Substance Use**

The Substance Use/Abuse Inventory is a modified version of a substance use measure developed by Chassin and colleagues that measures the use of illegal drugs and alcohol over the past six months and lifetime use for a study of children of alcoholics (Chassin, Rogosch, & Barrera, 1991). This measure is composed of the following subscales: Substance Use, Social Consequences, and Dependency and Treatment. The Substance Use subscale assesses alcohol use and dependence (frequency of use in past six months, six month and lifetime dependency symptoms; "How often have you had alcohol to drink?"), illegal drug use and dependence (frequency of use in past six months, count of different drugs in past six months, six month and lifetime dependency symptoms), smoking use (frequency of use), and social consequences (six month and lifetime count of social consequences due to alcohol and drug use; "Have you ever had problems or arguments with family or friends before because of your alcohol or drug use?"). Drinking frequency in past six months and Substance Use Frequency in past six months were the subscales that were utilized in this study, and are considered externalizing variables. Participants in this sample had low base rates of substance and alcohol use, giving the distribution a positive skew for each wave. Each wave was natural log transformed to reduce the skew and kurtosis to normal levels.

## **Demographic Variables**

Participants reported their gender (1 = men, 2 = women), ethnicity (white, black, Asian, Native American, Hispanic, and other), and immigrant generational status (1<sup>st</sup> generation or U.S. born). For the purposes of this investigation, only Hispanics will be

evaluated. Unfortunately, information regarding country of origin was not evaluated, so analyses of Hispanic subgroups are not possible.

### **Data Analytic Plan**

In preliminary analyses, normality, missingness, and correlations were evaluated for all study variables.

Latent growth curve (LGC) models, a form of structural equation modeling, were used to evaluate the above hypotheses. Latent growth models can be used to predict change for longitudinal data that is time structured and has a continuous dependent variable measured at least three different times, fitting with the data available. More importantly, latent growth curve models were chosen because of their ability to estimate change over time with a latent slope factor and latent intercept factor, and then use these growth parameters to predict change in the growth factor and initial status of an outcome variable. Change over time is estimated using repeated measures of variables as indicators. In LGC models, intercept and slope become parameters that can be used to predict the intercept and change over time of other outcome variables. The slope estimates the change per year, and the intercept is the mean initial value for a variable at baseline, which in this analysis is 24 months. For example, in a LGC model in which the repeated measures of perceived discrimination are specified as indicators for slope and intercept, the latent slope would estimate the degree of change/growth per year in discrimination, and the latent intercept factor would give the initial mean value for discrimination at baseline year. For the latent growth curve models employed, the intercept was set at baseline, and for the linear slope, year 1 was constrained to 1, year 2 constrained to 2, year 3 was constrained to 3, and year 4 was constrained to 4. For

quadratic slope year 1 was constrained to 1, year 2 was constrained to 4, year 3 was constrained to 9, and year 4 was constrained to 16 to model exponential change. The flexible latent growth curve model syntax for Mplus constrains repeated measures in this manner for intercept, linear slope, and if requested quadratic slope, as a default (Muthen & Muthen, 1998-2010). Additionally, with LGC models it is possible to include time-invariant covariates (e.g. demographic variables) to assess their impact on baseline and the growth of a variable over time. For example, it is possible to evaluate how generational status (first generation versus other) or gender predicts the initial status and change in discrimination over time. As is recommended, latent growth models will first be estimated without covariates, specifying any needed covariances for best model fit, before then adding time invariant covariates, in this case age, gender, and generational status, that may predict change over time (Kline, 2015). The standards used for goodness of fit were nonsignificant chi-square, CFI above .950, RMSEA < .08, and SRMR < .05 (Hu & Bentler, 1999). Full information maximum likelihood was the estimator utilized for analyses to manage missingness at random. Generational status role was evaluated as covariate and moderator instead of doing multigroup analyses because the rule of thumb for minimum sample of 200 individuals in each group was not achieved (Marsh, Hau, & Wen, 1998).

The below models are each represented within Supplemental Materials under Figures. To examine Hypothesis 1 and 2, a latent growth curve model was specified for American acculturation and Mexican acculturation separately, respectively with Acculturation at Wave 0, 1, 2, 3, and 4 as indicators. The slope and intercept of this latent growth model provides a measure of growth of American acculturation and Mexican

acculturation independently. To evaluate Hypothesis 3, generational status is included as a covariate to estimate the effect on the initial status and growth of acculturation. To examine Hypothesis 4 of discrimination growing over time, a latent growth curve model was specified for discrimination, with Discrimination at Wave 0, 1, 2, 3 and 4 as repeated measures indicators. The slope and intercept of this latent growth model estimated growth of discrimination per year. To examine Hypothesis 5, generational status was added to estimate its effect on baseline and change in discrimination. To evaluate Hypothesis 6-9, a latent growth curve model was estimated with the slope and intercept of American acculturation and Mexican Acculturation (Mexican) predicting growth in internalizing and externalizing symptoms. To do this first a latent growth curve model was specified for internalizing symptoms with Internalizing symptoms at time 0, 1, 2, 3, and 4 as indicators, and Externalizing symptoms at time 0, 1, 2, 3, 4. The respective slope and intercept of this latent growth model estimates change in internalizing symptoms and externalizing over time. To evaluate Hypothesis 10 and Hypothesis 11, the slope and intercept of internalizing symptoms were regressed on the slope and intercept of discrimination to evaluate how growth in discrimination predicts change in internalizing symptoms. The slope and intercept of externalizing symptoms were separately regressed on the slope and intercept of discrimination to evaluate how growth in discrimination predicts change in externalizing symptoms. To evaluate Hypothesis 12, a LGC model was estimated with Mexican acculturation moderating the relationship between perceived police discrimination and growth in internalizing and externalizing symptoms, respectively. For Hypothesis 13 a LGC model was estimated with American acculturation



moderating the relationship between perceived police discrimination and growth in internalizing and externalizing symptoms, respectively.

Finally, for Hypothesis 14 a LGC model was estimated with American acculturation growth parameters moderating the relationship between Mexican Acculturation growth parameters and linear growth in internalizing and externalizing symptoms, respectively, to evaluate if certain combinations of acculturation (biculturalism) will be most advantageous.

When calculating latent interactions with growth parameters in Mplus, typical fit statistics including CFI and RMSEA are not available, and latent interactions require using the XWITH command. Mplus statistical software (Muthen & Muthen, 1998-2010) was the statistical package used to perform the above analyses.

### **Basic Relationships Among Demographic Variables and Discrimination, Acculturation, and Mental Health Variables**

Table 1 in Supplemental Materials presents the means, standard deviations, and correlations among all variables across each wave. Psychological distress, substance use frequency, alcohol use frequency, and criminal offending proportion were all positively skewed and kurtotic ( $k > 2$ ). A natural logarithmic transformation reduced skewness and kurtosis to normal levels of psychological distress, while 1 unit was added to all participants for criminal offending, alcohol use, and substance use before the natural logarithmic transformation to reduce skewness and kurtosis to normal levels.

The Pathways to Desistance dataset had issues with missing data, specifically with the acculturation variables and psychological distress variables. To answer the questions for the acculturation measure participants needed to specify whether they were

Mexican American. Across the five time points, a range between 104-107 participants were issued to skip the acculturation measure because reported they were not Mexican American. Analyses including acculturation variables therefore had 332 (15% 1<sup>st</sup> generation immigrant) participants. Analyses with Mexican and American acculturation included thus can only be generalized to Mexican Americans. There was also missing data regarding psychological distress variables. According to the Pathways to Desistance dataset, this missingness was due to participants providing an invalid test administration. This missingness was missing at random per missing variable analysis on SPSS. For the discrimination, alcohol use frequency, substance use frequency, and criminal offending variables, most participants responded to all questions with limited missingness completely at random.

Age was not significantly correlated with any study variables. Gender was significantly negatively associated with psychological distress at baseline through year 3, with men endorsing more psychological distress. Gender was negatively associated with perceived police discrimination at year 2, with men endorsing higher perceptions of police discrimination. Gender also was associated with Anglo Orientation, with women being associated with greater Anglo orientation from baseline through year 4. Gender was not associated with externalizing symptoms at any year. Generational status was positively associated with Mexican orientation from the baseline year through year 4, indicating that 1<sup>st</sup> generation immigrant status endorsed higher scores on Mexican orientation. Generational status also was negatively correlated with American orientation from baseline through year 4, indicating that 1<sup>st</sup> generation immigrants reported lower American orientation than U.S. born immigrants. Generational status was correlated with

externalizing symptoms at year 3, indicating that U.S. born Mexican Americans reported more externalizing behaviors than 1<sup>st</sup> generation immigrants.

Baseline perceived police discrimination was not associated with any year of internalizing symptom. Year 1 perceived police discrimination was associated with greater year 1 and year 2 internalizing symptoms. Year 2 perceived police discrimination was associated with greater year 1, year 2, year 3, and year 4 internalizing symptoms. Year 3 perceived police discrimination was associated with greater baseline, year 1, year 2, and year 3 internalizing symptoms. Year 4 perceived police discrimination was associated with greater year 1, year 2, and year 3 internalizing symptoms. The general pattern of correlations between perceived police discrimination and internalizing symptoms indicate that perceived police discrimination is related to greater challenges with psychological distress.

Baseline perceived police discrimination was associated with greater year 1 externalizing behaviors. Year 2 perceived police discrimination was positively correlated with year 1, year 2, and year 3 externalizing behaviors. Year 3 perceived police discrimination was positively associated with year 2 externalizing behaviors. These correlations indicate that greater perceived discrimination was associated with greater externalizing behaviors over time.

Baseline Mexican Orientation was negatively correlated with internalizing symptoms distress at year 1, year 3, and year 4, year 1 Mexican orientation was negatively correlated with internalizing symptoms at year 3 and year 4, year 2 Mexican orientation was negatively correlated with internalizing symptoms at year 3 and year 4, year 3 Mexican orientation was negatively associated with internalizing symptoms at

year 3 and year 4, and year 4 Mexican orientation was negatively associated with internalizing symptoms at year 3 and year 4. These relations generally point to greater Mexican orientation being associated with fewer internalizing symptoms.

Year 1 Mexican orientation was associated with less year 1, year 3, and year 4 externalizing symptoms. Year 2 Mexican orientation was associated with less year 1 and year 4 externalizing behaviors. Year 3 Mexican orientation was associated with year 3 and year 4 externalizing behaviors. Year 4 Mexican orientation was associated with less year 3 and year 4 externalizing symptoms. These results indicate mixed associations across time between Mexican orientation and externalizing symptoms.

Baseline Mexican orientation had a small negative correlation with year 1 and year 3 American orientation, year 1 Mexican orientation had a small negative correlation with year 3 American orientation, year 3 Mexican orientation had a small negative correlation with year 1 American orientation, and year 4 Mexican orientation had a small negative association with year 1 and year 2 American orientation. In general, Mexican orientation was either not correlated with American orientation or only slightly negatively correlated with American orientation, indicating that Mexican and American orientation dimensions may be relatively orthogonal to the other.

American orientation at year 3 was positively correlated with baseline internalizing and year 3 internalizing, indicating that higher American orientation was associated with greater internalizing symptoms. Overall, American orientation was unrelated to internalizing symptoms across time.

Baseline American orientation was associated with fewer year 2 and year 3 externalizing symptoms. Year 2 American orientation was associated with fewer year 3

externalizing symptoms. Year 3 American orientation was associated with fewer year 2 and year 3 externalizing symptoms. These results indicate that mixed associations across time of American orientation on externalizing symptoms.

### **Unconditional Growth Curve Models**

Thorough tables for each latent growth curve model estimated can be found in Supplemental Materials. Tables for the conditional models with fit statistics can be found in Table 1.

### **Mexican Orientation**

The unconditional measurement model with a linear slope specified fit well  $\chi^2(10) = 18.58, p = .05, CFI = .994, RMSEA = .051, SRMR = .026$ . The conditional model with age, gender, and generational status added as covariates also fit the data well,  $\chi^2(22) = 33.00, p = .06, CFI = .993, RMSEA = .033, SRMR = .025$ . Demographic variables' covariances with each other were set to zero, since they had nonsignificant and nearing 0 relation to each other. Gender and Age did not predict baseline scores on Mexican Orientation or linear change in Mexican Orientation. Generational status did not predict linear change in Mexican Orientation, but generational status did predict baseline Mexican Orientation scores, such that first generation immigrants were 1.13 units higher on baseline Spanish language ( $B = 1.13, p < .001$ ). The average baseline score on the Mexican orientation scale was 1.62, and there was significant variability in these scores across individuals at baseline. On average, scores on Mexican orientation increased by .03 a year, but this increase was not significant. Slopes vary significantly, suggesting that there were individual differences in the growth rate of Mexican orientation over time. There was a significant negative correlation between baseline scores and slopes,

however, indicating that those with higher Mexican orientation at the beginning of the study were most likely to experience decline over time. The results did not support Hypothesis 1, and Hypothesis 3 was partially supported with 1<sup>st</sup> generation immigrants having a higher initial status than U.S. born Mexican Americans.

### **American Orientation**

To examine changes in American orientation over five years, a latent growth curve model was tested. Based on visualization of data over time, and a seeming ceiling effect, a quadratic slope was also added to the data. The unconditional measurement model with the intercept, linear slope, and quadratic slope the fit was adequate  $\chi^2(6) = 7.25, p = .30, CFI = .997, RMSEA = .025, SRMR = .020$ . While the fit statistics are unusually high, the model was identified with more than the requisite number of indicators to estimate an intercept, linear slope, and quadratic slope (Acock, 2005). The conditional model with age, gender, and generational status added as covariates also fit the data well,  $\chi^2(15) = 17.51, p = .29, CFI = .994, RMSEA = .019, SRMR = .029$ . Demographic variables were set to be correlated with each other at zero. Age did not predict initial status in American Orientation. Gender and Generational status are associated with baseline scores on American Orientation, with Mexican American women rating .30 units higher men in American Orientation ( $B = .30, p < .01$ ) and first generation immigrants being .26 units below second generation immigrants in American Orientation ( $B = -.26, p < .01$ ). Gender, generational status, and age do not predict linear change or quadratic change over time. The average baseline score on the American Orientation scale was 4.74, and there was significant variability in these scores across individuals at baseline ( $p < .001$ ). On average, scores on American Orientation decreased

linearly by .34 a year, but this decrease was not significant. The quadratic growth in American orientation was .05 per year, but this increase was not significant. This indicates that for Mexican American emerging adults American Orientation does not significantly grow or change. Linear and quadratic slopes did not significantly vary, suggesting individual differences do not impact growth rate. There were not significant correlations between baseline scores and linear or quadratic slopes, indicating that starting point did not influence direction of growth. The results did not support Hypothesis 2, and partially supported Hypothesis 3, with 1<sup>st</sup> generation immigrants being less American culturally orientated than U.S. born Mexican Americans.

### **Discrimination**

The unconditional measurement model with a linear slope specified fit well  $\chi^2(10) = 12.39$ ,  $p = .26$ , CFI = .995, RMSEA = .023, SRMR = .052. While the fit statistics are unusually high, the model was identified with more than the requisite number of indicators to estimate an intercept and linear slope (Acock, 2005). The conditional model with age, gender, and generational status added as covariates produced an adequate fit for CFI = .976, RMSEA = .037, SRMR = .042, but did not fit well  $X^2(444, 19) = 30.423$ ,  $p = .05$ . Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. The model fit improved with these specifications for the data to fit well,  $X^2(22) = 31.10$ ,  $p = .09$ , CFI = .981, RMSEA = .030, SRMR = .043. Gender, Generational Status, and Age did not predict average baseline score on the discrimination scale or linear change in discrimination over five years. The average baseline score on the discrimination scale was 2.84 ( $p < .05$ ), and there was significant variability in these scores across individuals

at baseline. On average, scores on the general discrimination scale increased by .05 each year, but this increase was not significant. Slopes did not significantly vary, suggesting that all individuals changed over time at approximately the same rate. There was a nonsignificant negative correlation between baseline scores and slopes, indicating that those across starting points of discrimination the rate of change in discrimination did not strongly differ. The fourth and fifth hypotheses was rejected in this case, as discrimination did not grow over time and generational status did not predict intercept or growth in discrimination.

### **Internalizing**

The unconditional measurement model with a linear slope specified fit well  $\chi^2(10) = 16.32, p = .09, CFI = .981, RMSEA = .039, SRMR = .052$ . The conditional model with age, gender, and generational status added as covariates fit the data well,  $\chi^2(22) = 27.22, p = .20, CFI = .985, RMSEA = .023, SRMR = .042$ . Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. Generational status and age did not predict baseline psychological distress or linear change in psychological distress. Gender did not predict linear change in psychological distress, but gender did impact psychological distress such that women were .18 higher in their baseline psychological distress. The average baseline score on the internalizing scale was .39, and there was significant variability in these scores across individuals at baseline. On average, scores on the internalizing linearly decreased by .06 each year, but this decreased was not significant. Slopes vary significantly, suggesting that there were individual differences in growth rate in internalizing. There was not a significant negative correlation between baseline scores



and slopes, however, but there was a trend indicating that higher internalizing baseline scores were more likely to experience decline over time.

### **Externalizing**

The unconditional measurement model for externalizing behaviors with a linear slope and quadratic slope specified fit well,  $\chi^2(6) = 1.97, p = .92, CFI = 1.00, RMSEA = .00, SRMR = .011$ . While the fit statistics are unusually high, the model was identified with more than the requisite number of indicators to estimate an intercept, linear slope, and quadratic slope (Acock, 2005). The conditional model with age, gender, and generational status added as covariates also fit the data well,  $\chi^2(15) = 5.79, p = .98, CFI = 1.00, RMSEA = .000, SRMR = .011$ . Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. Age does not predict initial status, linear change, or quadratic change in externalizing frequency. Generational status was not associated with initial status, linear change, or quadratic change in externalizing behaviors. Generational status does not predict linear change or quadratic change in externalizing behavior frequency. Gender predicts baseline externalizing behavior frequency, such that men were .28 units higher initial frequency of externalizing than women. Gender does not predict linear change or quadratic change in externalizing behaviors. The average baseline score on the externalizing was -.081, and there was significant variability in these scores across individuals at baseline. On average, linear change in scores on externalizing behavior frequency decreased by .12 a year, but this decrease was not significant. On average, quadratic change in scores in externalizing behavior frequency increased by .04 units a year, but this slope was not significant. Linear and quadratic slopes significantly varied,

suggesting that individual differences in both linear and quadratic growth rate. Initial status is negatively correlated with linear change, such that individuals that have higher initial status tend to decrease in externalizing behavior over time. Initial status was not correlated with quadratic change over time.

### **Parallel Process Models With Internalizing and Externalizing Regressed on Mexican Orientation**

More extensive tables for each of the latent regressions can be found in Supplemental Materials. Table 3 corresponds with each mental health parameter regressed on Mexican orientation.

#### **Internalizing**

To examine how Mexican orientation predicted Internalizing symptoms over time, a parallel process model was estimated. The intercept and linear slope of Mexican orientation and intercept and linear slope of psychological distress were estimated, as well as the betas for linear change in psychological distress regressed on initial status and linear slope of Mexican orientation. The betas for baseline in psychological distress regressed on the baseline in Mexican orientation also was estimated. A covariance between initial status and linear change in Mexican orientation was included. Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. The model with gender, generational status, and age included as covariates fit well,  $\chi^2(N = 62) = 81.40, p = .05$ , CFI = .989, RMSEA = .026, SRMR = .045. These results partially supported Hypothesis 11, as initial status in Mexican orientation was negatively associated with linear growth in internalizing symptoms ( $B = -.02, p < .01$ ), indicating that being high in Mexican

orientation at baseline is associated with lower internalizing symptoms. Linear change in Mexican orientation did not impact linear growth in internalizing symptoms. These results partially supported Hypothesis 6.

### **Externalizing**

To examine how Mexican orientation predicted externalizing behavior over time, a parallel process model was estimated. The intercept and linear slope of Mexican orientation and intercept, linear slope, and quadratic slope of externalizing behavior frequency were estimated, as well as the betas of linear change in externalizing behavior regressed on initial status and linear slope of Mexican orientation. The betas for baseline in externalizing behavior frequency and baseline in Mexican orientation was also estimated. Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. The model with gender, generational status, and age included as covariates fit well,  $\chi^2(N = 55) = 57.43, p = .39, CFI = .999, RMSEA = .010, SRMR = .022$ . Initial Status in Mexican orientation were not associated with baseline or linear change in externalizing behavior frequency. These results partially supported Hypothesis 7, as linear change in Mexican orientation negatively predicted linear change in externalizing behavior frequency ( $B = -.32, p < .01$ ), such that individuals that were growing in Mexican orientation over time had smaller growth in externalizing frequency.

## **Parallel Process Models With Internalizing and Externalizing Regressed on American Orientation**

More extensive tables for each of the latent regressions can be found in Supplemental Materials. Table 4 corresponds with each mental health parameter regressed on American orientation.

### **Internalizing**

To examine how American orientation predicted Internalizing symptoms over time, a parallel process model was estimated. The intercept, linear slope, and quadratic slope of American orientation and intercept and linear slope for Internalizing were estimated, as well as the betas for linear change in internalizing symptoms regressed on initial status and linear slope of American orientation. The betas for baseline in internalizing symptoms regressed on baseline in American orientation also were estimated. Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. There was a covariance estimated between baseline internalizing symptoms and linear change in American orientation. Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. The model with gender, generational status, and age included as covariates fit well,  $\chi^2(N = 54) = 61.80, p = .21, CFI = .990, RMSEA = .018, SRMR = .043$ . Initial status and linear change in American orientation were not associated with initial status or linear change internalizing symptoms. American orientation was essentially unrelated to psychological distress, thereby not supporting Hypothesis 8.

## Externalizing

To examine how American orientation predicted externalizing behavior frequency over time, a parallel process model was estimated. The intercept, linear slope, and quadratic slope of American orientation and intercept, linear slope, and quadratic slope for externalizing behavior frequency were estimated, as well as the betas for linear change in externalizing behavior frequency regressed on initial status and linear slope of American orientation. The betas for baseline in externalizing behavior frequency regressed on baseline in American orientation also were estimated. There was a covariance estimated between baseline externalizing behavior frequency and linear change in American orientation. Gender, Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. When age and gender were included they were identified as variables causing nonpositive definite errors, so these variables were removed. Age and gender had errors and were removed from the model after nonconvergence had errors listing each having nonpositive errors. The model with gender, generational status, and age included as covariates fit adequately,  $\chi^2(N = 44) = 82.62, p = .00, CFI = .959, RMSEA = .044, SRMR = .091$ . Initial Status and linear change in American orientation did not significantly predict linear change in externalizing behavior frequency. Initial status in American orientation also did not predict initial status in externalizing behavior frequency. These results did not support Hypothesis 9.

## **Parallel Process Models With Internalizing and Externalizing Regressed on Perceived Police Discrimination**

More extensive tables for each of the latent regressions can be found in Supplemental Materials. Table 4 corresponds with each mental health parameter regressed on discrimination.

### **Internalizing**

To examine how Discrimination predicted Internalizing symptoms over time, a parallel process model was estimated. To improve fit the errors of internalizing symptoms in baseline year and year 2 were correlated, and the errors of discrimination in year 1 and year 2 were correlated. The intercept and linear slope of discrimination and intercept and linear slope of internalizing were estimated, as well as the betas for linear change in internalizing regressed on initial status and linear slope of discrimination. The betas for baseline in internalizing symptoms regressed on baseline in discrimination were also estimated. Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. The model with gender, generational status, and age included as covariates fit well,  $\chi^2(N = 61) = 74.13, p = .12, CFI = .986, RMSEA = .022, SRMR = .041$ . Initial status in Discrimination was positively associated with baseline Internalizing symptoms ( $B = .13, p < .01$ ). Linear change in Internalizing was not associated with initial status in discrimination or change in discrimination over time. These results partially support Hypothesis 10.

### **Externalizing**

To examine how Discrimination predicted externalizing behavior frequency over time, a parallel process model was estimated. The intercept and linear slope of

discrimination and intercept and linear slope of externalizing behavior frequency were estimated, as well as the betas for linear change in externalizing behavior frequency regressed on initial status and linear slope of discrimination. The betas for baseline in externalizing behavior frequency regressed on baseline in discrimination were also estimated. Generational Status, and Age were uncorrelated, so the correlations between these demographic factors were constrained to zero to improve fit. The model with gender, generational status, and age included as covariates fit adequately,  $\chi^2(48) = 51.73$ ,  $p = .33$ , CFI = .996, RMSEA = .013, SRMR = .035. Initial Status in Discrimination positively predicted initial status in externalizing behavior ( $B = .26$ ,  $p < .05$ ). Initial status and linear status did not significantly predict linear growth in externalizing behavior frequency. These results partially support Hypothesis 11.

### **Moderation Analyses**

More extensive tables for each of the moderations can be found in Supplemental Materials. Table 18 corresponds with the moderating impact of American orientation on the relationship between Mexican acculturation growth parameters and linear growth in internalizing and externalizing symptoms. Table 19 corresponds with Mexican acculturation moderating the relationship between perceived police discrimination and internalizing and externalizing symptoms. Table 20 corresponds with American acculturation moderating the relationship between perceived discrimination and internalizing and externalizing symptoms.

Moderator analyses indicate that initial status in Mexican orientation did not significantly moderate the relationship between initial status in discrimination and linear growth in internalizing symptoms, nor did it moderate the relationship between baseline

discrimination and linear growth in externalizing behaviors. Initial status in Mexican orientation significantly moderated the relationship between linear change in discrimination and linear growth in internalizing ( $B = -1.05, p < .01$ ). Table 23 displays the simple slopes to illustrate that high levels of baseline Mexican acculturation reduce the negative impact of linear growth of perceived police discrimination on linear growth in internalizing symptoms. Peculiarly, high levels of growth in Mexican orientation appear to significantly moderate the relationship between initial status in perceived police discrimination and linear growth in internalizing symptoms ( $B = 1.06, p < .05$ ) in a direction contrary to expectation. Table 24 indicates through simple slopes how at high levels of linear growth in Mexican orientation the impact of baseline perceived police discrimination on linear growth in internalizing symptoms is exacerbated. This may be due to the negative correlation between initial status in Mexican orientation and linear growth in Mexican orientation, such that the individuals who are growing most are also those who initially had the lowest level of Mexican orientation. These results offer partial support of Hypothesis 12.

Mexican orientation growth parameters did not moderate the impact of perceived discrimination growth parameters on linear growth in externalizing behaviors over time. These results do not support Hypothesis 12.

Moderator analyses also indicated that initial status in American orientation did not significantly moderate the relationship between discrimination and linear growth in internalizing symptoms, nor did it moderate the relationship between baseline discrimination and linear growth in externalizing behaviors. Table 25 displays the significant moderating effect of linear growth in American acculturation on the



relationship between initial status in perceived police discrimination and growth in internalizing symptoms ( $B = 2.24, p < .05$ ). Simple slopes analysis indicates that at high levels of linear growth in American orientation the deleterious relationship between initial status in perceived police discrimination on linear growth in internalizing symptoms is exacerbated. This results do not support Hypothesis 13.

American orientation growth parameters did not moderate the impact of perceived discrimination growth parameters on linear growth in externalizing behaviors over time, also not supporting Hypothesis 13.

The moderating impact of American orientation growth parameters on the relationship between Mexican acculturation growth parameters and linear growth in internalizing symptoms and externalizing behaviors, respectively, were modeled to evaluate Hypothesis 14. Initial status of American orientation significantly moderated the relationship between initial status in Mexican orientation and linear growth in internalizing symptoms ( $B = -.01, p < .05$ ). Simple slopes analysis in Table 21 display the interaction between initial status of both Mexican and American orientation significantly moderated linear growth in internalizing, such that as baseline level of American acculturation grows, the ameliorative effect of Mexican acculturation on linear growth in internalizing is amplified. This supports the biculturalist perspective that high levels of American orientation in concert with high levels of Mexican orientation leads to better wellbeing. This provides promising support for Hypothesis 14.

Linear growth in American orientation also moderated the relationship between initial status in Mexican orientation and linear growth in internalizing symptoms ( $B =$

-1.10,  $p < .05$ ). Simple slopes analysis in Table 22 demonstrate that at high levels of linear growth in American orientation, the ameliorative effect of initial status in Mexican orientation on linear growth in internalizing is amplified. This similarly provides evidence for the biculturalist view of bidimensional acculturation that suggests that at high American orientation amplifies the positive effect of Mexican acculturation on wellbeing, supporting Hypothesis 14.

American orientation growth parameters did not moderate the impact of Mexican orientation growth parameters on linear growth in externalizing behaviors over time, not supporting Hypothesis 14.

Within the interactions between linear change in Mexican orientation or linear change in American orientation, conclusions cannot be made because of nonconvergence issues. Similarly, interactions between linear growth parameters for both Mexican orientation and perceived police discrimination predicting linear growth in internalizing and externalizing, as well as interactions between linear growth parameters for American orientation and perceived police discrimination predicting internalizing and externalizing were not able to be completed. Issues with nonconvergence in latent growth curve model moderation analyses are common when attempting to calculate interactions between change parameters with samples smaller than 500 with nonnormal data (Wen, Marsh, Hau, Wu, Liu, & Morin, 2014).

## DISCUSSION

Hispanic psychological research has rarely involved longitudinal analysis of bidirectional acculturation or evaluated the protracted consequences of perceptions of police related discrimination (Sam & Berry, 2010). Acculturation is a developmental process that includes the growth, stability, rejection, or dissipation of orientation towards host and country of origin culture. Longitudinal analysis of acculturation measured bidimensionally, and its impact on mental health, provides the opportunity to test assimilationist and biculturalist theories, and provide further evaluation of the immigrant paradox. Additionally, investigation of how perceived discrimination impacts a broad spectrum of mental health immediately and over time allows for better understanding of this chronic stressor.

The process of acculturation and impact of mental health is more complicated and nuanced than is represented in the literature. There is a great deal of heterogeneity in baseline levels of acculturation, as well as a large degree of variability in growth. Each factor also seems to grow and maintain independent to the other, indicating orthogonality among Mexican and American acculturation. Mexican Americans do not all decrease in their adherence or identity in Mexican culture over time, and on average maintain the same level of Mexican orientation through emerging adulthood. Similarly, Mexican Americans do not drastically increase in their adherence or identity in American culture, and on average maintain the same level of “Americanness” through emerging adulthood. This pattern of development in acculturation points to the importance of individual differences in starting point and development of acculturation, and may point to researchers continuing to turn their attention to the societal, contextual, and familial

contributors to maintenance, growth, and decline of Mexican and American cultural identity.

Contrary to assimilationist perspectives, and consistent with biculturalist theory, Mexican orientation was important for predicting less internalizing and externalizing symptoms, even after controlling for generational status. This pattern was specific to the aspect of mental health Mexican acculturation was predicting. Higher initial levels of Mexican orientation were important for predicting less psychological distress, while growth in Mexican orientation was key for predicting less growth in maladaptive behaviors. Mexican orientation here presents as protective against behavioral problems through emerging adulthood for adjudicated Mexican Americans. These results extend previous findings that indicated that initial status in Mexican acculturation predicted a lower slope in drug and substance use, by also indicating that individual growth in Hispanic acculturation predicts a smaller growth in use (Unger et al., 2015). Contrary to view of assimilation and Americanization being the most adaptive approach for immigrants, the results indicate that adhering to heritage culture values and identity has protective effects for adjudicated Mexican American youth. Additionally, this extends the underlying point found in the “immigrant paradox” that suggests that Mexican orientation and identity acts as a buffer against poor mental health outcomes, using a dimensional measure instead of a proxy. That this effect was found within this sample of adjudicated Mexican American emerging adults points to the generalizability of this sample to other Mexican Americans and Hispanics since the effect found in the literature is found here. This has key implications for how to approach reducing internalizing symptoms and externalizing behaviors. Educating and encouraging Mexican American heritage,

recognizing important Mexican values, and promoting Mexican American community are key avenues for improving wellbeing and desistance of externalizing behaviors.

Again, contrary to the assimilationist point of view, neither baseline nor growth in American Orientation were associated with growth or decreases in psychological distress or externalizing behaviors. These results put into question the cultural learning position that gaining facility in English proficiency and American social rules is the most important or single contributor to better mental health through reducing the amount of stress experienced in American society. This result also challenges the idea that individuals that do assimilate will in some way become more “productive” members of society and reduce any criminal behavior. Importantly, this challenges the ways in which education may be informed by the cultural learning approach that skews towards forcing adjudicated youth to assimilate, or viewing their externalizing behaviors as a symptom of not engaging in American culture enough (Sam & Berry, 2010).

The interaction of level of Mexican acculturation with American acculturation combined to provide some support for the biculturalist position. For individuals with average or high American orientation, the protective effect of Mexican orientation on internalizing symptoms was increased, whereas if American orientation was low the protective effect of Mexican orientation was nullified. The ability to integrate strengths from American and Mexican culture and the benefits of flexibly being able to navigate multiple contexts at home and in the community, appear to be ameliorative for psychological distress. While American cultural immersion does not appear to reduce growth in internalizing symptoms independently, individuals with strong understanding and adherence to Mexican cultural orientation and high American orientation are the

most protected. Additional support for the biculturalist perspective is found in the moderating impact of linear growth in American Orientation on the relationship between baseline Mexican orientation and linear growth in internalizing symptoms. The significant interaction indicates that for Mexican American emerging adults growing in American orientation can capitalize on the buffering effects of strong Mexican American identities to experience less internalizing symptoms. These results point to previous research on cultural competence, indicating that in the presence of high Mexican orientation, high American cultural competence and experience is ameliorative of stress (Torres & Rollock, 2007).

Although the impact of generational status must be taken tentatively in this paper because of small sample size, first-generation immigrants reported higher initial Mexican orientation and lower initial American orientation than second generation or later Hispanics. Interestingly this did not extend to an impact on generational status on growth or decline of either Mexican or American orientation. While generational status is important in understanding the point at which Mexican Americans begin on the spectrum of heritage culture adherence and host culture immersion, it does not appear to be informative for explaining how development in each dimension progresses over time. Additionally, generational status did not interact with Mexican acculturation to predict growth in internalizing or externalizing symptoms. The impact of generational status on internalizing and externalizing symptoms also appears to be accounted for by Mexican acculturation when they are both included as predictors of mental health, as generational status stops being a significant predictor of distress while Mexican acculturation continues to significantly predict mental health outcomes. Again, though the sample size

of first generation immigrants is small, this result may indicate that the bidimensional construct of acculturation may have more explanatory power for predicting mental health than a proxy measure like generational status.

Perceived police discrimination had important relationships with internalizing and externalizing symptoms, although hypotheses were not supported. Greater perception of initial status in discrimination predicted greater baseline internalizing symptoms and externalizing behavior for adjudicated Mexican American adolescents. Discrimination has a broad nonspecific concurrent effect on the spectrum of mental health and behavior problems. Contrary to hypotheses, discrimination did not grow or accumulate over time, and growth in discrimination did not predict growth in internalizing and externalizing symptoms for adjudicated Mexican American adolescents. Perceived police discrimination, while a chronic and prevalent stressor, may carry a consistent weight once perceptions are developed of the biased nature of police.

Utilizing latent growth curve analyses and growth parameters in moderation analyses provides the opportunity to investigate questions regarding acculturation, discrimination, and mental health with more nuance. These statistical approaches also provide the opportunity to challenge theories on acculturation's relationship with mental health in ways that can inform education and training for Mexican American emerging adults and the helping professionals invested in reducing distress and behavioral problems. The results indicate that additional attention should be invested in fostering pride in cultural heritage and values for Mexican American emerging adults as a means of reducing problematic behaviors and distress. They also indicate that research should continue to examine acculturation through bidimensional lens when investigating mental

health questions. Bidimensional acculturation provides nuance and individual differences in the developmental process of acculturating to the receiving culture. Finally, the results indicate perceived discrimination is an important stressor for Hispanic that contributes to concurrent internalizing and externalizing problems, and suggest more research be done understanding the mechanisms by which discrimination impacts maladaptive behavior.

### **Limitations and Future Directions**

While findings indicate ameliorative benefits from growth in Mexican orientation predicting less internalizing and externalizing symptoms, understanding what impacts growth in Hispanic acculturation requires additional research. For both Mexican Acculturation and American Acculturation, the mechanisms at play in baseline orientation and growth in each area were unclear, and the heterogeneity in trajectories of growth and initial statuses complicated evaluation of what dictates growth. Further research is needed to understand what social supports, education, family status, or demographic variables impact growth in Mexican orientation. Research should seek to investigate how pride in one's culture of origin and maintaining those culture bonds can be promoted or encouraged, whether that is in the family context, at school, or as part of the curriculum given to adjudicated youth.

Additionally, more research into how immigrant status impacts perceived discrimination and mental health is necessary. While this study had preliminary evaluations of this relationship, the sample size of first generation immigrants was small, and larger numbers allowing for multigroup/measurement invariance evaluations are necessary to make strong conclusions regarding how generational status impacts discrimination, acculturation, and mental health.



Future studies can also leverage statistical sophistication to answer questions not addressed within this study. The research on alcohol use, substance use, and criminal offending indicate that there are latent classes of trajectories from adolescence through adulthood for these externalizing behaviors. Understanding how minority status and cultural variables impact the trajectories of these latent classes and membership within these latent classes are important future investigations (Losoya et al., 2008). Additionally, better powered samples may be able to continue the investigation of how change in each dimension of acculturation interacts to predict change in mental health using latent growth parameters. While this study was not able to investigate these questions because of nonconvergence issues, a more rigorous test of the bicultural perspective is possible through analysis of how growth in American acculturation concurrent with maintenance of heritage culture impacts internalizing and externalizing trajectories.

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## APPENDIX A

Table 1  
Means, Standard Deviations, and Zero-Order Correlations Among Baseline Through Year 4 of Internalizing Symptoms, Externalizing Behaviors, Mexican Acculturation, American Orientation, and Perceived Police Discrimination

Variable	M(SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1. Age	16.01	1.00																					
2. Gender	0.12	.03	1.00																				
3. Immigrant Status	0.16	.02	-.02	1.00																			
4. Psychological Distress 0	.44(.52)	-.04	.23*	-.01	1.00																		
5. Psychological Distress 1	.42(.51)	-.01	.15*	-.05	.50**	1.00																	
6. Psychological Distress 2	.42(.49)	.02	.15*	.02	.32**	.48**	1.00																
7. Psychological Distress 3	.38(.47)	.03	.14*	-.07	.45**	.54*	.54*	1.00															
8. Psychological Distress 4	.40(.47)	.00	.09	.03	.33**	.34**	.38*	.54*	1.00														
9. Perceived Police Discrimination 0	2.67(.75)	.07	-.06	-.06	.10	-.08	.09	.05	.01	1.00													
10. Perceived Police Discrimination 1	2.63(.76)	.04	-.04	.00	.05	.18*	.13*	.08	.11	.41**	1.00												
11. Perceived Police Discrimination 2	2.63(.74)	-.02	-.14*	-.08	.08	.12*	.24**	.17*	.15*	.37**	.52**	1.00											
12. Perceived Police Discrimination 3	2.63(.74)	.05	.00	-.10	.19*	.16*	.18*	.21*	.11	.37**	.41**	.40**	1.00										
13. Perceived Police Discrimination 4	2.61(.76)	.06	-.07	-.04	.08	.16*	.14*	.15*	.09	.32**	.41**	.41**	.41**	1.00									
14. Mexican Orientation 0	4.22(.78)	.06	-.08	.38*	-.03	-.16*	.01	-.24*	-.21*	-.03	.00	-.04	-.03	-.05	1.00								
15. Mexican Orientation 1	4.24(.82)	.09	-.04	.35*	-.01	-.07	.04	-.24*	-.18*	-.07	.00	-.09	-.02	-.05	.85*	1.00							
16. Mexican Orientation 2	4.27(.78)	.06	-.05	.30*	-.04	-.13	.02	-.20*	-.22*	-.08	.02	-.07	-.03	-.10	.78*	.80*	1.00						
17. Mexican Orientation 3	4.22(.76)	.01	-.10	.38**	-.04	-.07	.03	-.18*	-.17*	-.06	.04	-.02	.00	.02	.73*	.74*	.74*	1.00					
18. Mexican Orientation 4	4.23(.80)	.06	-.10	.32**	-.02	-.13	-.03	-.16*	-.15*	-.05	-.03	.07	-.05	-.07	.73*	.73*	.73*	.81*	1.00				
19. Anglo Orientation 0	2.60(1.28)	-.05	.15*	-.14*	.07	-.01	.01	.07	.08	-.12*	-.08	-.03	-.16*	-.05	-.03	-.08	-.05	-.10	-.14*	1.00			
20. Anglo Orientation 1	2.61(1.30)	-.09	.17*	-.23*	.08	.01	.05	.01	.10	-.03	-.06	-.08	-.06	-.01	-.13*	-.07	-.07	-.15*	-.19*	.46*	1.00		
21. Anglo Orientation 2	2.72(1.33)	-.04	.16*	-.20*	.03	-.01	.10	.02	.00	-.03	-.08	-.05	-.01	.05	-.06	-.04	.11	-.02	-.09	.36*	.51*	1.00	
22. Anglo Orientation 3	2.67(1.35)	.09	.20*	-.14*	.15*	.12	.13	.14	.09	.02	-.01	-.01	.03	.06	-.14*	-.12*	-.11	-.01	-.09	.39*	.45*	.52*	1.00
23. Anglo Orientation 4	1.50(.62)	-.03	.16*	-.20*	.03	.02	.11	.07	.10	.07	.04	.04	.07	-.03	-.11	-.09	-.06	-.09	-.06	.33*	.44*	.40*	1.00
24. Drinking Frequency 0	11.79(25.15)	.03	-.06	-.03	.05	-.08	-.05	-.14*	.03	.10	.00	-.02	-.01	-.02	-.13*	-.14*	-.11	-.09	-.04	-.08	.03	-.02	1.00
25. Drinking Frequency 1	12.16(21.87)	.04	-.05	-.03	-.05	-.02	.03	.01	.17*	.08	.06	.11*	.02	-.10	-.16*	-.18*	-.18*	-.11	-.10	-.07	-.03	-.08	1.00
26. Drinking Frequency 2	13.80(23.44)	-.02	-.05	-.13*	-.02	-.10	.03	.01	.01	.12*	.05	.10	.04	.05	-.13*	-.15*	-.16*	-.18*	-.15*	-.08	.02	-.03	1.00

(table continues)



Variable	M(SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
27. Drinking Frequency 3	16.04(27.18)	.01	-.06	-.07	.01	-.05	-.01	.08	.14*	.04	.01	.11*	-.01	.01	-.13*	-.18*	-.17*	-.19*	-.17*	-.13*	-.04	-.11
28. Drinking Frequency 4	19.00(33.56)	-.04	-.05	.01	.05	.02	-.03	.02	.13*	.03	.03	.06	-.08	.08	-.12*	-.18*	-.19*	-.24*	-.23*	-.03	-.02	-.13*
29. Drugs Frequency 0	.65(1.25)	-.01	-.07	.10	.15*	.01	.04	-.03	.05	.13*	.08	.08	.02	.07	-.08	-.08	-.10	-.11	-.03	-.04	.06	-.07
30. Drugs Frequency 1	.55(.87)	.03	.04	-.16*	.15*	.18*	.10	.14*	.11	.12*	.03	.09	.09	.06	-.13*	-.16*	-.15*	-.17*	-.13*	-.06	.10	-.07
31. Drugs Frequency 2	.66(1.06)	-.03	.03	-.13*	.14*	.16*	.18*	.14*	.10	.11*	.12*	.14*	.19*	.11*	-.15*	-.12*	-.18*	-.13*	-.10	-.11	-.01	-.05
32. Drugs Frequency 3	.62(.99)	-.02	.03	-.10	.15*	.10	.20	.26**	.21**	.14*	.10	.21**	.15*	.09	-.11	-.13*	-.13*	-.21*	-.16*	-.11	-.01	-.07
33. Drugs Frequency 4	.55(.95)	-.06	-.02	-.06	.17*	.12	.07	.16*	.24**	.10	.06	.09	.04	.04	-.08	-.13*	-.14*	-.20*	-.18*	-.05	.04	-.08
34. Criminal Offending 0	.06(.10)	-.05	-.14*	-.06	.23**	.15*	.01	.03	.13*	.14*	.07	.09	.04	.12*	-.03	-.01	-.03	-.01	.01	-.11	-.08	-.08
35. Criminal Offending 1	.04(.09)	-.05	-.10	-.07	.19**	.17*	.09	.07	.11	.10	.07	.11*	.05	.01	-.06	-.08	-.10	.00	.03	-.21*	-.05	-.10
36. Criminal Offending 2	.05(.09)	-.06	-.08	-.12*	.07	.14*	.15*	.04	.06	.10	.05	.14*	.08	.05	-.06	-.05	-.10	-.08	-.04	-.18*	-.09	-.15*
37. Criminal Offending 3	.05(.10)	-.02	-.14*	-.13*	.18*	.07	.15*	.14*	.18*	.05	.00	.12*	.06	.00	-.08	-.08	-.08	-.11	-.08	-.11	-.07	-.15*
38. Criminal Offending 4	.04(.08)	-.03	-.13*	-.12*	.07	.11	.01	.08	.15*	.05	.01	.03	.06	.08	-.06	-.07	-.11	-.13*	-.06	-.13*	-.04	-.13*
39. Externalizing 0	.00(.74)	.01	-.13	-.09	.16	.03	.02	-.03	.11	.14	.06	.06	.01	.10	-.09	-.08	-.07	-.09	-.03	-.08	.03	-.03
40. Externalizing 1	.00(.72)	.02	-.06	-.11	.13	.13	.14*	.12	.19*	.15*	.07	.14*	.10	.07	-.13	-.17*	-.17*	-.10	-.09	-.13	.02	-.10
41. Externalizing 2	.00(.77)	-.02	-.07	-.16*	.08	-.11	.18*	.09	.04	.13	.10	.17*	.17*	.10	-.08	-.08	-.13	-.08	-.05	-.15*	-.07	-.10
42. Externalizing 3	.00(.76)	.00	-.09	-.13	.14*	.06	.15*	.19*	.19*	.09	.06	.17*	.06	.04	-.10	-.14*	-.12	-.18*	-.14*	-.14*	-.06	-.14*
43. Externalizing 4	.00(.74)	-.07	-.10	-.06	.13	.13	.04	.13	.23*	.05	.02	.06	-.03	.03	-.09	-.14*	-.16*	-.20*	-.15*	-.09	-.02	-.16*

(table continues)

Variable	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
22. Anglo Orientation 3	1.00																					
23. Anglo Orientation 4	.38*	1.00																				
24. Drinking Frequency 0	-.08	-.04	1.00																			
25. Drinking Frequency 1	-.07	.04	.45*	1.00																		
26. Drinking Frequency 2	-.12	.04	.34*	.48*	1.00																	
27. Drinking Frequency 3	-.11	-.06	.22*	.40*	.53*	1.00																
28. Drinking Frequency 4	-.08	-.06	.29*	.32*	.37*	.54*	1.00															
29. Drugs Frequency 0	-.09	.00	.48*	.23*	.23*	.15*	.18*	1.00														

(table continues)

Variable	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
30. Drugs Frequency 1	-.04	.05	.32*	.44*	.28*	.19*	.18*	.48*	1.00															
31. Drugs Frequency 2	-.06	.03	.19*	.25*	.44*	.25*	.17*	.39*	.48*	1.00														
32. Drugs Frequency 3	-.09	.03	.17*	.21*	.32*	.42*	.26*	.39*	.47*	.49*	1.00													
33. Drugs Frequency 4	-.05	-.01	.22*	.19*	.28*	.35*	.48*	.33*	.31*	.42*	.54*	1.00												
34. Criminal Offending 0	-.20*	-.06	.30*	.06	.12	.07	.13*	.42*	.24*	.21*	.24*	.23*	1.00											
35. Criminal Offending 1	-.14*	.00	.26*	.29*	.19*	.14*	.13*	.24*	.37*	.30*	.27*	.21*	.45*	1.00										
36. Criminal Offending 2	-.21*	.00	.09	.18*	.32*	.12	.13*	.20*	.31*	.56*	.29*	.22*	.33*	.45*	1.00									
37. Criminal Offending 3	-.15*	.00	.12	.16*	.26*	.31*	.22*	.22*	.27*	.34*	.55*	.35*	.33*	.40*	.42*	1.00								
38. Criminal Offending 4	-.15*	-.03	.09	.07	.13*	.28*	.31*	.16*	.14*	.22*	.34*	.44*	.29*	.29*	.34*	.46*	1.00							
39. Externalizing 0	-.12	-.05	.64*	.22*	.23*	.12*	.19*	.76*	.38*	.32*	.30*	.30*	.77*	.41*	.25*	.28*	.20*	1.00						
40. Externalizing 1	-.07	.05	.45*	.69*	.39*	.29*	.26*	.42*	.74*	.43*	.41*	.31*	.35*	.74*	.39*	.38*	.23*	.47*	1.00					
41. Externalizing 2	-.16*	.02	.22*	.32*	.64	.29*	.21*	.33*	.42*	.81*	.41*	.34*	.27*	.40*	.81*	.43*	.27*	.32*	.49*	1.00				
42. Externalizing 3	-.15*	-.01	.19*	.27*	.42*	.63*	.36*	.31*	.37*	.42*	.79*	.48*	.27*	.36*	.36*	.81*	.48*	.30*	.44*	.47*	1.00			
43. Externalizing 4	-.11	-.03	.23*	.18*	.27*	.43*	.68*	.28*	.24*	.31*	.46*	.78*	.29*	.27*	.28*	.46*	.76*	.30*	.33*	.32*	.56*	1.00		

Table 2

*Unconditional Latent Growth Curve Models for Internalizing Symptoms, Externalizing Behaviors, Mexican Orientation, American Orientation, and Perceived Police Discrimination*

	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR
Internalizing	16.32	10	0.981	0.039	0.052
Discrimination	12.39	10	0.995	0.023	0.052
Mexican Orientation	18.58	10	0.994	0.051	0.026
American Orientation	7.25	6	0.997	0.025	0.02
Externalizing	1.97	6	1	0	.011

*Note.*  $p < .05$ .

Table 3

*Latent Growth Curve Conditional Models for Internalizing Symptoms, Externalizing Behaviors, Mexican Orientation, American Orientation, and Perceived Police Discrimination With Demographic Variables as Covariates*

	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	IS	IS Variance	LC	LC Variance	Quadratic Slope	Quadratic Variance	IS X LC Covariance
Internalizing	27.22	22	0.985	0.023	0.042	.39*	.04*	-.06	0*			-.0003
Discrimination	31.10	22	0.981	0.03	0.043	3.16	.25*	-.05	.01			-.01
Mexican Orientation	33.00	22	0.993	0.033	0.025	1.62*	.80*	.03	.02*			-.03*
Anglo Orientation	17.51	15	0.994	0.019	0.029	4.74*	.15*	-.34	.05	.05	.00	0
Criminal Offending	18.31	15	0.99	0.022	0.023	0.11*	0*	.00	0*	0	0	0

*Note.* *df* = degrees of freedom; IS = Initial Status; LC = Linear Change. *p* < .05.

Table 4

*Demographic Association With Latent Growth Parameters of Internalizing Symptoms, Externalizing Behaviors, Mexican Acculturation, English Acculturation, and Perceived Police Discrimination*

	Parameter	Age	Gender	Generational Status
Internalizing	IS	-.01	.18*	.00
	LC	.00	-.02	.00
Discrimination	IS	.03	-.13	-.10
	LC	.00	.00	-.01
Mexican Orientation	IS	.08	-.25	1.13*
	LC	.00	-.02	.00
American Orientation	IS	-.04	.30*	-.26*
	LC	.02	.02	-.04
Externalizing	IS	.04	-.13*	-.16*
	LC	-.10	.01	.02

*Note.* Gender: 0 = Male, 1 = Female; Generational Status: 0 = U.S.; Born, 1 = 1st Generation; IS = Initial Status; LC = Linear Change.

\* $p < .05$ .

Table 5

*Unconditional Latent Growth Model Parameter Estimates of Change in Mexican Orientation*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	3.00	.06		.00
Slope	.03	.01		.03
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.97	.08		.00
Slope	.02	.00		.00
IS U S Covariance	-.03	.01		.01
<u>Measurement Errors</u>				
E0	.11	.02		.00
E1	.21	.02		.00
E2	.31	.03		.00
E3	.28	.03		.00
E4	.23	.04		.00

*Note.*  $p < .01$  for all unstandardized estimates.

Table 6

*Conditional Model Parameter Estimates for the Final Latent Growth Model of Change in Mexican Orientation*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	1.62	.76		.03
Slope	.03	.17		.87
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.80	.07		.00
Slope	.02	.00		.00
IS U S Covariance	-.03	.01		.01
<u>Direct Effects</u>				
Gender → IS	-.25	.18		.16
Generational Status → IS	1.13	.15		.00
Age → IS	.08	.05		.10
Gender → LC	-.02	.04		.46
Generational Status → LC	.00	.03		.98
Age → LC	.00	.01		1.00

*(table continues)*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Measurement Errors</u>				
E0	.11	.02		.00
E1	.21	.02		.00
E2	.31	.03		.00
E3	.27	.03		.00
E4	.22	.03		.00

*Note.* Gender: 0 = Male, 1 = Female; Generational Status: 2nd Generational or Later = 0, 1st Generation = 1; IS = Initial Status; LC = Linear Change.

$p < .01$  for all unstandardized estimates.



Table 7

*Unconditional Latent Growth Model Parameter Estimates of Change in Anglo**Orientation*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Latent Growth Factor Mean</u>				
Initial Status	4.02	.03		.00
Linear Change	-.02	.01		.43
Quadratic Change	.02	.01		.01
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.17	.04		.00
Slope	.05	.03		.07
Quadratic Change	.00	.00		.23
IS U S Covariance	-.03	.03		.26
IS U Q Covariance	.00	.01		.55
<u>Measurement Errors</u>				
E0	.17	.04		.00
E1	.16	.02		.00
E2	.15	.02		.00
E3	.12	.01		.00
E4	.18	.03		.00

*Note.*  $p < .01$  for all unstandardized estimates.

Table 8

*Conditional Latent Growth Model Parameter of Change in Anglo Orientation*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	4.74	.45		.00
Linear Change	-.34	.42		.42
Quadratic Change	.05	.10		.59
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.15	.04		.00
Slope	.05	.03		.10
IS U S Covariance	.00	.00		.27
<u>Direct Effects</u>				
Gender → IS	.30	.18		.00
Generational Status → IS	-.26	.15		.00
Age → IS	-.04	.05		.11
Gender → LC	.02	.04		.80
Generational Status → LC	-.04	.03		.59

*(table continues)*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
Age → LC	.02	.01		.44
Gender → Q	-.01	.02		.72
Generational Status → Q	.01	.02		.54
Age → Q	.00	.01		.71
<u>Measurement Errors</u>				
E0	.78	.04		.00
E1	.15	.02		.00
E2	.15	.02		.00
E3	.12	.01		.00
E4	.17	.03		.00

*Note.* Gender: 0 = Male, 1 = Female; Generational Status: 2nd Generational or Later = 0, 1st Generation = 1; IS = Initial Status; LC = Linear Change.

*p* < .01 for all unstandardized estimates.

Table 9

*Unconditional Latent Growth Model Parameter Estimates of Change in Discrimination*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
<u>Latent Growth Factor Mean</u>				
Initial Status	3.35	.03		.00
Slope	.01	.01		.30
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.25	.03		.00
Slope	.01	.00		.10
IS U S Covariance	-.01	.01		.19
<u>Measurement Errors</u>				
E0	.34	.03		.00
E1	.31	.03		.00
E2	.30	.03		.00
E3	.33	.03		.00
E4	.32	.03		.00

*Note.*  $p < .01$  for all unstandardized estimates.

Table 10

*Conditional Latent Growth Model Parameter Estimates of Change in Discrimination*

Parameter	Unstandardized	SE	Standardized	p
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	2.84	.46		.00
Slope	.05	.14		.75
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.25	.03		.00
Slope	.01	.00		.10
IS U S Covariance	-.01	.01		.19
<u>Direct Effects</u>				
Gender → IS	-.13	.10		.18
Gender → LC	.00	.03		.89
Generational Status → IS	-.10	.09		.25
Generational Status → LC	-.01	.03		.80
Age → IS	.03	.03		.24
Age → LC	.00	.01		.81

*(table continues)*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Measurement Errors</u>				
E0	.34	.03		.00
E1	.31	.03		.00
E2	.30	.03		.00
E3	.33	.03		.00
E4	.32	.03		.00

*Note.* Gender: 0 = Male, 1 = Female; Generational Status: 2nd Generational or Later = 0, 1st Generation = 1; IS = Initial Status; LC = Linear Change.

*p* < .01 for all unstandardized estimates.

Table 11

*Unconditional Latent Growth Curve Model Parameter Estimates of Change in Internalizing*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	.30	.01		.00
Slope	-.01	.01		.04
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.04	.01		.00
Slope	.00	.00		.01
IS U S Covariance	.00	.00		.03
<u>Measurement Errors</u>				
E0	.04	.01		.00
E1	.04	.00		.00
E2	.05	.01		.00
E3	.03	.00		.00
E4	.04	.01		.00

*Note.*  $p < .01$  for all unstandardized estimates.

Table 12

*Conditional Latent Growth Model Parameter Estimates of Change in Internalizing*

Parameter	Unstandardized	SE	Standardized	p
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	.39	.20		.05
Slope	-.06	.07		.39
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.04	.01		.00
Slope	.00	.00		.01
IS U S Covariance	.00	.00		.06
<u>Direct Effects</u>				
Gender → IS	.18	.04		.00
Generational Status → IS	.00	.04		.96
Age → IS	-.01	.01		.58
Gender → LC	-.02	.01		.09
Generational Status → LC	.00	.01		.91
Age → LC	.00	.00		.46

*(table continues)*



Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Measurement Errors</u>				
E0	.04	.01		.00
E1	.04	.01		.00
E2	.05	.01		.00
E3	.03	.00		.00
E4	.04	.01		.00

*Note.* Gender: 0 = Male, 1 = Female; Generational Status: 2nd Generational or Later = 0, 1st Generation = 1; IS = Initial Status; LC = Linear Change.

*p* < .01 for all unstandardized estimates.

Table 13

*Unconditional Latent Growth Model Parameter Estimates of Change in Externalizing*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
<u>Latent Growth Factor Mean</u>				
Initial Status	.01	.04		.80
Linear Change	-.01	.03		.87
Quadratic Change	.00	.01		.90
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.33*	.05		.00
Slope	.18*	.05		.10
Quadratic Change	.01*	.00		
IS U S Covariance	.09*	.04		.65
IS U Q Covariance	.01	.01		.91
<u>Measurement Errors</u>				
E0	.23	.05		.00
E1	.24	.024		.00
E2	.30	.03		.00
E3	.26	.03		.00
E4	.10	.05		.04

*Note.* \* $p < .01$  for all unstandardized estimates.

Table 14

*Conditional Latent Growth Model Parameter of Change in Externalizing*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
<u>Mean Structure</u>				
Gender	16.01	.05		
Generational Status	.12	.02		
Age	.16	.02		
<u>Latent Growth Factor Mean</u>				
Initial Status	-.08	.50		.87
Linear Change	-.12	.48		.81
Quadratic Change	.08	.11		.49
<u>Covariance Structure</u>				
<u>Variances and Covariance</u>				
Latent Growth Factor				
Initial Status	.32	.05		.00
Slope	.18	.05		.00
	.01	.00		
IS U S Covariance	-.10	.04		.03
<u>Direct Effects</u>				
Gender → IS	-.28	.10		.01
Generational Status → IS	-.17	.10		.08
Age → IS	.01	.03		.76
Gender → LC	.13	.10		.21

*(table continues)*

Parameter	Unstandardized	SE	Standardized	<i>p</i>
Generational Status → LC	-.15	.09		.10
Age → LC	.01	.03		.81
Gender → Q	-.03	.02		.22
Generational Status → Q	.04	.02		.07
Age → Q	-.01	.01		.48
<u>Measurement Errors</u>				
E0	.22	.05		.00
E1	.24	.02		.00
E2	.20	.03		.00
E3	.22	.03		.00
E4	.15	.05		.04

*Note.* Gender: 0 = Male, 1 = Female; Generational Status: 2nd Generational or Later = 0, 1st

Generation = 1; IS = Initial Status; LC = Linear Change; Q = Quadratic Change.

*p* < .01 for all unstandardized estimates.

Table 15

*Parallel Process Regression Estimates of Mexican Orientation Growth Parameters  
Predicting Internalizing Symptoms and Externalizing Behaviors Initial Status and Linear  
Slope*

	Parameter	Intercept	Slope	Generational Status
Internalizing	IS	.01		-.01
	SL	-.02*	-.02	.02
Externalizing	IS	-.08		-.12
	SL	-.01	-.32*	-.15

*Note.* IS = Initial Status; LC = Linear Change.

\* $p < .05$ .

Table 16

*Parallel Process Regression Estimates of American Orientation Growth Parameters  
Predicting Internalizing Symptoms and Externalizing Behaviors Initial Status and Linear  
Slope*

	Parameter	Intercept	Slope	Generational Status
Internalizing	IS	-.05		0
	SL	.03	-.37	0
Externalizing	IS	-.21		-.05*
	SL	-.02	.24	-.16

*Note.* IS = Initial Status; LC = Linear Change.

\* $p < .05$ .

Table 17

*Parallel Process Regression Estimates of Discrimination Growth Parameters Predicting Internalizing Symptoms and Externalizing Behaviors Growth Parameters*

	Parameter	Intercept	Slope	Generational Status
Internalizing	IS	.13*		.01
	SL	-.01	.33	0
Externalizing	IS	.26*		-.14
	SL	-.03	-.04	-.16

*Note.* IS = Initial Status; LC = Linear Change.

\* $p < .05$ .

Table 18

*Latent Moderation of American Acculturation Moderating the Relationship Between Mexican Acculturation and Internalizing and Externalizing Symptoms*

	IS MOS X IS AOS	IS MOS X LC AOS	LC MOS X IS AOS	LC MOS x LC AOS
Internalizing	-.01*	-1.10*	0.03	NA
Externalizing	.01	NA	NA	NA

*Note.* NA: models did not converge. IS = Initial Status; LC = Linear Change; MOS = Mexican Orientation; AOS= American Orientation.

\* $p < .05$ .

Table 19

*Latent Moderation of Mexican Acculturation Growth Parameters Moderating the Relationship Between Perceived Police Discrimination and Internalizing and Externalizing Symptoms Growth Parameters*

	IS DIS X IS MOS	IS DIS X LC MOS	LC DIS X IS MOS	LC DIS X LC MOS
Internalizing	-.04	1.05*	-1.05*	NA
Externalizing	-.04	-.43	NA	NA

*Note.* NA: models did not converge. IS = Initial Status; LC = Linear Change; MOS = Mexican Orientation; DIS = Perceived Police Discrimination.

\* $p < .05$ .

Table 20

*Latent Moderation of American Acculturation Growth Parameters Moderating the Relationship Between Perceived Police Discrimination and Internalizing and Externalizing Symptoms Growth Parameters*

	IS DIS X IS AOS	IS DIS X LC AOS	LC DIS X IS AOS	LC DIS X LC AOS
Internalizing	-.12	2.23*	NA	NA
Externalizing	.05	NA	NA	NA

*Note.* NA: models did not converge. IS = Initial Status; LC = Linear Change; AOS = American Orientation; DIS = Perceived Police Discrimination.

\* $p < .05$ .



Table 21

*Moderating Growth Model of Initial Status in American Orientation Moderating the Relationship Between Baseline Mexican Orientation and Internalizing Symptoms*

Parameter	Unstandardized	SE
<u>Latent Growth Factor Mean</u>		
Initial Status Internalizing	.30	.01
Linear Change Internalizing	-.09	.01
Initial Status MOS	2.98	.06
Linear Change MOS	.03	.01
Initial Status AOS	3.99	.03
Linear Change AOS	.05	.01
<u>Direct Effects</u>		
Internalizing LC → IS Mexican Orientation	.02	.01
Internalizing LC → IS American Orientation	.03*	.01
Internalizing LC → IS Mexican O. X IS American O.	-.01*	.00
<u>Levels of Interaction</u>		
Simp_Lo American Orientation	-.01	.01
Simp_Med American Orientation	-.02*	.01
Simp_HI American Orientation	-.02*	.01

*Note.* IS = Initial Status; LC = Linear Change; MOS = Mexican Orientation; AOS = American Orientation.

\* $p < .05$ .

Table 22

*Moderating Growth Model of Linear Change in American Orientation*  
*Moderating the Relationship Between Baseline Mexican Orientation and*  
*Internalizing Symptoms*

Parameter	Unstandardized	SE
<u>Latent Growth Factor mMean</u>		
Initial Status Internalizing	0.3*	.09
Linear Change Internalizing	-.12	.01
Initial Status MOS	2.96*	.06
Linear Change MOS	0.03*	.01
Initial Status AOS	3.99*	.03
Linear Change AOS	0.05*	.01
<u>Direct effects</u>		
Int LC → IS MOS	.04*	.02
Int LC → LC AOS	4.01*	.83
Int LC → IS MOS X LC AOS	-1.10*	.19
<u>Levels of Interaction</u>		
Simp_Lo AOS	.30*	.50
Simp_Med AOS	.06*	.37
Simp_HI AOS	-.18*	.32

*Note.* IS = Initial Status; LC = Linear Change; MOS = Mexican Orientation;  
 AOS = American Orientation.

\* $p < .05$ .

Table 23

*Growth Model for Parallel Process for Continuous Outcomes With Interaction of Linear Change in Perceived Discrimination and Initial Status in Mexican Orientation Predicting Linear Change in Internalizing Symptoms*

Parameter	Unstandardized	SE
<u>Direct Effects</u>		
Internalizing LC → LC Perceived Police Discrimination	3.84*	.01
Internalizing LC → IS Mexican Orientation	0	.01
Internalizing LC → LC Discrimination X IS Mexican O.	-1.05*	.00
<u>Levels of Interaction</u>		
Simp_Lo Mexican Orientation	1.75	.01
Simp_Med Mexican Orientation	.71*	.01
Simp_HI Mexican Orientation	-.33	.01

*Note.* IS = Initial Status; LC = Linear Change; MOS = Mexican Orientation; DIS = Perceived Police Discrimination.

\* $p < .05$ .

Table 24

*Growth Model for Parallel Process for Continuous Outcomes With Interaction of Initial Status in Perceived Discrimination and Linear Change in Mexican Orientation Predicting Linear Change in Internalizing Symptoms*

Parameter	Unstandardized	SE
<u>Direct Effects</u>		
Internalizing LC → IS Perceived Police Discrimination	-3.84*	.01
Internalizing LC → LC Mexican Orientation	-.04	.01
Internalizing LC → IS Discrimination X LC Mexican O.	1.06*	.00
<u>Levels of Interaction</u>		
Simp_Lo Mexican Orientation	-.16	.01
Simp_Med Mexican Orientation	-.01	.01
Simp_HI Mexican Orientation	.14	.01

*Note.* IS = Initial Status; LC = Linear Change; MOS = Mexican Orientation; DIS = Perceived Police Discrimination.

\* $p < .05$ .

Table 25

*Growth Model for Parallel Process for Continuous Outcomes With Interaction of Initial Status in Perceived Discrimination and Linear Change in American Orientation Predicting Linear Change in Internalizing Symptoms*

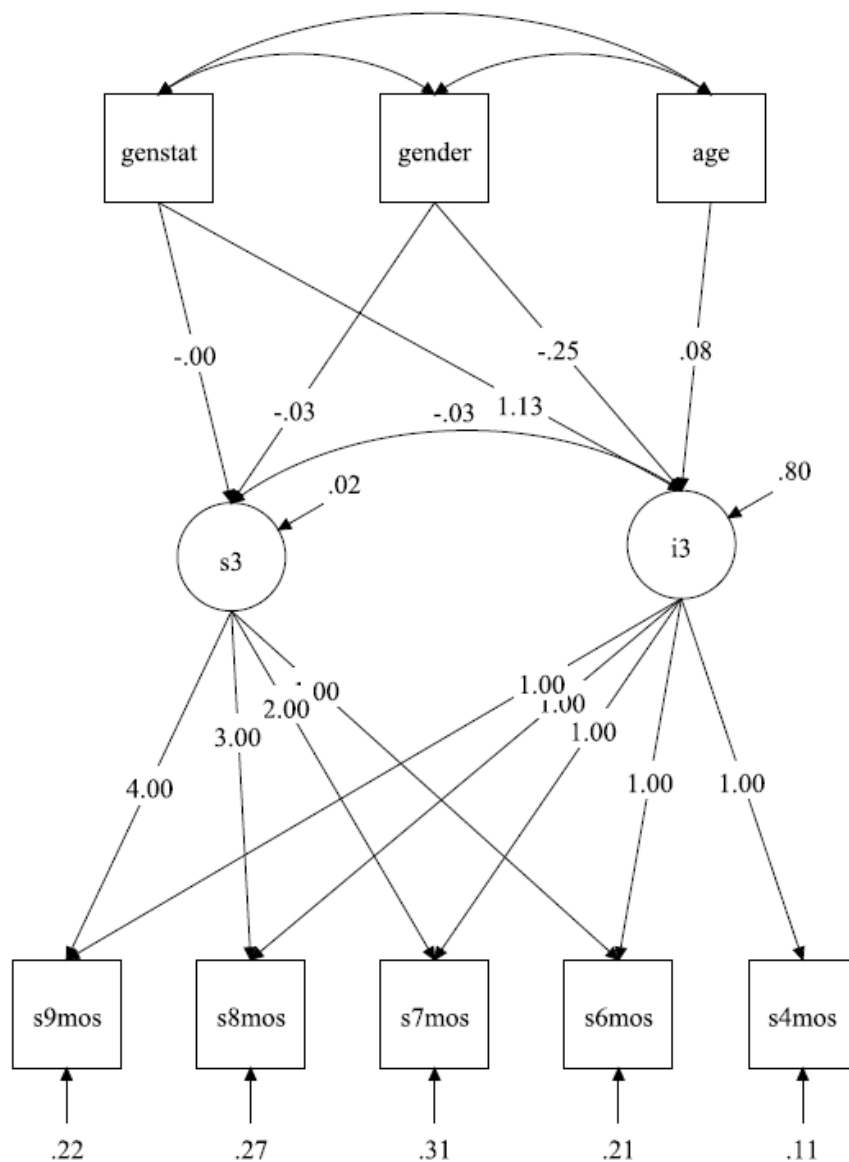
Parameter	Unstandardized	SE
<u>Direct Effects</u>		
Internalizing LC → IS Perceived Police Discrimination	-.14*	.01
Internalizing LC → LC American Orientation	-6.79	.01
Internalizing LC → IS Discrimination X LC American O.	2.24*	.00
<u>Levels of Interaction</u>		
Simp_Lo American Orientation	-.68	.01
Simp_Med American Orientation	-.18	.01
Simp_HI American Orientation	.30	.01

*Note.* IS = Initial Status; LC = Linear Change; DIS = Perceived Police Discrimination;

AOS = American Orientation.

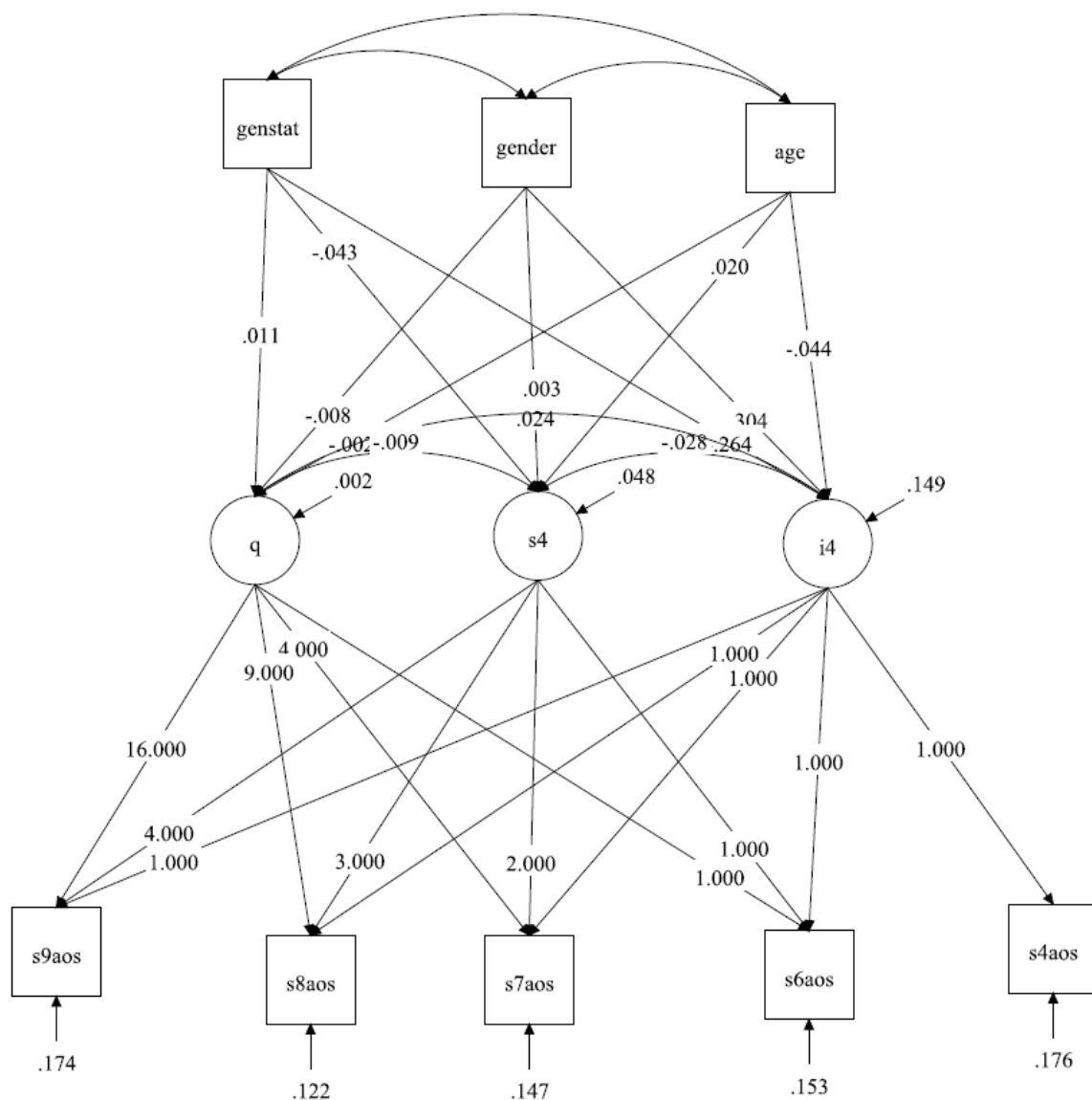
\* $p < .05$ .

## APPENDIX B



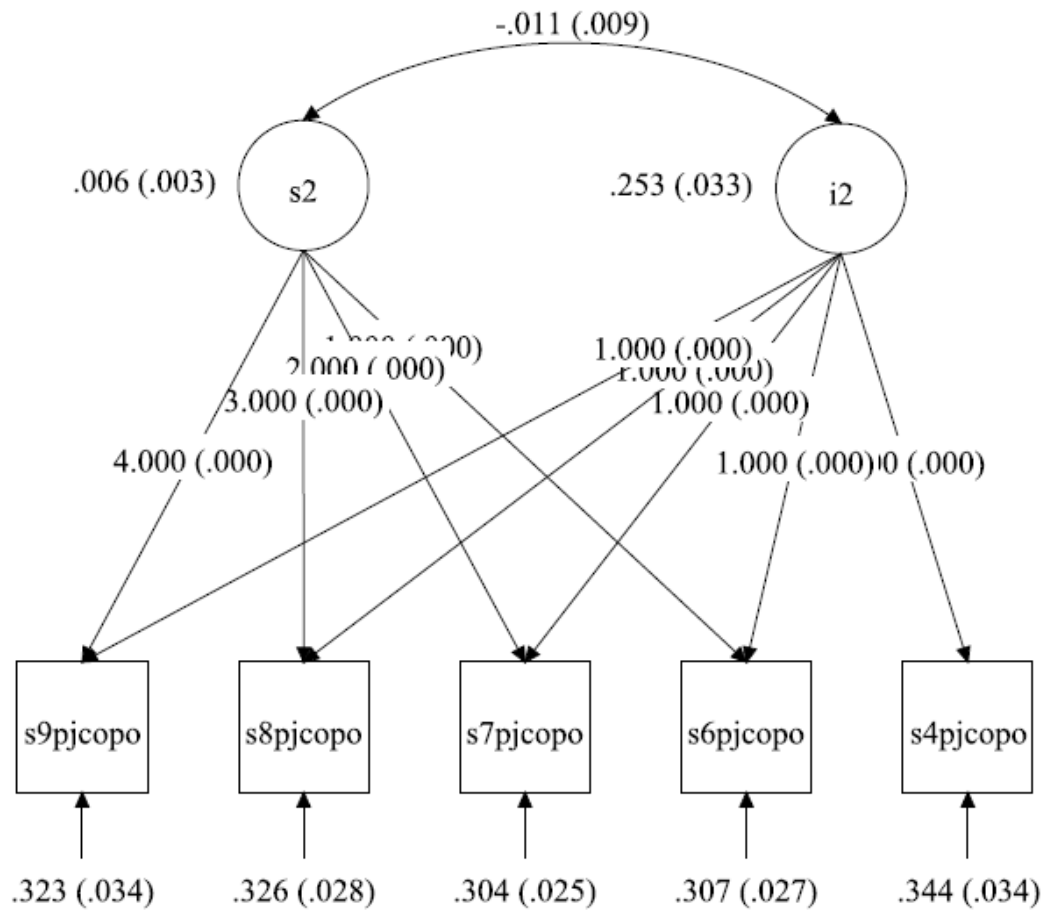
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances.  $I_3$  = baseline Mexican Orientation;  $S_3$  = linear growth in Mexican Orientation; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

Figure 1. Conditional latent growth curve model for Mexican acculturation.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances.  $I4$  = baseline American Orientation;  $S4$  = linear growth in American Orientation;  $Q$  = Quadratic Growth in American orientation; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

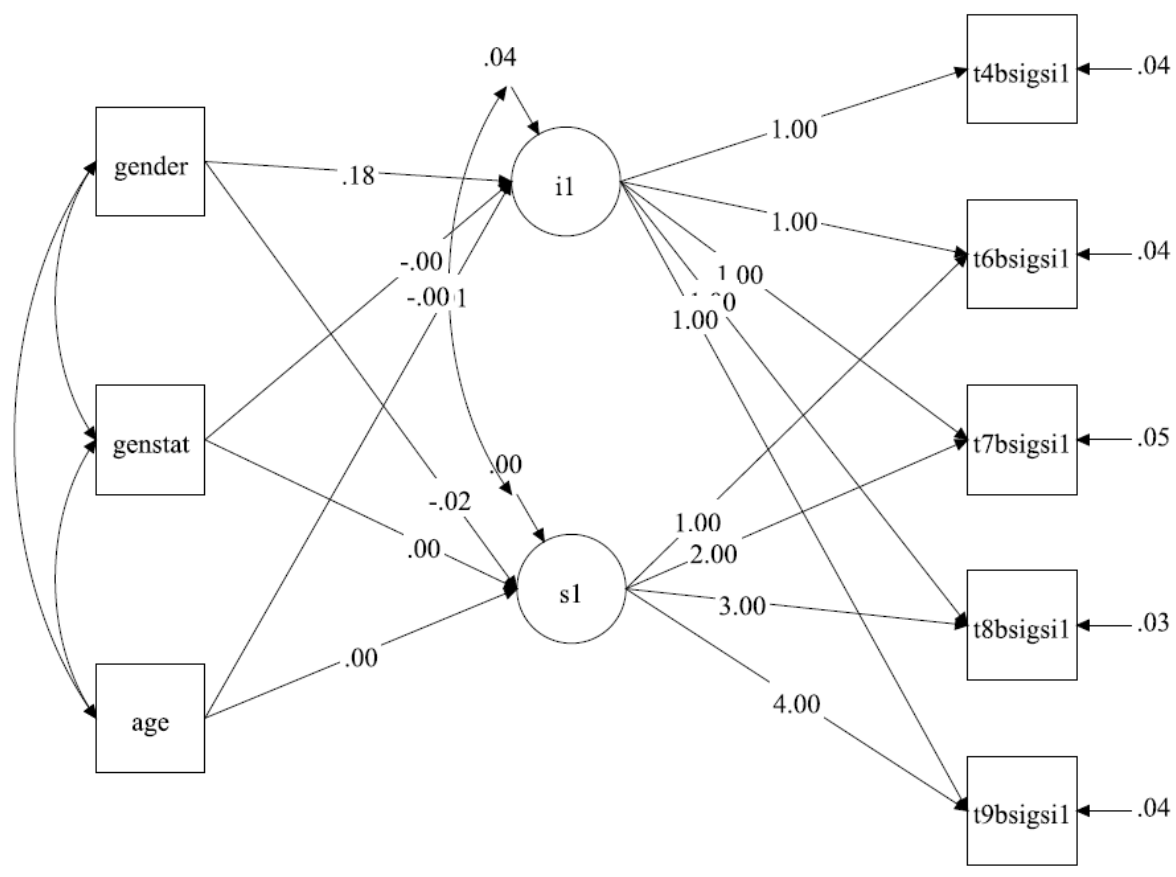
Figure 2. Conditional latent growth curve model for American orientation.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. I2 = baseline Perceived Police Discrimination; S2 = linear growth in Perceived Police Discrimination; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

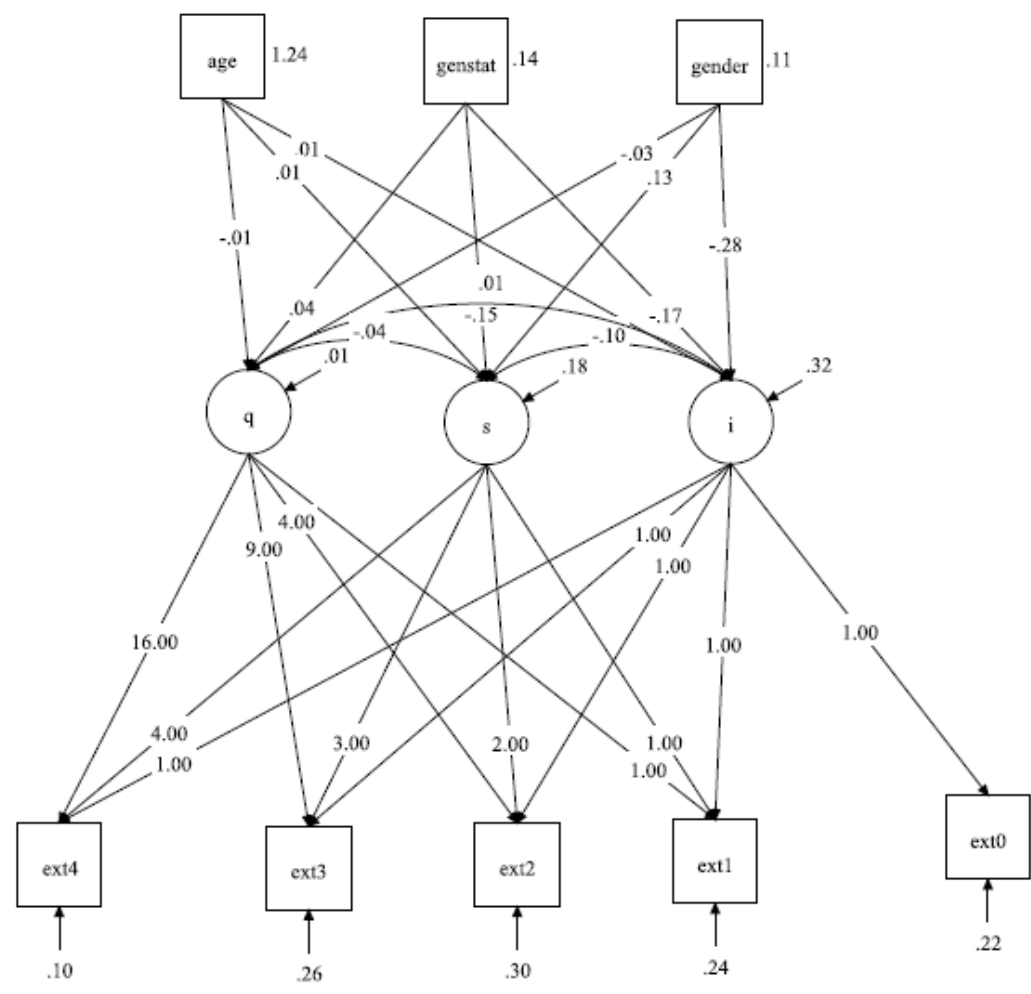
*Figure 3.* Conditional latent growth curve perceived police discrimination.





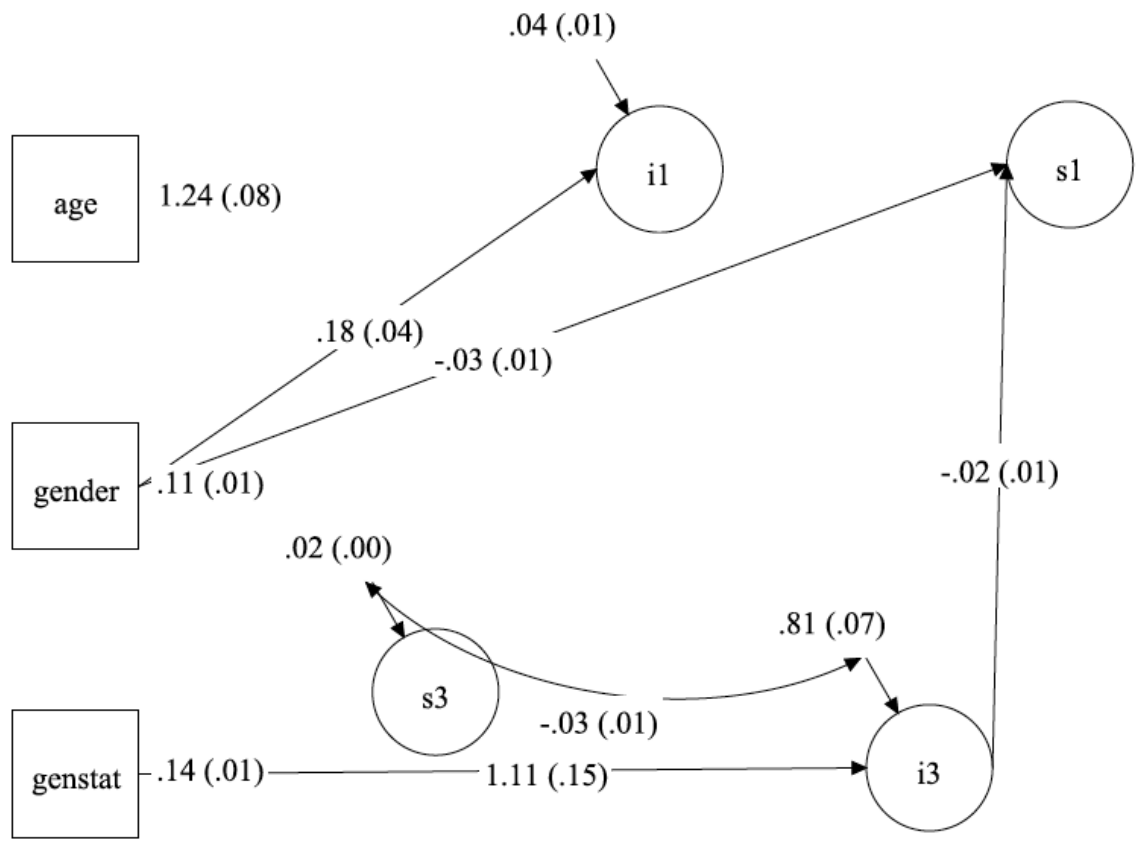
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Internalizing; S1 = linear growth in Internalizing; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

Figure 4. Conditional latent growth curve internalizing symptoms.



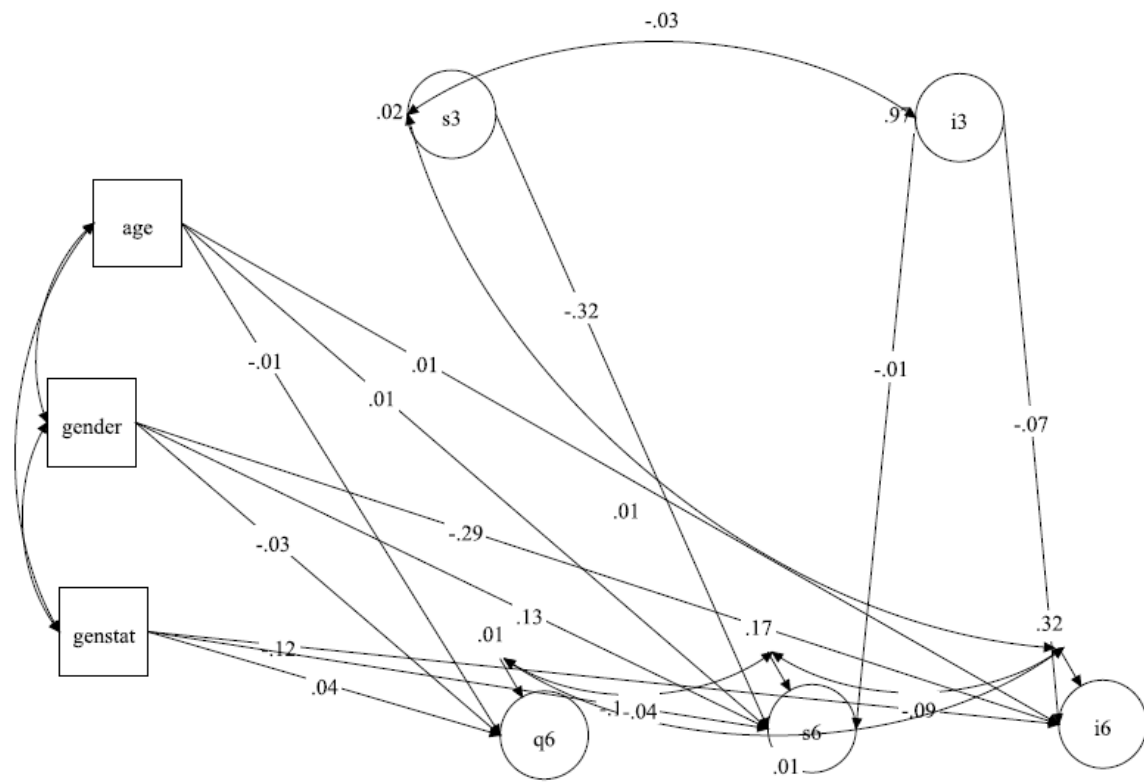
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Externalizing; S1 = linear growth in Externalizing; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

Figure 5. Conditional latent growth curve externalizing symptoms.



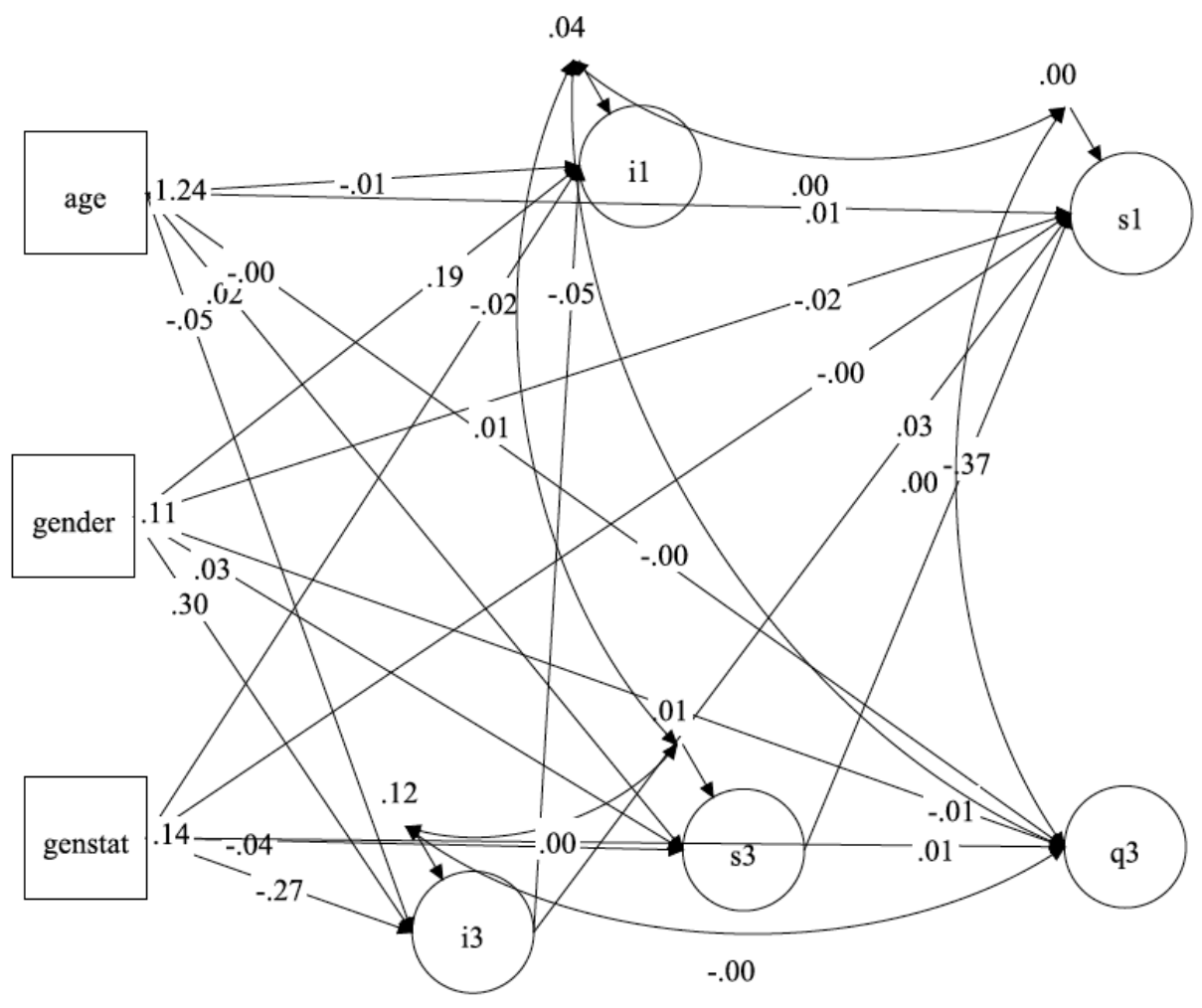
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Internalizing Symptoms; S1 = linear growth in Internalizing symptoms; I3 = baseline Mexican Orientation; S3 = linear growth in Mexican Orientation; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

*Figure 6.* Latent growth curve analyses of parallel process relationships of Mexican orientation predicting internalizing symptoms.



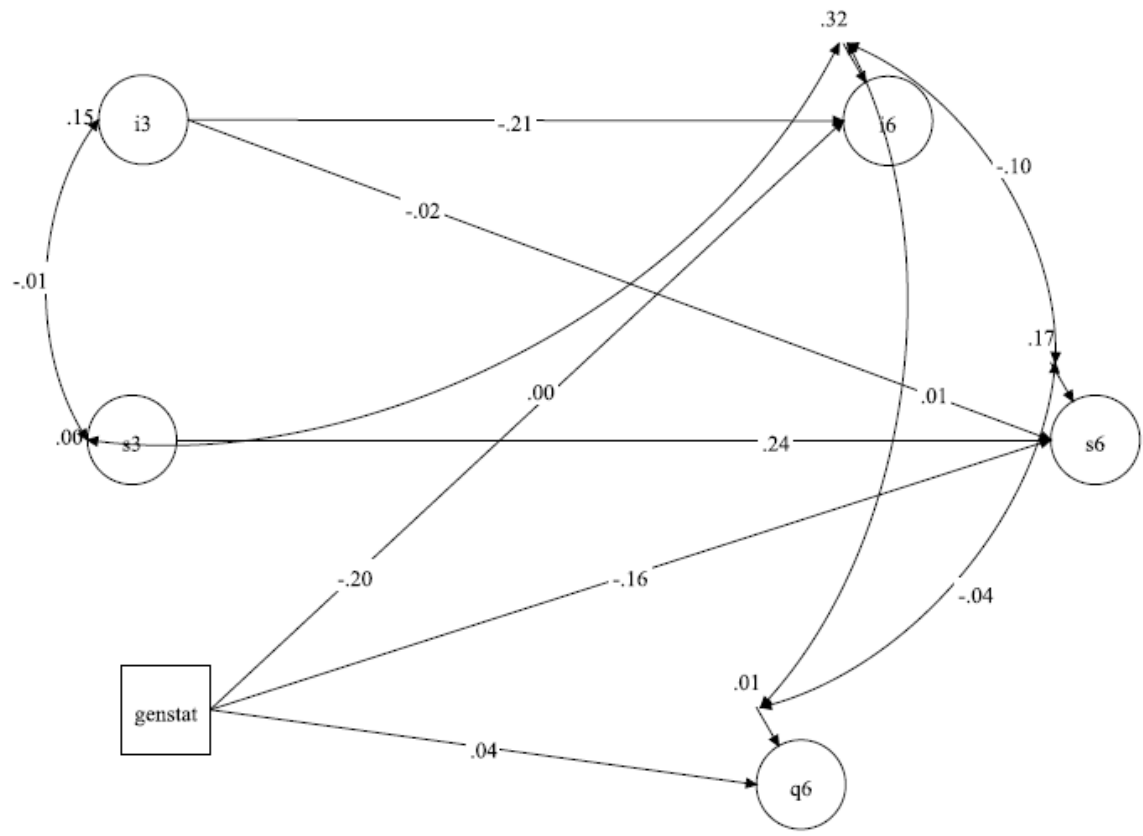
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I6 = baseline Externalizing Symptoms; S6 = linear growth in Externalizing symptoms; Q6 = quadratic growth in Externalizing symptoms; I3 = baseline Mexican Orientation S3 = linear growth in Mexican Orientation; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

*Figure 7.* Latent growth curve analyses of parallel process relationships of Mexican orientation predicting externalizing symptoms.



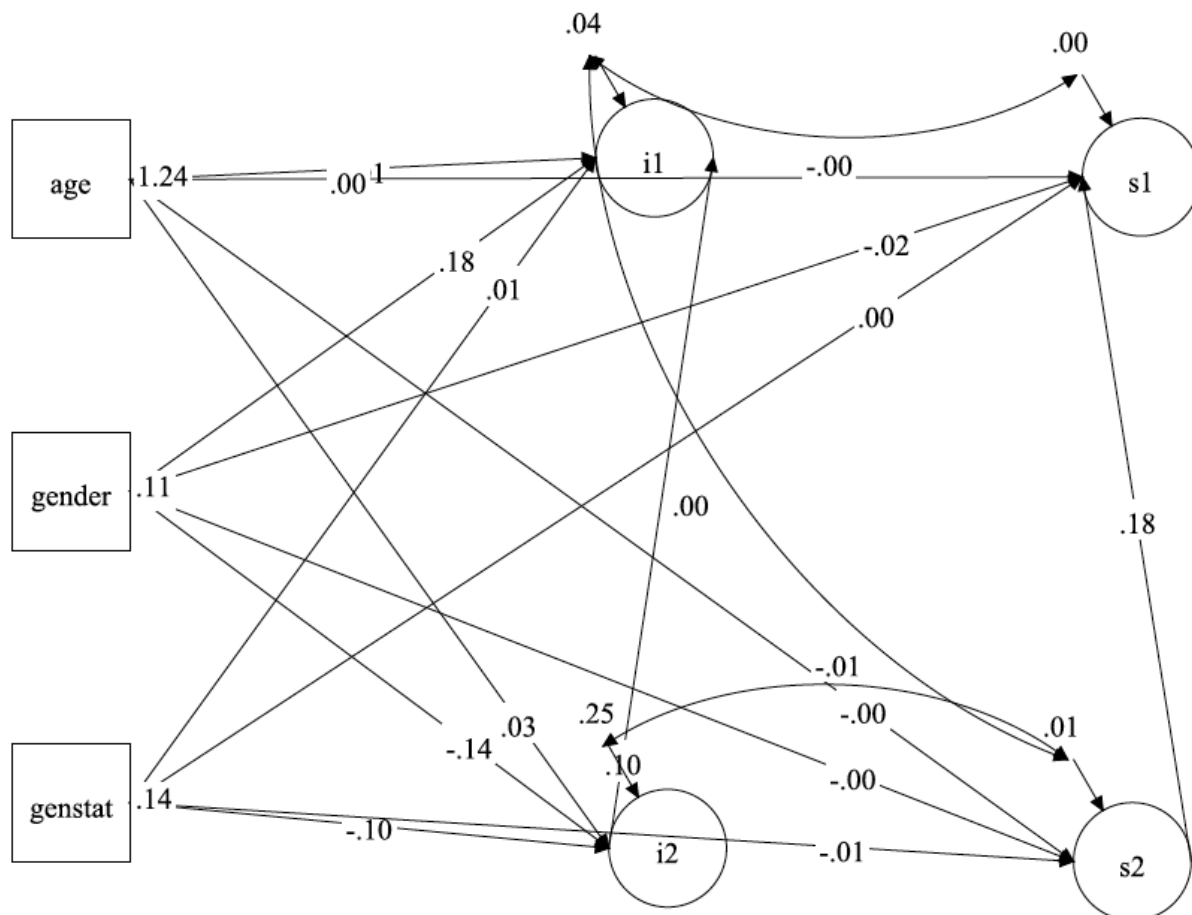
Note. Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Internalizing Symptoms; S1 = linear growth in Internalizing Symptoms; I3 = baseline American Orientation; S3 = linear growth in American Orientation; Q3 = quadratic growth in American Orientation; Gender: 0 = men, 1 = women.

Figure 8. Latent growth curve analyses of parallel process relationships of American orientation predicting internalizing symptoms.



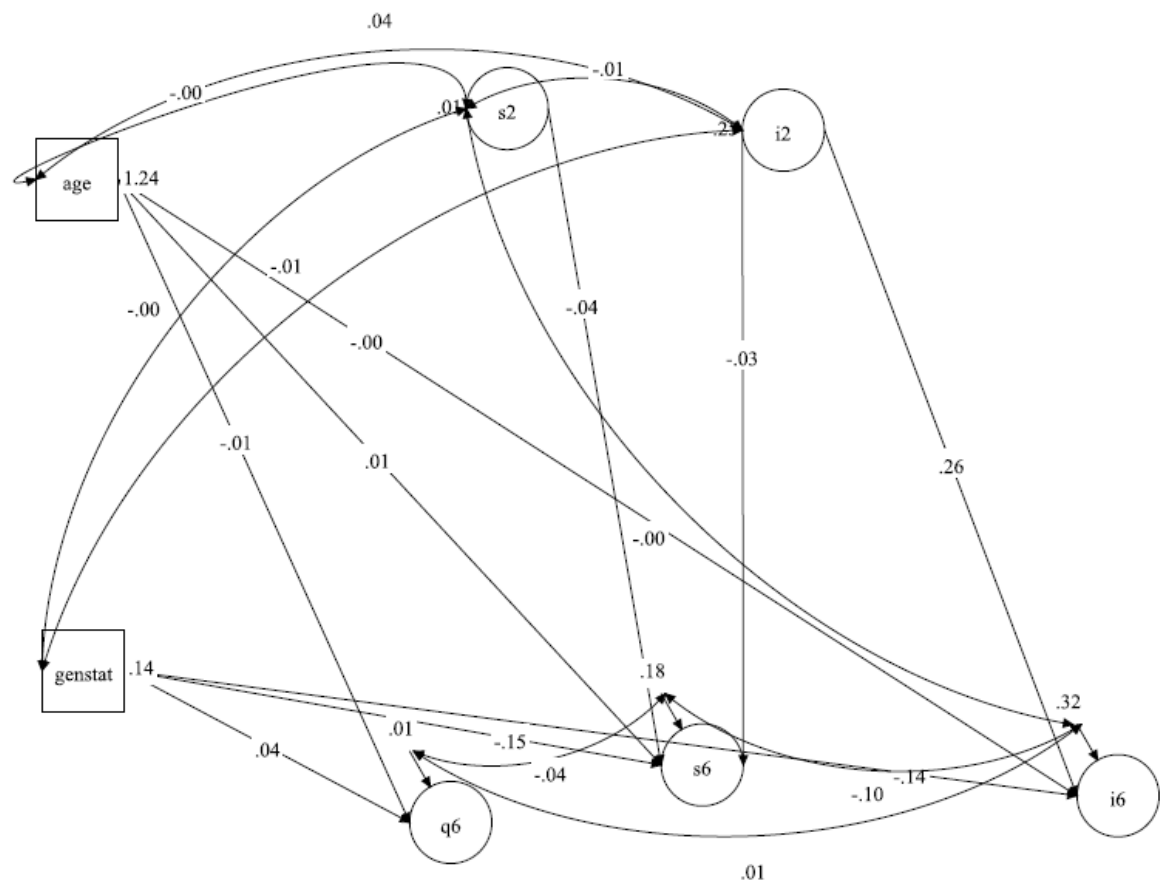
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Externalizing Symptoms; S1 = linear growth in Externalizing Symptoms; Q6 = quadratic growth in Externalizing Symptoms; I3 = baseline American Orientation; S3 = linear growth in American Orientation; Q3 = quadratic growth in American Orientation; Generational Status: 0 = men, 1 = women.

*Figure 9.* Latent growth curve analyses of parallel process relationships of American orientation predicting externalizing symptoms.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Internalizing; S1 = linear growth in Internalizing; I2 = baseline Perceived Police Discrimination; S2 = linear growth in Perceived Police Discrimination; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

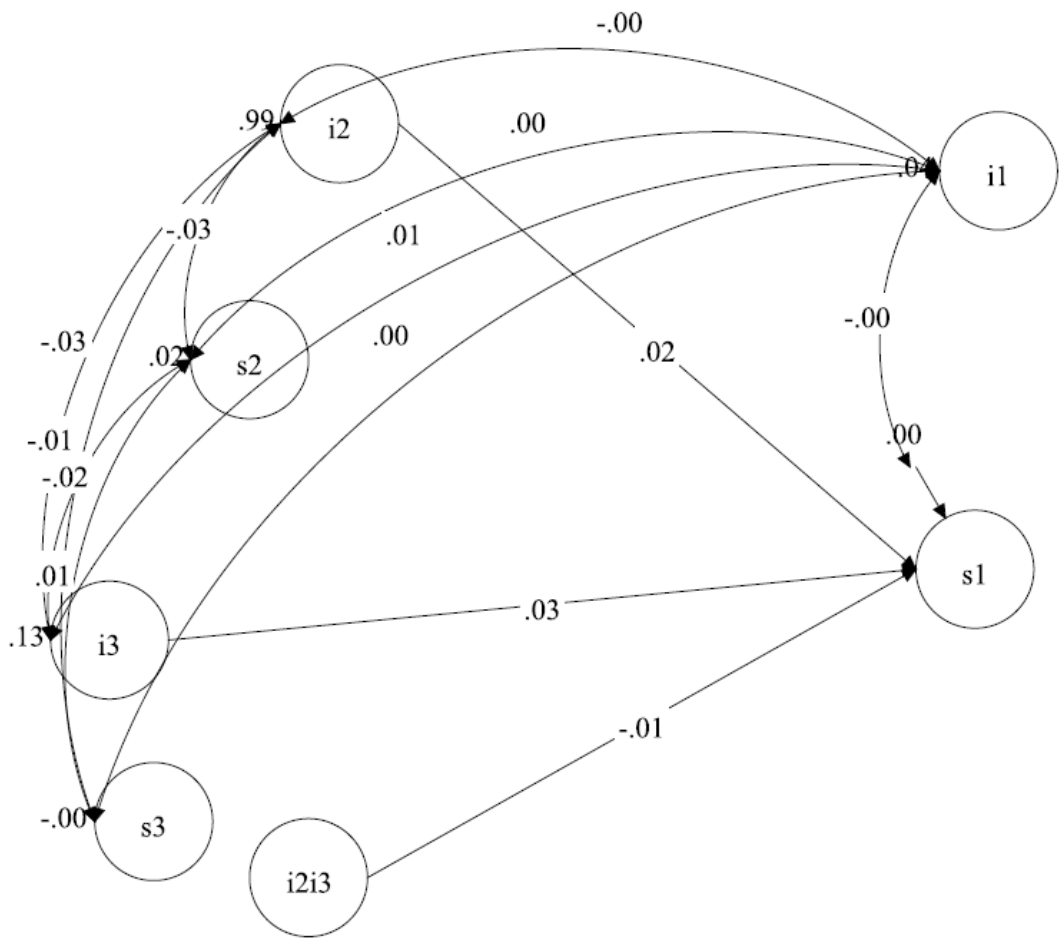
*Figure 10.* Latent growth curve analyses of parallel process relationships of perceived police discrimination predicting linear growth in internalizing symptoms.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Externalizing behaviors; S1 = linear growth in Externalizing behaviors; Q6 = quadratic growth in Externalizing behaviors; I2 = baseline Perceived Police Discrimination; S2 = linear growth in Perceived Police Discrimination; Gender: 0 = men, 1 = women; Genstat = Generational status: 0 = U.S. born Hispanic, 1 = 1<sup>st</sup> generation Hispanic.

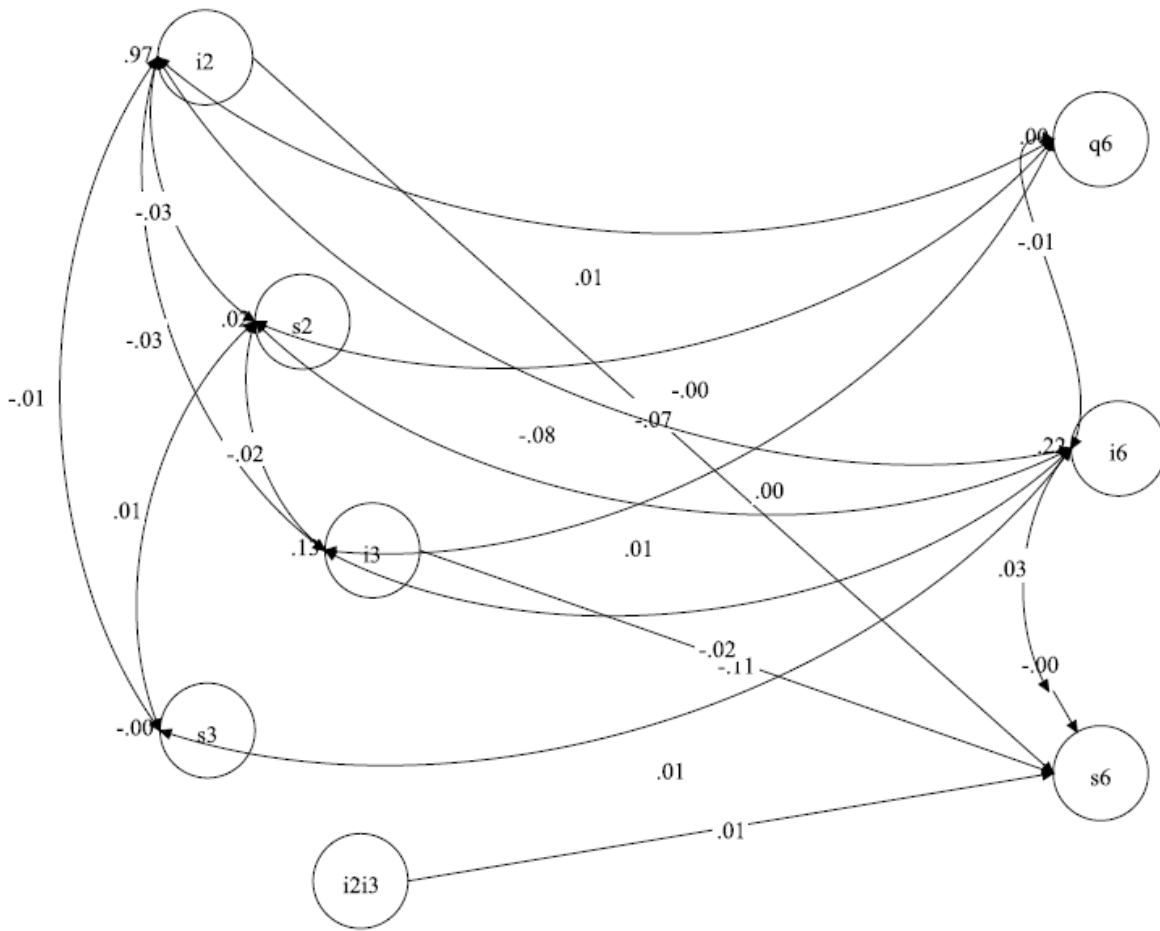
*Figure 11.* Latent growth curve analyses of parallel process relationships of perceived police discrimination predicting linear growth in externalizing behaviors.





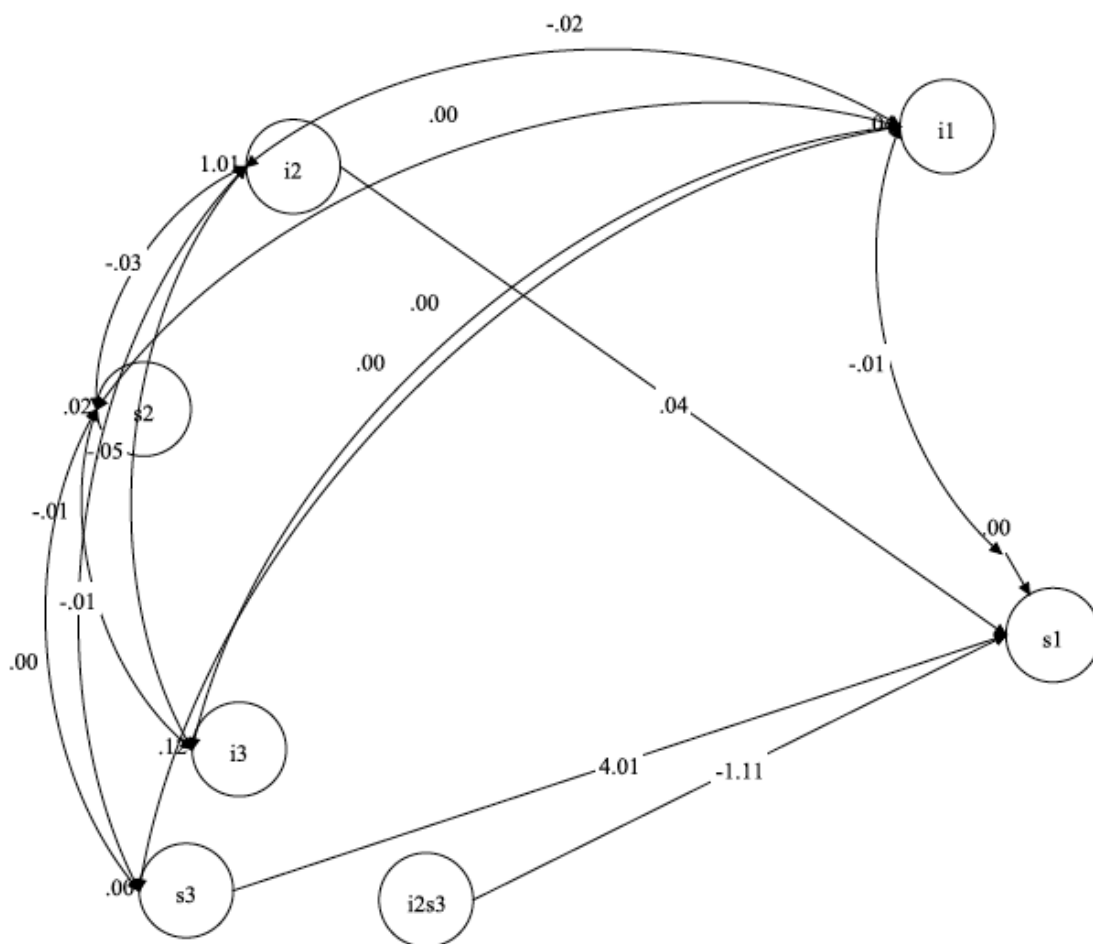
Note. Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. i6 = baseline Internalizing symptoms; s6 = linear growth in Internalizing symptoms; i2 = baseline Mexican orientation; s2 = linear growth in Mexican orientation; i2 = baseline American orientation; s2 = linear growth in American orientation; i2i3 = interaction between initial status in Mexican orientation and initial status in American orientation.

Figure 12. Latent growth curve analyses of parallel process relationships with the interaction between initial status in Mexican orientation and initial status in American orientation predicting linear growth in internalizing symptoms.



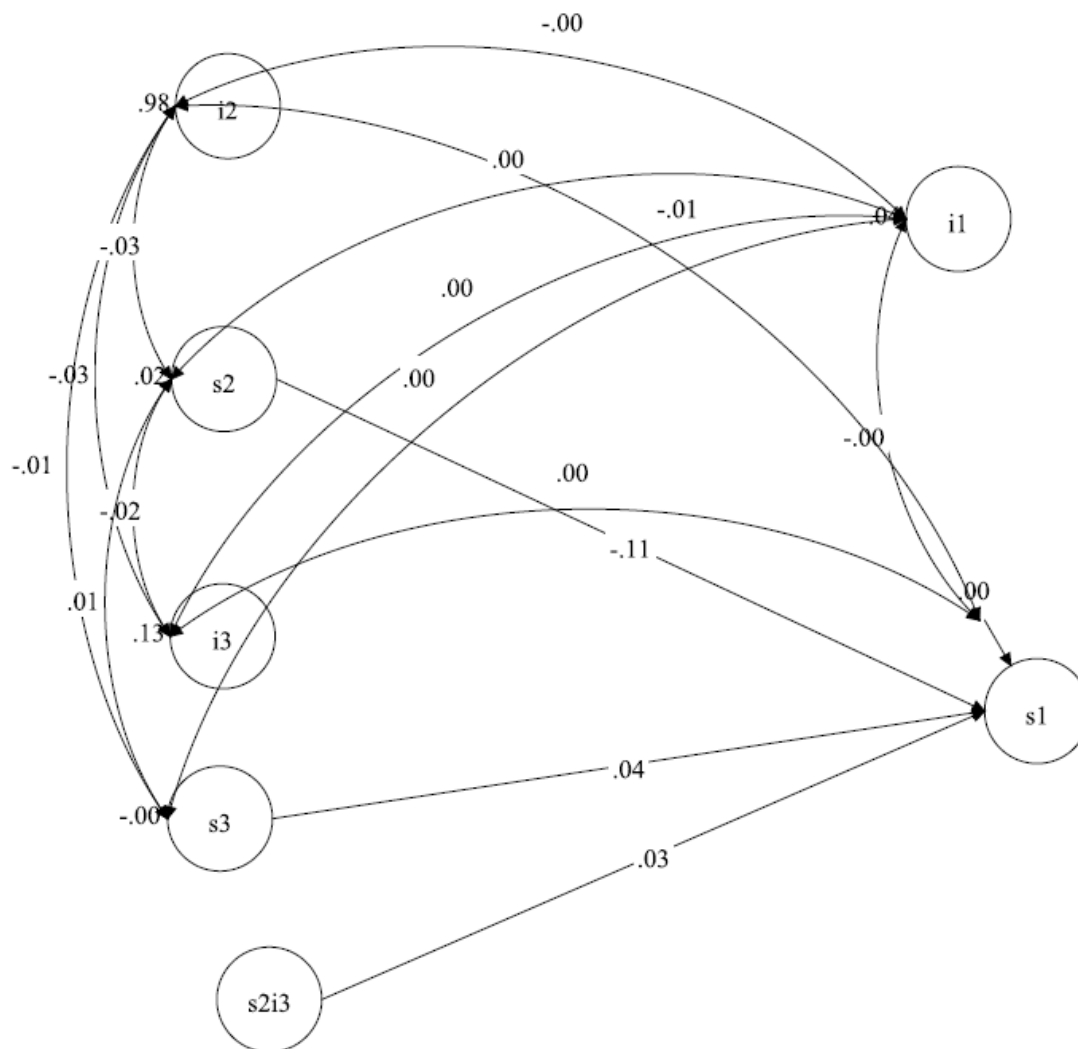
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. i6 = baseline Externalizing symptoms; s6 = linear growth in Externalizing symptoms; q6 = quadratic growth in Externalizing symptoms; i2 = baseline Mexican orientation; s2 = linear growth in Mexican orientation; i2 = baseline American orientation; s2 = linear growth in American orientation; i2i3 = interaction between initial status in Mexican orientation and initial status in American orientation.

*Figure 13.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in Mexican orientation and initial status in American orientation predicting linear growth in externalizing symptoms.



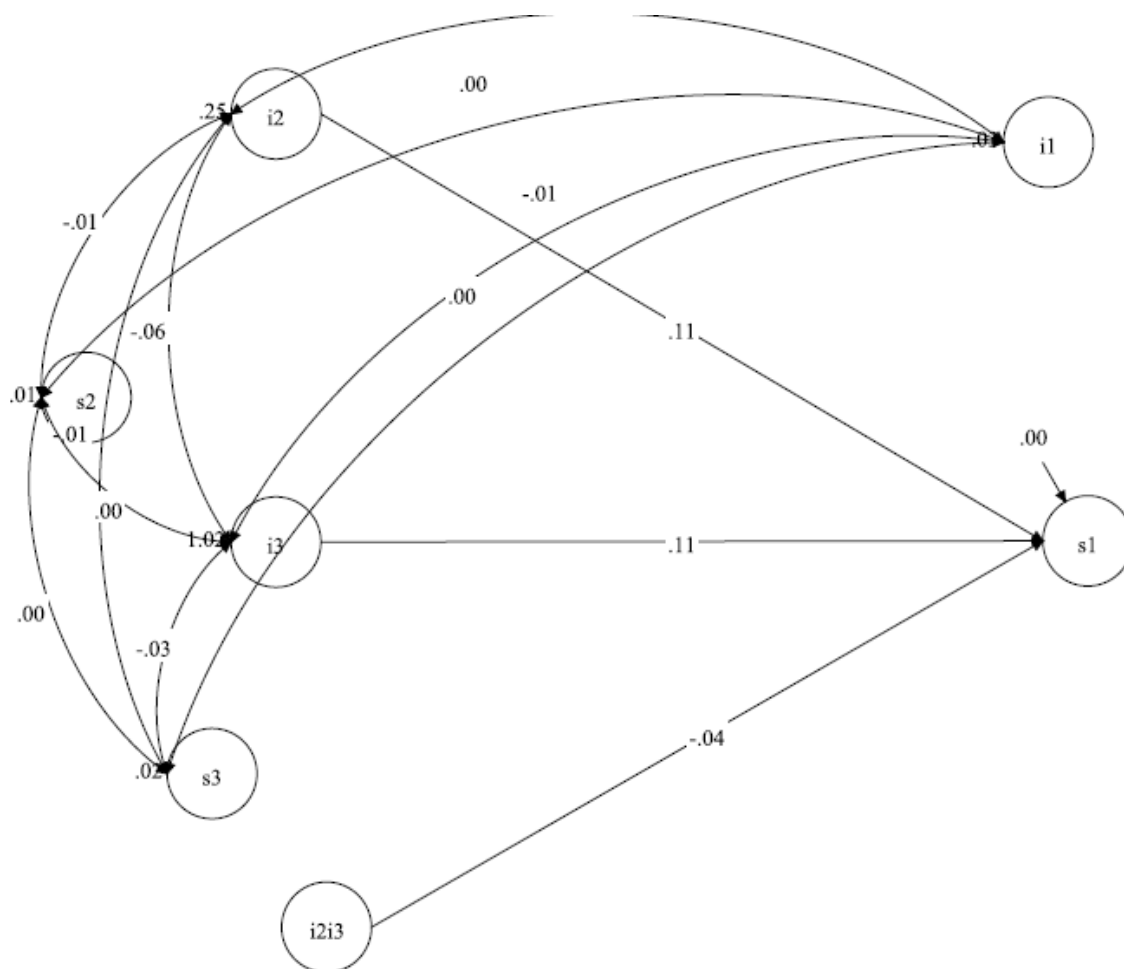
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity.  $i6$  = baseline internalizing;  $s6$  = linear growth in Alcohol Use;  $i2$  = baseline Mexican orientation;  $s2$  = linear growth in Mexican orientation;  $i3$  = baseline American orientation;  $s3$  = linear growth in American orientation;  $i2i3$  = interaction between initial status in Mexican orientation and linear change in American orientation.

*Figure 14.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in Mexican orientation and linear change in American orientation predicting linear growth in internalizing symptoms.



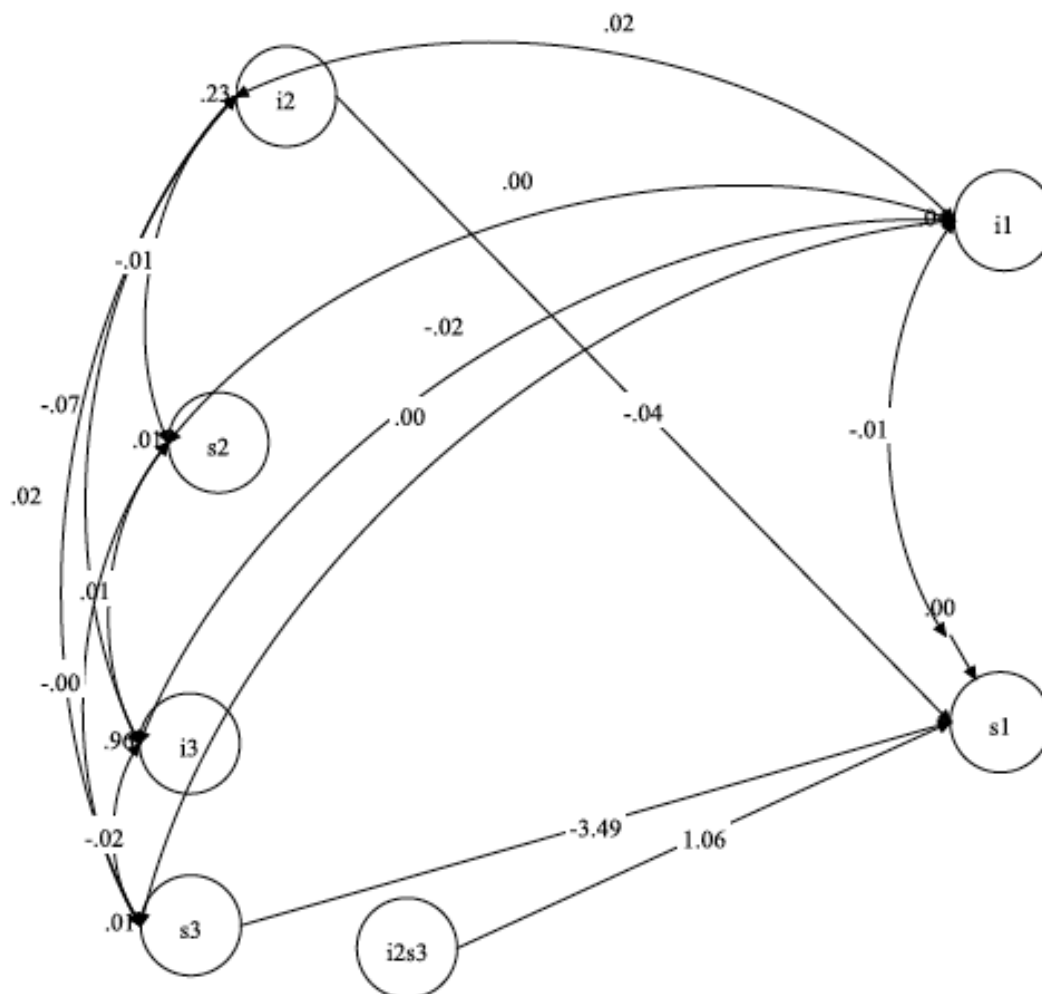
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity.; I1 = baseline Internalizing symptoms; S1 = linear growth in Internalizing symptoms; i2 = baseline Mexican orientation; s2 = linear growth in Mexican orientation; i2 = baseline American orientation; s2 = linear growth in American orientation; s2i3 = interaction between linear change in Mexican orientation and initial status in American orientation.

*Figure 15.* Latent growth curve analyses of parallel process relationships with the interaction between linear change in Mexican orientation and initial status in American orientation predicting linear growth in internalizing symptoms.



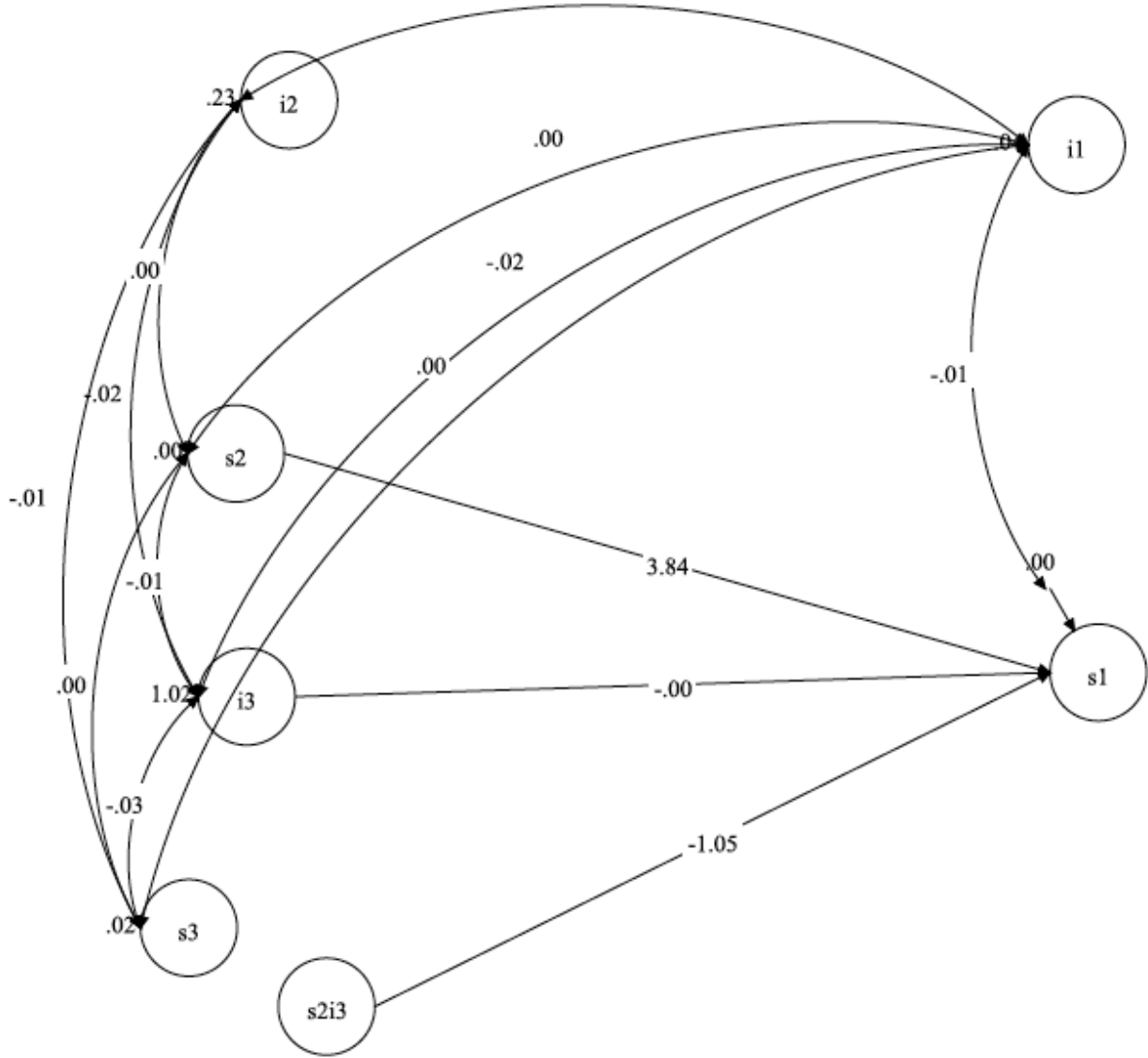
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity.  $i_6$  = baseline Internalizing symptoms;  $s_6$  = linear growth in Internalizing symptoms;  $q_6$  = quadratic growth in Internalizing symptoms;  $i_2$  = baseline Perceived Police Discrimination;  $s_2$  = linear growth in Perceived Police Discrimination;  $i_3$  = baseline Mexican orientation;  $s_3$  = linear Mexican in American orientation;  $i_2i_3$  = interaction between initial status in Perceived Police Discrimination and initial status in Mexican orientation.

*Figure 16.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in perceived police discrimination and initial status in Mexican orientation predicting linear growth in internalizing symptoms.



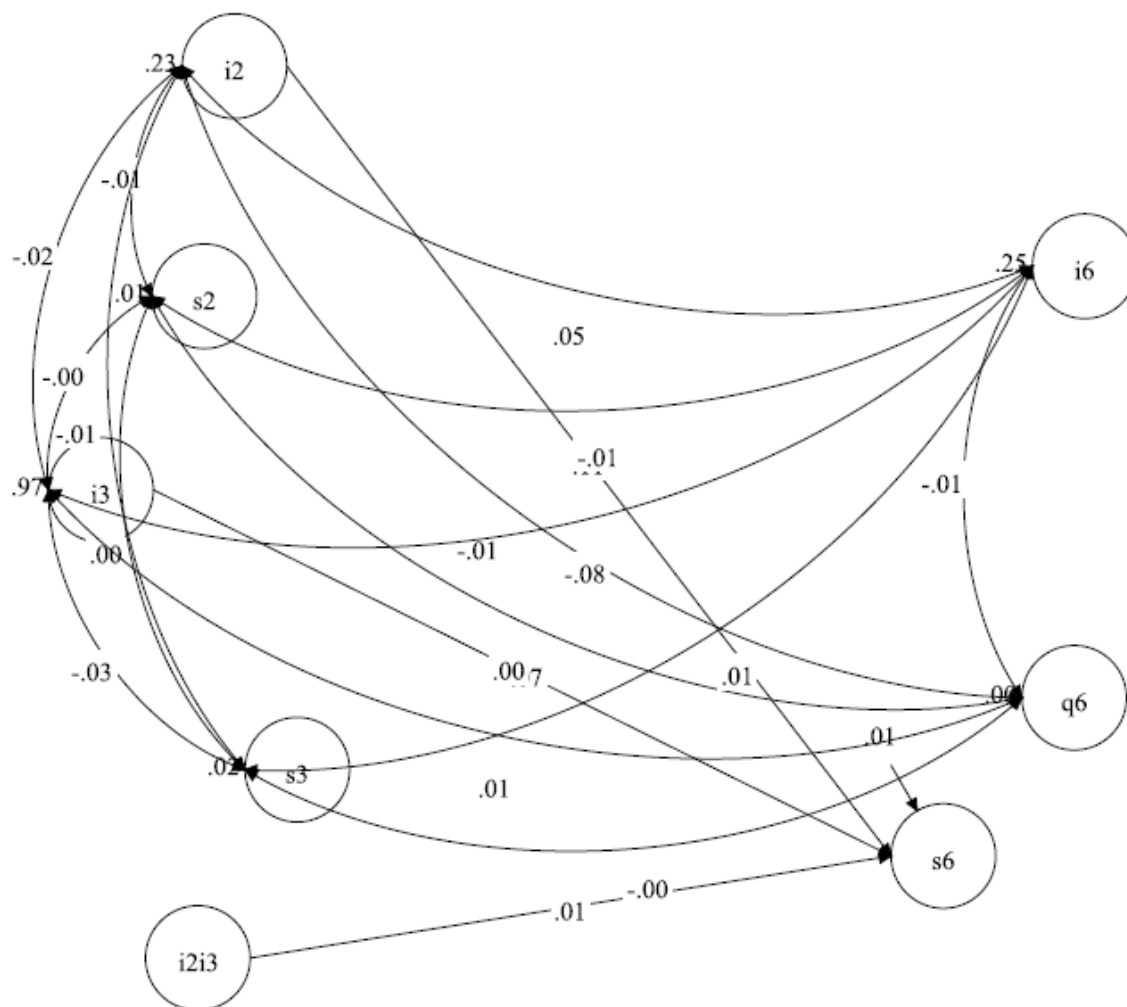
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. i6 = baseline Internalizing symptoms; s6 = linear growth in Internalizing symptoms; q6 = quadratic growth in Internalizing symptoms; i2 = baseline Perceived Police Discrimination; s2 = linear growth in Perceived Police Discrimination; i2 = baseline Mexican orientation; s2 = linear growth in Mexican orientation; i2s3 = interaction between initial status in Perceived Police Discrimination and linear growth in Mexican orientation.

*Figure 17.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in perceived police discrimination and linear change in Mexican orientation predicting linear growth in internalizing symptoms.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity.; i6 = baseline Internalizing symptoms; s6 = linear growth in Internalizing symptoms; q6 = quadratic growth in Internalizing symptoms; i2 = baseline Perceived Police Discrimination; s2 = linear growth in Perceived Police Discrimination; i2 = baseline Mexican orientation; s2 = linear growth in Mexican orientation.

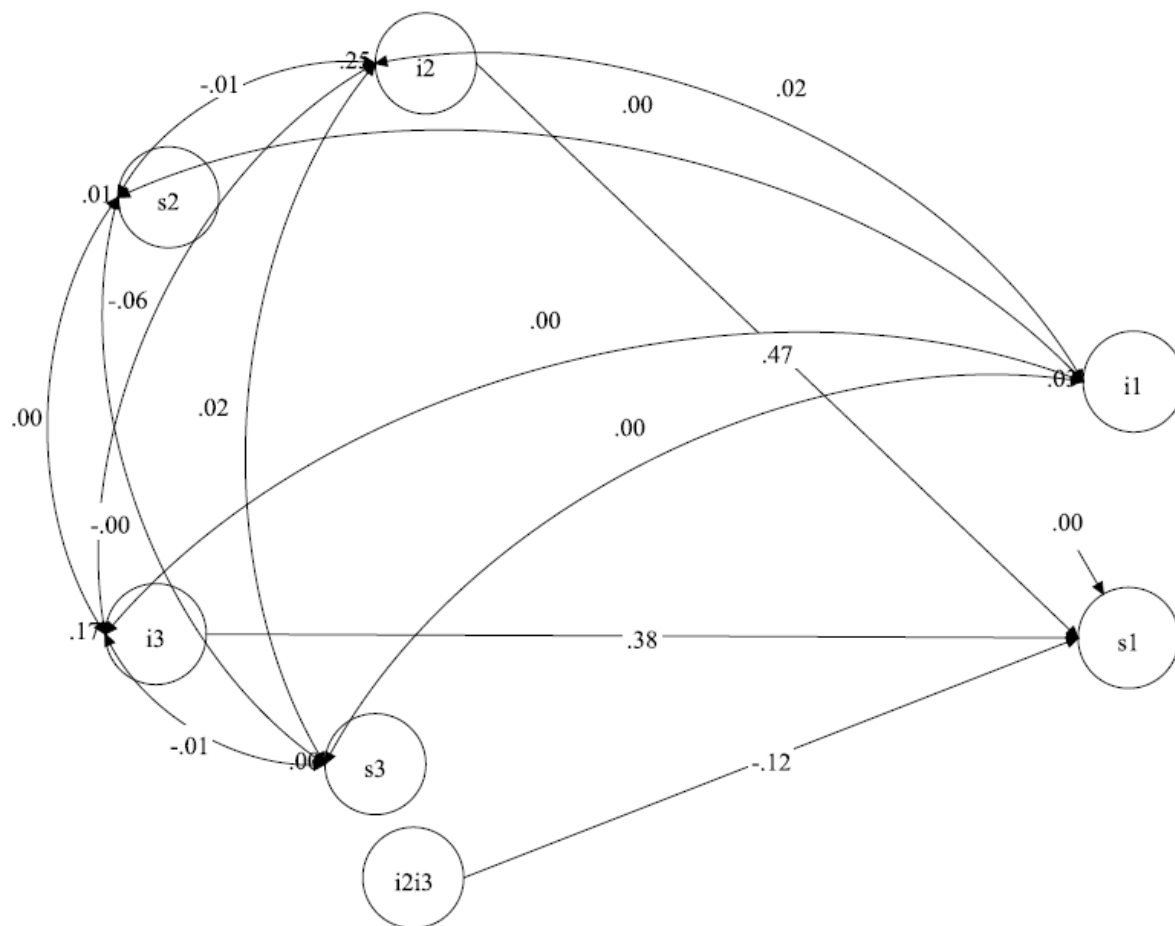
*Figure 18.* Latent growth curve analyses of parallel process relationships with the interaction between linear change in perceived police discrimination and initial status in Mexican orientation predicting linear growth in internalizing symptoms.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. i6 = baseline Externalizing symptoms; s6 = linear growth in Externalizing symptoms; q6 = quadratic growth in Externalizing symptoms; i2 = baseline Perceived Police Discrimination; s2 = linear growth in Perceived Police Discrimination; i3 = baseline Mexican orientation; s3 = linear growth in Mexican orientation; i2i3 = interaction between initial status in Perceived Police Discrimination and initial status in Mexican orientation.

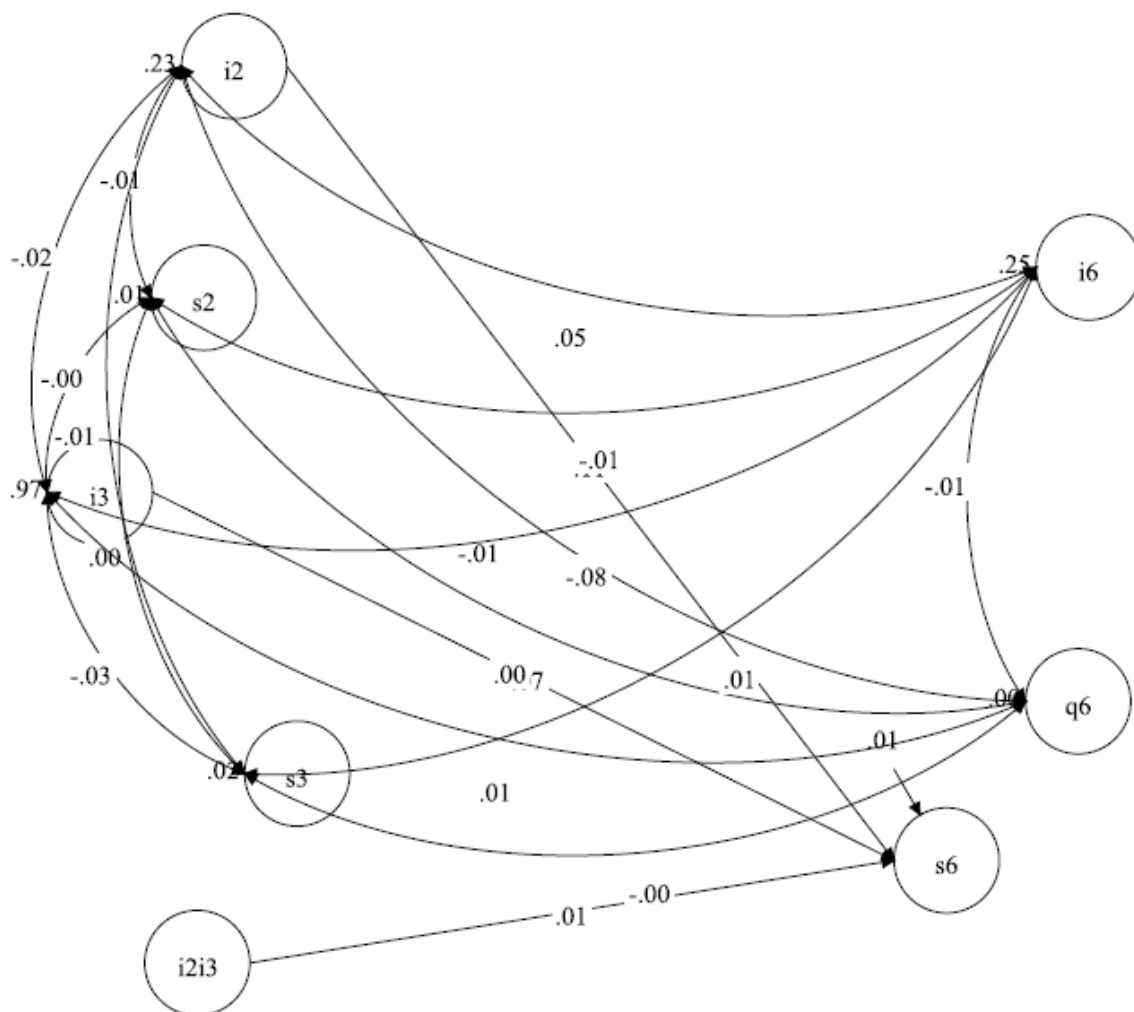
*Figure 19.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in perceived police discrimination and initial status in Mexican orientation predicting linear growth in externalizing symptoms.





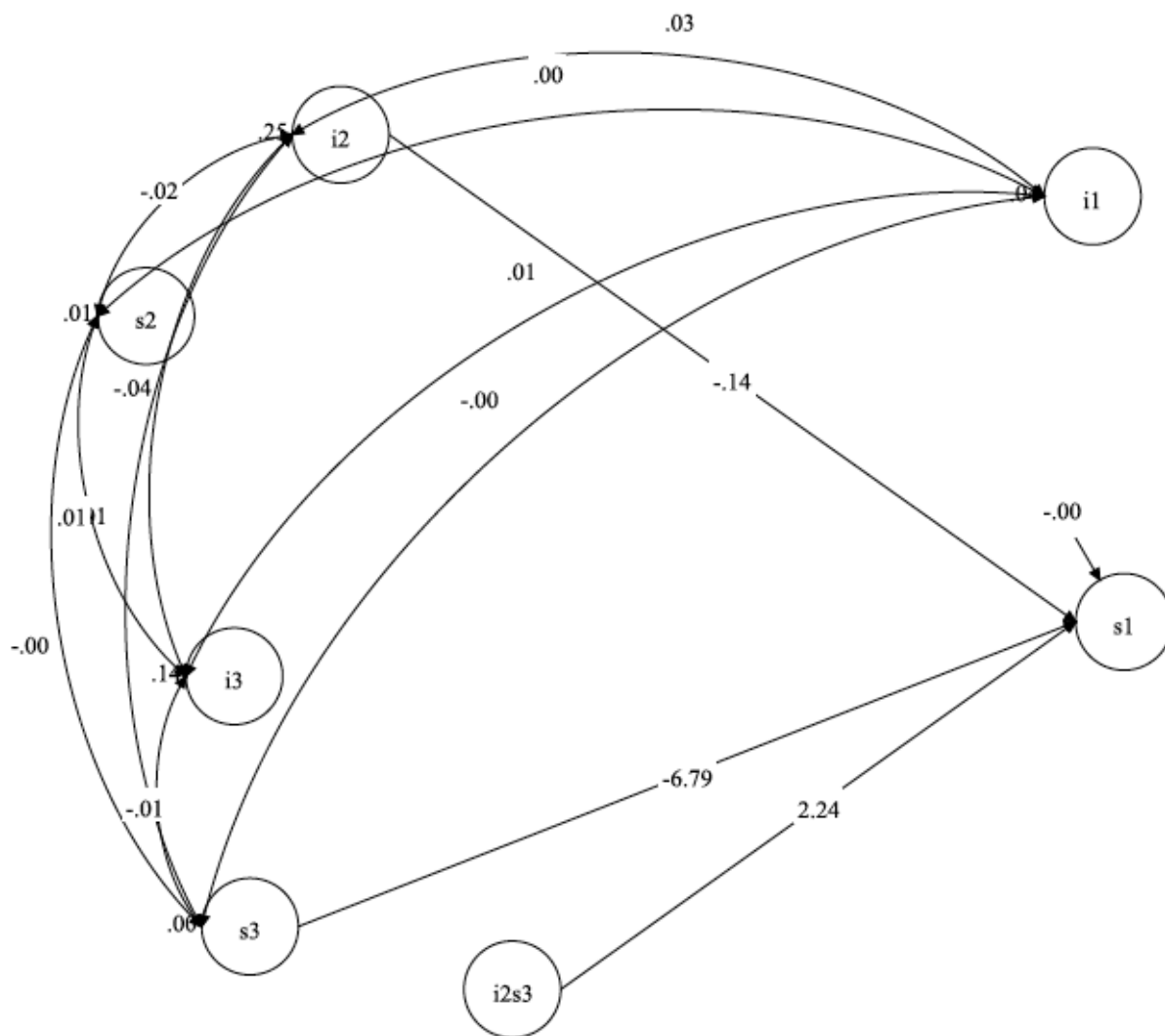
*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Internalizing symptoms; S1 = linear growth in Internalizing symptoms; i2 = baseline Perceived Police Discrimination; s2 = linear growth in Perceived Police Discrimination; i3 = baseline American orientation; s3 = linear growth in American orientation; i2i3 = interaction between initial status in Perceived Police Discrimination and initial status in American orientation.

*Figure 20.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in perceived police discrimination and initial status in American orientation predicting linear growth in internalizing symptoms.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Externalizing symptoms; S1 = linear growth in Externalizing symptoms; Q6 = quadratic growth in Externalizing symptoms; i2 = baseline Perceived Police Discrimination; s2 = linear growth in Perceived Police Discrimination; i3 = baseline American orientation; s3 = linear growth in American orientation; i2i3 = interaction between initial status in Perceived Police Discrimination and initial status in American orientation.

*Figure 21.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in perceived police discrimination and initial status in American orientation predicting linear growth in externalizing symptoms.



*Note.* Straight lines with an arrow indicate a directional relationship. Curved, double arrow lines indicate covariances. Indicators were not included for simplicity. I1 = baseline Internalizing symptoms; S1 = linear growth in Internalizing symptoms; i2 = baseline Perceived Police Discrimination; s2 = linear growth in Perceived Police Discrimination; i3 = baseline American orientation; s3 = linear growth in American orientation; i2i3 = interaction between initial status in Perceived Police Discrimination and linear change in American orientation.

*Figure 22.* Latent growth curve analyses of parallel process relationships with the interaction between initial status in perceived police discrimination and linear change in American orientation predicting linear growth in internalizing symptoms.

## APPENDIX C

### Sample Mplus Syntax

#### Unconditional Latent Growth Curve Model

TITLE: Pathways LGM Analyses

Data:

File is 'C:\Users\hdelossa\Desktop\baseline4.23blank.csv';

Variable:

Names are CASEID LINEID S4ETHN\_R AGE GENDER GENSTAT S4PJCOPO  
S4MOS S4AOS S4MEXAFF S4SPALNG S4ANGAFF S4ENGLNG S4QFSMK6  
S6PJCOPO S6MOS S6AOS S6MEXAFF S6SPALNG S6ANGAFF  
S6ENGLNG S6QFSMK6 S7PJCOPO S7MOS S7AOS S7MEXAFF S7SPALNG  
S7ANGAFF S7ENGLNG S7QFSMK6 S8PJCOPO S8MOS S8AOS  
S8MEXAFF S8SPALNG S8ANGAFF S8ENGLNG S8QFSMK6 S9PJCOPO S9MOS S9AOS  
S9MEXAFF S9SPALNG S9ANGAFF S9ENGLNG S9QFSMK6 T4BSIGSI1  
T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1 T4QFBRMO1  
T6QFBRMO1 T7QFBRMO1 T8QFBRMO1 T9QFBRMO1 T46MOUSE1  
T66MOUSE1 T76MOUSE1 T86MOUSE1 T96MOUSE1 T4SROPRV1  
T6SROPRV1 T7SROPRV1 T8SROPRV1 T9SROPRV1 T4SRSEND1  
T6SRSEND1 T7SRSEND1 T8SRSEND1 T9SRSEND1;

Missing are all (-99);

USEVARIABLES ARE

! AGE GENDER GENSTAT

!!!!INTERNALIZING VARIABLES!!!

T4BSIGSI1 T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1

MODEL:

!Intercept and slope for internalizing symptoms

I1 S1 | T4BSIGSI1 @0 T6BSIGSI1 @1 T7BSIGSI1 @2 T8BSIGSI1 @3 T9BSIGSI1 @4;

![T4bsigsi@0 T6bsigsi@0 T7bsigsi@ T8bsigsi@0 T9bsigsi@0 I1 S1];

! I1 S1 ON AGE GENDER GENSTAT;

ANALYSIS: TYPE = GENERAL;

OUTPUT: SAMPSTAT RESIDUAL MODINDICES(3.5) standardized STDY STDYX TECH1 TECH4;

PLOT: TYPE = PLOT3;

SERIES = T4BSIGSI1 T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1(\*);

#### Conditional Latent Growth Curve Model

TITLE: Pathways LGM Analyses

Data:

File is 'C:\Users\hdelossa\Desktop\baseline4.23blank.csv';

Variable:

Names are CASEID LINEID S4ETHN\_R AGE GENDER GENSTAT S4PJCOPO  
S4MOS S4AOS S4MEXAFF S4SPALNG S4ANGAFF S4ENGLNG S4QFSMK6  
S6PJCOPO S6MOS S6AOS S6MEXAFF S6SPALNG S6ANGAFF  
S6ENGLNG S6QFSMK6 S7PJCOPO S7MOS S7AOS S7MEXAFF S7SPALNG  
S7ANGAFF S7ENGLNG S7QFSMK6 S8PJCOPO S8MOS S8AOS  
S8MEXAFF S8SPALNG S8ANGAFF S8ENGLNG S8QFSMK6 S9PJCOPO S9MOS S9AOS  
S9MEXAFF S9SPALNG S9ANGAFF S9ENGLNG S9QFSMK6 T4BSIGSI1  
T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1 T4QFBRMO1  
T6QFBRMO1 T7QFBRMO1 T8QFBRMO1 T9QFBRMO1 T46MOUSE1  
T66MOUSE1 T76MOUSE1 T86MOUSE1 T96MOUSE1 T4SROPRV1  
T6SROPRV1 T7SROPRV1 T8SROPRV1 T9SROPRV1 T4SRSEND1  
T6SRSEND1 T7SRSEND1 T8SRSEND1 T9SRSEND1;

Missing are all (-99);

```

USEVARIABLES ARE
  AGE GENDER GENSTAT
  !!!!INTERNALIZING VARIABLES!!!
  T4BSIGSI1 T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1
MODEL:
  !Intercept and slope for internalizing symptoms
  I1 S1 | T4BSIGSI1 @0 T6BSIGSI1 @1 T7BSIGSI1 @2 T8BSIGSI1 @3 T9BSIGSI1 @4;
  ![T4bsigsi@0 T6bsigsi@0 T7bsigsi@ T8bsigsi@0 T9bsigsi@0 I1 S1];
  I1 S1 ON AGE GENDER GENSTAT;
ANALYSIS: TYPE = GENERAL;
  OUTPUT: SAMPSTAT RESIDUAL MODINDICES(3.5) standardized STDY STDYX TECH1 TECH4;
  PLOT: TYPE = PLOT3;
  SERIES = T4BSIGSI1 T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1(*);

```

Parallel Process Latent Growth Curve Model

TITLE: Pathways LGM Analyses

Data:

File is 'C:\Users\hdelossa\Desktop\baseline4.23blank.csv';

Variable:

Names are CASEID LINEID S4ETHN\_R AGE GENDER GENSTAT S4PJCOPO  
 S4MOS S4AOS S4MEXAFF S4SPALNG S4ANGAFF S4ENGLNG S4QFSMK6  
 S6PJCOPO S6MOS S6AOS S6MEXAFF S6SPALNG S6ANGAFF  
 S6ENGLNG S6QFSMK6 S7PJCOPO S7MOS S7AOS S7MEXAFF S7SPALNG  
 S7ANGAFF S7ENGLNG S7QFSMK6 S8PJCOPO S8MOS S8AOS  
 S8MEXAFF S8SPALNG S8ANGAFF S8ENGLNG S8QFSMK6 S9PJCOPO S9MOS S9AOS  
 S9MEXAFF S9SPALNG S9ANGAFF S9ENGLNG S9QFSMK6 T4BSIGSI1  
 T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1 T4QFBRMO1  
 T6QFBRMO1 T7QFBRMO1 T8QFBRMO1 T9QFBRMO1 T46MOUSE1  
 T66MOUSE1 T76MOUSE1 T86MOUSE1 T96MOUSE1 T4SROPRV1  
 T6SROPRV1 T7SROPRV1 T8SROPRV1 T9SROPRV1 T4SRSEND1  
 T6SRSEND1 T7SRSEND1 T8SRSEND1 T9SRSEND1;

Missing are all (-99);

USEVARIABLES ARE

AGE GENDER GENSTAT

!!!!INTERNALIZING VARIABLES!!!

T4BSIGSI1 T6BSIGSI1 T7BSIGSI1 T8BSIGSI1 T9BSIGSI1

S4MOS S6MOS S7MOS S8MOS S9MOS;

MODEL:

```

  !Intercept and slope for internalizing symptoms
  I1 S1 | T4BSIGSI1 @0 T6BSIGSI1 @1 T7BSIGSI1 @2 T8BSIGSI1 @3 T9BSIGSI1 @4;
!Intercept and Slope for MEXICAN ORIENTATION !!!!!!!
  I3 S3 | S4MOS@0 S6MOS@1 S7MOS@2 S8MOS@3 S9MOS@4;
  I3 with S3;
I1 ON I3;
  I1 with S3;
  S1 on I3;
  S1 on S3;
  I1 S1 ON GENDER GENSTAT AGE;
GENDER with GENSTAT @0;
  GENDER with AGE@0;
  GENSTAT with AGE@0;
ANALYSIS: TYPE = GENERAL;
  ITERATIONS = 3000
  OUTPUT: SAMPSTAT RESIDUAL MODINDICES(3.5) standardized STDY STDYX TECH1 TECH4;
  PLOT: TYPE = PLOT3;

```