Open Access Theses & Dissertations

2016-01-01

# The Impact Of Bicultural Identity On Perceptions Of Self-Efficacy

Miriam J. Alvarez
*University of Texas at El Paso*, mjalvarez2@miners.utep.edu

THE IMPACT OF BICULTURAL IDENTITY ON PERCEPTIONS OF SELF-EFFICACY


MIRIAM JOSEPHINE ALVAREZ

Master's Program in Psychology


APPROVED:

---
Michael A. Zárate, Ph.D., Chair

---
Craig A. Field, Ph.D.

---
Ana I. Schwartz, Ph.D.

---
Maria C. Morales, Ph.D.

---
Charles Ambler, Ph.D.
Dean of the Graduate School

## Dedication

To my parents, Maria and Raul, my sister Teresa, and my brother Raul. Thank you for your unconditional love and support. Mom and Dad, although you always stressed the importance of education, the greatest lessons have come from you. Sister and Brother, thank you for inspiring me with your brilliance and kindness. Finally, to Julian. Thank you for your patience, support, and love.

THE IMPACT OF BICULTURAL IDENTITY ON PERCEPTIONS OF SELF-EFFICACY

by

MIRIAM JOSEPHINE ALVAREZ, BA

Presented to the Faculty of the Graduate School of

The University of Texas at El Paso

in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF ARTS

Department of Psychology

THE UNIVERSITY OF TEXAS AT EL PASO

May 2016

## Acknowledgements

Dr. Michael Zárate, thank you for your help and guidance. Also, thank you for keeping me focused, challenging my ideas, and constantly encouraging my learning. To my lab mates - Amber, Brandt, Stephanie, Scott, Luke and Corin. Y'all have been crucial to my learning as you challenge my ideas, guide me when I am confused, and always lend an ear when things get hard. I appreciate all your help! Finally, to my committee members, Dr. Schwartz, Dr. Field and Dr. Morales. Thank you for your feedback and support throughout this project.

## Abstract

The primary aim of the proposed research was to investigate the role cultural identity plays in regards to academic perceptions, goals, and motivation amongst bicultural college students. Previous research suggests that biculturals experience shifts in mental frames as they navigate differences in cultural settings. Central to this research is the idea that people who have access to multiple cultural meaning systems switch between culturally appropriate behaviors depending on the context. We hypothesize that biculturals' responses to cultural cues involve more than automatic cognitive processes. Cultural frameworks may depend on their motives to embrace or reject particular cultural identities and multiple identities may provide multiple resources to draw from. The present research experimentally manipulated the role of identity salience to investigate how it influences academic self-perception, goals, and motivations. Results found that identity alone predicts positive academic self-perceptions. In addition, a secondary aim of this proposal was to explore the role of bicultural identity on self-complexity.

# Table of Contents

Manuscript Sections

## List of Tables

# List of Illustrations

# List of Figures

<center>**Introduction**</center>

As the US' population grows, its demographics are becoming increasingly diverse. This demographic shift is shaping a new chapter of American history to the extent that demographic diversity is reaching every state of the nation. Consequently, record shares of people have begun self-identifying as multicultural (Passel, Livingston, & Cohn, 2012). This transformation has directly impacted the growing number of opportunities for multicultural individuals (e.g. education initiatives and immigration policies). One such area that is of importance is in education, where an increasing number of institutions are dedicated to increasing the number of ethnic minorities enrolled in traditionally white colleges and universities. As a result, college enrollment has shown growth among all ethnic groups during 1996 to 2012 (Krogstad & Fry, 2014). Additionally, the Pew Research Center has reported that Blacks, Whites, and Hispanics overwhelmingly support affirmative action designed to increase diversity (Drake, 2014). Though cultural identity research has addressed some questions regarding perceptions of self-efficacy amongst individuals that highly identify with *one* culture, the impact of possessing two cultural frameworks of reference on academics lacks attention. This is partly due to the complexity of bicultural identities. The present project seeks to utilize identity models to investigate the role of bicultural identities on perceptions of self-efficacy. The direct applicability of bicultural identity theoretical frameworks on daily behaviors has the potential to influence legislation and education policies that highlight the benefits biculturalism in an educational setting.

### 1. 1 Foundation of Bicultural Identity Research

Berry (1984) introduced four ideologies that describe the processes of cultural adaptation for individuals with multiple cultural systems. His framework details four ideologies that an individual may adopt when coming in contact with interacting cultures. The four ideologies are

<center>1</center>

assimilation, separation, marginalization, and integration (or biculturalism). Assimilation proposes that individuals relinquish their ethnic identity to adapt to the norms of the mainstream culture. In contrast, separation proposes that an individual will maintain his or her own cultural identity and reject involvement with the host country. The third ideology, marginalization, refers to situations when an individual does not identify with or participate in his or her own culture or the host culture. Finally, integration proposes that individuals maintain his or her own cultural identity while at the same time becoming an active participant of the host culture. Assimilation and separation ideologies have been a primary focus point for researchers investigating the interaction between cultural identity and the exposure of a new culture. As the number of individuals who identify as belonging to multiple ethnic groups increases, the framework used to understand identity has changed. The models of acculturation strategies have fallen short in providing substantial characterizations of the experiences of bicultural individuals. For this reason, many researchers have begun developing complex models that investigate the possible interaction of two identities.

**1.2 Historical and Current Research on Biculturalism**

Many researchers describe biculturals as people who have access to multiple cultural meaning systems (LaFromboise, Coleman, & Gerton, 1993; Birman, 1994; Ramirez, 1984; Phinney & Devich-Navarro 1997; Benet-Martínez & Haritatos, 2005). Typically, biculturalism is facilitated by specific environments. These environments are usually composed of an ethnic and mainstream culture where cultural cues are readily available for both. These environments have competing cues which, lends itself for day-to-day interactions with more than one culture. As an outcome, individuals interact with two or more cultures and in these situations biculturalism is most likely to emerge as a function of these interactions. Over time, this bicultural context may

(a) produce competing cultural reference systems where individuals alternate between cultures as a function of the environment or (b) evolve and incorporate elements from both cultures creating one blended identity. Phinney and Devich-Navarro (1997) defined these two types of biculturals as alternating and blended. The following sections will provide additional historical context that will describe and discuss the differences between these two types of biculturals.

### 1.2.1 Alternating Identity

Cultural Frame Switching (CFS) proposes that people adapt to situations based on relevant schemas that have been developed through various cultural interactions and experiences (Benet-Martinez, Leu, Lee, & Morris, 2002). CFS occurs when an individual who is bicultural identifies with two cultures and alternates between two cultural interpretive frames in response to cues in the social environment. Alternating bicultural individuals shift their behaviors to be consistent with the cultural context of the situation. Experimentally, this means that exposure to cues such as symbols (e.g., flag, icon, language), norms, values and beliefs (e.g., roles, goals, and expectations) that are unique to one culture can predict behavior congruent with the primed identity. Benet-Martinez and colleagues (2002) tested this by showing Chinese-Americans an animated fish display and asked: "Why are the single fish and the group of fish swimming apart?" Results revealed that Chinese-American biculturals primed with American identity responded with higher ratings of the following statement, "the one fish is influenced by some internal trait (such as independence, personal objective, or leadership)" which served as a measure of internal attribution. A different effect was found for Chinese-Americans primed with Chinese identity, who responded with higher scores to the statement measuring of external attribution, "the one fish is being influenced by the group (e.g., is being chased, teased, or pressured by others)"(Benet-Martinez, Leu, Lee, & Morris, 2002). The relevance of these

findings support the idea that Western and Chinese cultures rely on different traits that guide an individual's behavior. These traits are known as individualism and collectivism. Individualist cultures make more internal attributions and emphasize personal achievement. Whereas collectivist cultures emphasize group goals above individual needs or desires, making more external attributions. More specifically, internal attributions are congruent with Western behaviors. Overall, the distinctions between mainstream and ethnic cultures experienced by a bicultural individual are real. This suggests that mainstream and ethnic identities are "activated" as cues and experiences in the environment trigger certain preferences for a specific cultural frame. Thus, a bicultural individual moves as appropriate, alternating frames through different experiences.

**1.2.2 Blended Identity**

In comparison to alternating frameworks, blended bicultural individuals select various methods of integrating their two cultures, including behaving biculturally in most situations. Individuals with blended identities might describe their experiences with being bicultural as having the "best of both worlds." An individual whose identity is blended and identifies with both cultures typically incorporates both cultures into their everyday life exhibiting behavior competency in both cultural spheres. Recently, the literature redefined blended (or often referred to as fused) labels as experience specific (Benet-Martinez & Haritatos, 2005). For example, a unique identity is formed when an individual sees himself/herself as a unique culture of Mexican-American that is independent of both Mexican and American cultures. This process does not imply explicit awareness of one's identity, meaning that an individual may or may not be aware of the blending process that occurs in day-to-day interactions and experiences (Roccas & Brewer, 2002).

**1.3 Complementary and Oppositional Cultural Identities**

Independent of possessing an alternating versus blended identity, each individual differs in their subjective perception of the relationship between their ethnic and mainstream cultures. More specifically, the relationship between two cultural interpretive frames can either be compatible or oppositional. This relationship impacts the extent to which an individual experiences positive health, cognitive, and psychological outcomes, as these relationships can be complimentary or oppositional as it can enhance the individuals' ability to integrate their two cultural demands with low or high levels of tension.

The relationship between two cultures is often described by biculturals as being complementary (Cheng, Lee, Benet-Martinez, 2006). An individual with complementary identities might describe their experiences with being bicultural as "equally contributing." Subsequently, individuals who identify with both cultures incorporate both cultures into their everyday life by exhibiting behavior competency in both cultures. For this reason, individuals with complementary ethnic and mainstream identities are more likely to display lower levels of neuroticism and greater levels of openness, agreeableness, and extraversion (Haritatos &Benet-Martinez, 2002).

In comparison, individuals who view their ethnic and mainstream cultures as oppositional are highly aware of the discrepancies, which cause internal conflict (Benet-Martinez, Leu, Lee, & Morris, 2002). This internal conflict results in a disassociation with both cultures, which leads to the identification of either their ethnic or mainstream culture the majority of the time (Cheng, Lee, Benet-Martinez, 2006). This contradictory integration of two cultures is due to the idea that individuals with two identities are constantly faced with the challenge of integrating different sets of cultural demands and messages that are often conflicting with interpersonal expectations.

For example, take an individual who identifies as both Mexican and American. He or she might have two aspects of the self that are important – family and school. Because he or she views their identity as oppositional, in a situation where both aspects demand attention (family and school) the individual would be more likely to tend to one aspect, which might be a function of the environment. Consequently, individuals with oppositional cultural identities experience the opposite effects of those with complementary (Haritatos &Benet-Martinez, 2002).

**1.4 Bicultural Identity Integration**

Phinney and Devich-Navarro (1997) are credited for advancing the field of bicultural identity research by empirically testing the theoretical propositions regarding the types of bicultural individuals mentioned above. Their research found support for two types of bicultural individuals – blended and alternating. Although the two types feel positively about their two cultures, alternating bicultural individuals tend to feel more conflicted about having two cultures whereas blended bicultural individuals do not. Despite their noteworthy contribution to the literature of identity, there is one limitation of Phinney and Devich-Navarro's typologies. Conceptually, the label "alternating" refers to the ability to engage in cultural frame switching. Furthermore, the label "blended" refers to the way an individual sees his or her identity. For example, a bicultural individual may see his or her identity as Mexican-American - an integration of both Mexican and American cultures, which can be theoretically described as an identity-related aspect of the bicultural experience. However, it can also be the case that an individual who is Mexican American alternates between speaking English and Spanish depending on the context. A bicultural individual may possess a blended identity and alternate between cultural frames. An example of this would be a bicultural individual who has a blended identity and usually speaks English at school and Spanish at home. For this reason, a person with
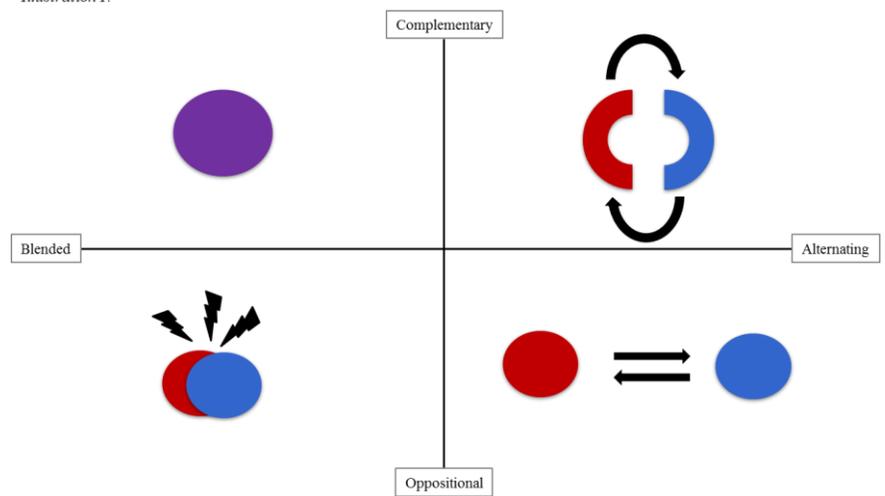
compatible identities, navigating through unfamiliar or "tough" situations might be easier than for an individual who views his or her identities as oppositional. Considering the example just presented, the typologies of Phinney and Devich-Navarro and bicultural researchers before them confound identity and behavior.

To address the limitations of the biculturalism literature, Benet-Martinez, Leu, Lee, and Morris (2002) introduced the concept of Bicultural Identity Integration (BII). Variations in Bicultural Identity Integration levels are associated with cognitive complexity and social behavior. In a study conducted by Benet-Martinez et al. (2006), Chinese American students were asked to describe American, Chinese, or neutral landscapes, and results revealed that individuals low on Bicultural Identity Integration expressed more cognitively complex representations of culture as they provided more abstract and dense descriptions of their cultures than did those high on Bicultural Identity Integration. It is important to note that when compared to monocultural individuals, bicultural individuals provided cultural descriptions that were higher in density and abstractness. This suggests that despite the variations in cognitive complexity between bicultural individuals high and low in Bicultural Identity Integration, possessing two cultural reference systems yields benefits in terms of cognitive complexity. Finally, differences in high or low Bicultural Identity Integration extends to social networks (Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygun, 2007). In an investigation with Chinese-Americans, findings revealed that the social networks of individuals low in Bicultural Identity Integration include more mainstream culture friends. Altogether, the literature suggests that the relationship between the two identities has important implications for bicultural individuals' adjustment, cognition, and behavior.

More recently, improvements to the original scale have led to the BII-II (Huyhn, 2009). This measure of Bicultural Identity Integration was designed to "capture the variations among bicultural individuals in the degree to which they perceive their mainstream and ethic identities as compatible versus oppositional and difficult to integrate" (Chen, Benet-Martinez, & Bond, 2008). Bicultural Identity Integration research suggests that the perception of ethnic and mainstream identities is composed of two different and independent components: (1) blendedness versus compartmentalization and (2) harmony versus conflict (Benet-Martinez, et al., 2005). Cultural blendedness can be described as the extent to which an individual perceives his or her cultural orientations as dissociated or overlapping – subjective distance. For example, "I see myself as a Mexican in the United States" vs. "I am Mexican-American." Cultural harmony is the degree of tension or clash versus compatibility perceived between the two cultures. For example, "I do not see conflict between the Mexican and American ways of doing things" and "I feel trapped between the two cultures."

*Illustration 1.*



Both components of bicultural identity integration are orthogonal, meaning that a bicultural individual can possess any combination of high or low blendedness and high or low harmony (see figure 1). This relationship is important as it predicts distinct outcomes making each combination unique. More generally, lower blendedness is associated with lower openness to new experiences, language barriers, and living in more culturally isolated surroundings.

Additionally, higher scores on blendedness are positively associated with openness, low neuroticism, and reduced perceptions of social pressures, stress, and discrimination. Furthermore, lower harmony is associated with higher neuroticism, perceived discrimination and more strained intercultural relationships (Benet-Martinez & Haritatos, 2005). It is also the case that harmony is related to acculturation, such that "individuals who only endorse one set of values perceive more harmony between their cultures than those who endorse both sets of cultural values" (Nguyen, Huyhn, & Benet-Martinez, 2010).

## 1.5 Bicultural identity and education

In general, research investigating how biculturalism impacts academic motivation, goals and self-perception is limited. However, the research described above provides a framework to empirically investigate the relationship of bicultural identity on education. The following paragraphs will utilize Bicultural Identity Integration and Cultural Frame Switching ideologies as a fundamental framework to understand the processes and potential outcomes of college students who engage with two cultural reference systems on a daily basis. Before making any predictions about the way Bicultural Identity Integration influences academics, one must look at previous research on cultural and mainstream identity as it can provide a substantial base to enhance our understanding of the applied outcomes of experiencing two identities.

Separation and assimilation ideologies have been used with less frequency in the study of the experiences of bicultural individuals. However, investigating these ideologies has helped researchers understand the consequences of endorsing one of the two adaptation strategies. As a result, investigations that include the interaction between cultural identity and the adoption of assimilation or separation ideologies yield different perceptions of self-efficacy outcomes for individuals. For example, Smalls, White, Chavous and Sellers (2007) discovered that individuals

who endorse assimilating into the majority culture express greater fears of being viewed as high achievers by peers, have lower academic persistence, and are more likely to have school behavioral problems. In contrast, researchers have begun to conceptualize racial identity as an important resilience resource in the academic development of bicultural individuals. For example, highlighting commonalties with a minority group has been related to positive engagement outcomes (Smalls, et.al, 2007). More specifically, Smalls (2007) demonstrated that the ways an individual experiences his or her identity can have important implications on their perceptions of self-efficacy. If an individual focuses only on his or her mainstream identity, he or she can experience detrimental educational outcomes. In contrast if he or she is aware of his or her ethnic identity, they might experience more positive outcomes. Additional research supporting these findings suggests that identity centrality and ideology, as measured by the Multidimensional Inventory of Black Identity (Sellers, Rowley, Chavous, & Shelton, & Smith, 1997), are positively and negatively associations with grade point average. More specifically, the extent to which an individual's racial ideology emphasizes similarities between African-Americans and other minority groups was positively associated with GPA for students who highly identify with their racial identity (Sellers, Chavous, & Cooke 1998).

Contradictory to these findings in a study with Black-White biracial individuals, priming White identity elicited stereotype boosts that increased performance in a verbal section of the Graduate Record Examination (GRE). Participants primed with a White identity performed better than Black-primed and control participants (Gaither, Remedios, Schultz, & Sommers, 2015). Building on this research, it might be easy to conclude that parents and educators should remind students of multiethnic backgrounds of the associations and benefits of identifying with a mainstream group. However, because findings are mixed, the consequences of this can be

detrimental as it might encourage negative behavior such as racism. Specifically, Branscombe, Schmitt, and Schiffhauer (2007) demonstrated that individuals experimentally assigned to learn about White privilege expressed greater racism in comparison to those assigned to learn about a disadvantage or a race-irrelevant topic. These findings suggest that high identification with a historically privileged group can increase expressions of racism towards out-group members. Incorporating the interaction of dual identities when conducting research with individuals who possess two cultural reference systems can reduce the discrepancy between findings. This contribution to the literature can provide a unique understanding that may potentially unify the competing ideas that emerge from investigating the effects of a unidimensional identity and ultimately generate a more efficient multidimensional identity model.

## 1.6 Broader impact of bicultural identity and education

Minorities in American society are often stereotyped and their performance in academic contexts can be harmed by the awareness that their behavior might be viewed through the lens of racial stereotypes (Steele & Aronson, 1995). For example, Latinos are often characterized as undervaluing education. However, the Pew Research Center reported that the number of Latinos ages 18 to 24 enrolled in two- or four-year colleges has more than tripled since 1993. In 2013, 2.2 million Hispanics were enrolled in college, up from 728,000 in 1993 – a 201% increase. In addition, the Latino high school dropout rate has dropped significantly; the dropout rate plummeted from 32% in 2000 to 14% in 2013, which is a record low (Lopez, & Fry, 2013). Could the integration of ethnic and mainstream identities contribute to the increasing number of Latinos ages 18 to 24 enrolled in two- or four-year colleges?

Even with noteworthy improvements in educational attainment among Latinos, the minority group is still lagging behind other groups when it comes to attaining a four-year degree.

As America becomes more diverse, we must consider not only the ethnic identity of an individual but also the interaction of that identity with a mainstream identity. More specifically, there is limited research that addresses the interaction of multiple identities and how it might potentially contribute to the continuation of Latinos in college. Benet-Martinez and colleagues have shown that bicultural identity is more complex than simply accepting or relinquishing one's ethnic identity (or mainstream) identities. So, how do individuals incorporate and experience these cultural reference systems? Additionally, how do these experiences shape their experiences in school?

The literature on cultural frame switching and bicultural identity integration suggests that, at a basic level, bicultural individuals engage in two or more cultures, merging two cultures or adopting one culture in place of another depending on specific cues or schemas. This engagement/disengagement becomes more complex as the individual navigates and experiences different situations where the preexisting cultural frames conflict. For example, take two individuals who identify with two cultures. One individual views his or her identities as blended, while the other one views his or hers as alternating. Additionally, individuals can view their identities as complementary (or harmonious) or oppositional. In a situation that involves dealing with social pressures, the interaction of these two identity components can yield different outcomes. For example, in a situation where one needs to attend to family and academic responsibilities, the individual whose identities are alternating and compatible (alternating x compatible) might navigate through this experience with ease, as his or her identity functions as a multi-faceted mechanism that allows the individual to approach the situation with minimal stress. However, conflicting blended of identities (blended x oppositional) can potentially produce stress and can elicit negative responses to situations involving cultural stereotypes for

the individual. One potential reason why individuals experience these different outcomes might be because they possess different levels of self-complexity.

Self-complexity is a term that refers to a person's perceived knowledge of oneself, based upon the number of distinct cognitive structures, or self-aspects, they believe themselves to possess (Linville, 1985). For example, a bicultural individual might organize knowledge about his or herself in terms of an assortment of social roles (student, friend, daughter, mother, and soccer player) or kinds of interpersonal relationships (teammate, contestant, and fan). Self-complexity is a function of two things: the number of aspects that one uses to cognitively organize knowledge about the self, and the degree of relatedness of these aspects. The greatest degrees of complexity occurs with a large number of aspects that are totally independent, while the lowest degrees of complexity occur with a small number of aspects that are totally interdependent. Research suggests that self-complexity has important implications in the way an individual experiences the environment, as high self-complexity often serves as a buffer against the negative effects of stressful life events (McConnell, Strain, & Rydell, 2009).

Incorporating Bicultural Identity Integration and Self-Complexity ideologies can provide a unique contribution to the bicultural identity literature. Specifically, bridging the two bodies of literature can expand on the processes different types of identities (blended x oppositional vs. alternating x compatible) experience in terms of self-complexity. For example, an individual whose identity is alternating and complimentary might possess high self-complexity as his or her aspects are not interdependent due to the continuous shifting between cultural reference frames. In comparison, an individual whose identity is blended and conflicting might be lower on self-complexity due to the high overlap between the two identities. Interestingly, one can argue that self-complexity is the driving factor of the individual's perceptions of his or her identities. Thus,

13

high levels of self-complexity should theoretically yield identities that are alternating and complimentary, producing the ultimate benefits for biculturals in terms of health, behavior, and perceptions of self-efficacy.

**1.7 Goals of the Current Study**

Currently, it is known that identity (mainstream or ethnic) produces different outcomes relating to academic motivation, goals and self-perception, yet the interaction of multiple identities has yet to be manipulated and tested. Bicultural Identity Integration and Cultural Frame Switching provide a strong foundation to investigate how people with more than one cultural identity manage and experience academic motivation, goals and self-perception. Research demonstrates that there are multiple advantages for biculturals. As was reviewed earlier, Benet-Martinez et.al (2006) demonstrated that biculturals are higher in cognitive complexity in comparison to monoculturals. Furthermore, incorporating self-complexity will provide a unique understanding about the way a bicultural individual perceives knowledge of his or herself, based upon the number of distinct self-aspects. More specifically, high self-complexity should produce low blendedness and high harmony, as these individuals have a lower number of aspects that are interdependent. Meaning that individuals with a greater number of aspects who possess alternating identities that are complimentary should benefit the most from possessing two identities.

This project seeks to investigate how bicultural identity influences important factors that promote and lead to increased perceptions of self-efficacy. The University of Texas at El Paso is an ideal institution to conduct this research because it is a border community and the student population closely mirrors the demographics of the region. The majority of the students identify themselves as Latino and are residents of El Paso country. The current investigation seeks to

examine how bicultural identity integration moderates the relationship between identity and academic self-perception, academic goals, and academic motivations. In addition, we seek to investigate differences in self-complexity and the impact on the academic outcomes mentioned above.

**1.7.1 Hypotheses**

The primary aim of the proposed study is to investigate the effects of biculturalism on academic outcomes and self-conceptualizations between those with high blendedness and low blendedness and high harmony and low harmony as measured by the BII-2.

Hypothesis 1: Participants in the American experimental condition will demonstrate higher scores on academic self-perception, goals, and motivations compared to participants in the Mexican experimental condition.

Hypothesis 2: Individuals in the Mexican-American condition who score low on blendedness and high on harmony will exhibit the highest scores on the academic self-perception, goals, and motivation.

Hypothesis 3: The relationship between the cultural prime and academic outcome will be moderated by Bicultural Identity Integration. Individuals who perceive their two identities as alternating and harmonious will demonstrate the highest academic self-perception, goals, and motivations. In comparison, individuals who score high on blendedness and low on harmony will demonstrate the lowest academic self-perception, goals, and motivations across all experimental conditions.

Hypothesis 4: Participants in the Mexican-American experimental condition will express the highest degree of self-complexity in comparison to individuals in the Mexican and American experimental conditions. More specifically, individuals who score low on blendedness and high

15

on harmony will have the highest self-complexity as they have less interdependent groups representing more complex identifications of the self.

**Methods**

## 2.1 Design

The proposed research investigated the effects of cultural identity on academic self-perception, goals, and motivations. The study was an experimental single factor design with three levels that investigated cultural differences in perceptions of self-efficacy for students primed with American, Mexican, and Mexican-American cultural identities. Participants were randomly assigned to either Mexican, American, or Mexican-American condition in which they were asked to list and describe specific things they like about the cultural identity they were assigned.

## 2.2 Participants

Two statistical power analyses were performed for sample size estimation. Based on previous research, (Benet-Martinez, et.al, 2005; Benet-Martinez, et.al, 2006) the estimated effect size involving the relationship between Bicultural Identity Integration and cognitive complexity was an eta squared equal to 0.16, which is considered to be large using Cohen's (1988) criteria. The two power analyses were conducted as follows: (a) power analysis in regression testing Ho: $\rho^2=0$ (testing whether the population squared multiple correlation was different from zero), and (c) G*Power sample size estimation for a single factor design with three levels. All of the power analyses were tested with power=.85 and $\alpha=.01$. The first power analysis of the overall regression model testing Ho: $\rho^2=0$ where we expected to find an effect size of 0.097 yielded a sample size of 144. Using G*Power computer software, the second power analysis yielded an N = 150.

A sample of 207 undergraduate students from Introduction to Psychology classes who were recruited through the University of Texas at El Paso's SONA system. To test our main hypotheses of biculturalism, only participants who were over the age of 18 ($M = 22.31 \pm 13.96$)

and self-identified as Hispanic, Latino, or Mexican-American were included in the analysis. The resulting total number of participants was N=181. Fifty-six participants were male and the remaining 125 were female. The majority of the participants self-identified as Mexican-American (68 %). The remaining participants self-identified as Hispanic/Latino (other than Mex-American) (27%) and Hispanic and Caucasian (9%).

**2.3 Materials**

**2.3.1 Cultural Identity Prime**

Participants were randomly assigned to one of three conditions – either Mexican, American, or Mexican American experimental condition. In the Mexican and American conditions, participants created a list and described things (i.e., symbols, traditions, customs, and/or ideas) they liked about the assigned culture. Participants were asked to list only characteristics that are unique to the condition. Similarly, in the Mexican-American condition participants were asked to create a list and describe specific things (i.e., symbols, traditions, customs, and/or ideas) they like and uniquely describe the assigned culture. The experimental conditions can be found in Appendix A.

**2.3.2 Bicultural Identity Integration Scale –Version 2**

Bicultural Identity Integration – Version 2, consisted of 19 items rated on a 5- point Likert-type scale (1 = strongly disagree, 5 = strongly agree) (Huynh, 2009). The scale is composed of two factors, blendedness and harmony. The blendedness subscale contains 9 times which includes items such as, "I feel part of a combined culture." In comparison, the harmony subscale contains 10 times such as, "I find it easy to balance both _____ and American cultures." The BII-2 that was utilized in the proposed study can be found in Appendix B.

**2.3.3 School Attitude Assessment Survey – Revised**

The academic outcome variables (academic self-perception and academic goals valuation) are subscales of the School Attitude Assessment Survey – Revised (McCoach & Del Siegle, 2003). The SAAS-R employs a 7-point Likert Type agreement scale. We retained the scale formatting for the employment of the two subscales mentioned above. The academic self-perception subscale is composed of eight questions that assess the individual's belief of his or her ability to succeed in school. The Self-Perception subscale includes questions such as "I can learn new ideas quickly in school" and "I am capable of getting straight A's." The second subscale used in the proposed study is a six-item measure of Goals Valuation. This subscale is designed to assess the goal and realization values of each participant as it can potentially affect their self-regulation and motivation. The two subscales that were utilized in the proposed study can be found in Appendix C.

A third scale was included to fully conceptualize and measure perceptions of self-efficacy - self-efficacy. The self-efficacy for self-regulated learning scale included 11 items that measured students' perceived capability to use a variety of self-regulated learning strategies (Bandura, 1989a). For each item, students rated their perceived self-efficacy according to a 7-point scale. The descriptions were not well at all for a rating of 1, not too well for 3, pretty well for 5, and very well for 7. A sample item of this subscale is, "How well can you finish homework assignments by deadlines?" The subscale that was utilized in the proposed study can be found in Appendix D.

**2.3.4 Self-Complexity**

Self-complexity was measured by the number and distinctiveness of attributes an individual used to think about his or herself. Subjects received a packet of 79 randomly ordered indexed cards, each containing the name of a trait or value. Subjects were asked to think about

themselves and to sort those traits and values that are descriptive of them into groups (or piles) according to which traits or values they think belong together. Each pile represented a different aspect of the self. The traits or values chosen for the task can represent a wide range of dimensions that students use to think about themselves, and include positive and negative traits and values. A self-complexity score was calculated for each subject, based on his or her trait sort. This score was adapted from Linville's (1985) self-complexity measure. The list of traits that was given to the students can be found in Appendix E.

## 2.4 Procedure

All participants were told that the study is about education. Experimental sessions began with participants being asked to provide informed consent. After signing the informed consent form, participants were randomly assigned into one of the three experimental conditions. The proposed study was completed with Qualtrics survey software and took place in the Psychology building at the University of Texas at El Paso during regular business hours. It was completed in a small computer room. The questionnaires were completed on a computer and data from the questionnaires were recorded on a secure server. The experiment took approximately 30-45 minutes to complete. Upon completion, participants were debriefed and released.

## 2.5 Analyses

To test the proposed hypotheses, we conducted four main analyses. Our first hypothesis aimed to investigate if participants in the American experimental condition demonstrated higher scores on academic self-perception, goals, and motivations compared to participants in the Mexican and Mexican-American experimental conditions. To test this hypothesis we conducted an analysis of variance, where condition (Mexican, American, Mexican-American) served as the

independent variable and academic self-perception, goals, and motivation served as the

dependent variables.

For our second hypothesis we wanted to investigate blendedness and harmony predicted

scores on the academic self-perception, goals, and motivation amongst participants in the

Mexican-American condition. To test this hypothesis, we conducted a multiple linear regression

with blendedness and harmony as independent variables and self-perception, goals, and

motivation served as the dependent variables.

Our third hypothesis aimed to expand on hypothesis one by examining the subscales of

bicultural identity integration (M1 and M2) as moderators of the relationship between the

identity prime (X) and academic outcome (Y: self-perception, goals, and motivation) across all

conditions. A multiple linear regression model was used to probe the interaction between our

independent variable and our moderators on academic self-perception, goals valuation, and self-

efficacy as the outcome variables. We tested each outcome variable separately but used the same

method for probing the interactions. In the first step of hierarchical regression we analyzed the

relationship between our identity prime and one of our three academic outcome variables. In the

second step of the regression, we added the Bicultural Identity Integration scale (BII-2), which

consists of the harmony and blendedness subscales. For the third step, we added the interaction

of the first and second step (condition prime by BII-2). In the case that there is a non-significant

$\Delta R^2$ for the second step (BII-2) and a significant $\Delta R^2$ for the third step (interaction), there will be

evidence that Bicultural Identity Integration might potentially moderate the relationship between

the identity and the academic attitudes. Thus, we will utilized Andrew Hayes application

PROCESS to obtain a region of significance to assess the simple slope for the effect of academic

attitudes on identity prime, treating harmony and blendedness (BII-2) as the moderators.

Altogether, hypothesis 1, 2, 3, and 4, were analyzed using SAS (PROC GLM SAS Version 9.4; REF). To test if the moderation predicted in hypothesis 3 exists, we will utilize Andre Hayes's PROCESS, which is an easy to use add-on for SPSS and SAS for statistical moderation analysis.

## Results

### 3.1 Reliability Analyses

All Cronbach Alpha reliability analyses were conducted using SAS Version 9.4. The reliabilities for the scales were obtained for each individual subscale. Regarding the perceptions of self-efficacy measures, reliability estimates for the self-perception subscale yielded an $\alpha$= 0.865. The goals valuation subscale yielded a reliability estimate of $\alpha$= 0.889. The self-efficacy reliability estimate was $\alpha$= 0.864. Additionally, the Bicultural Identity Integration II scale yielded the following reliability estimates for the two subscales: harmony $\alpha$= 0.719 and blendedness $\alpha$= 0.761. The two factors were associated ($r$(178)=0.387, p=.000).

The self-complexity measure was calculated by first dividing the total number of traits by the number of roles. Then we divided this number by the total number of traits that overlapped across roles plus one, ([Traits/Roles]/Overlap+1).

### 3.2 Condition effects on perceptions of self-efficacy variables

To test our first hypothesis the data was analyzed using an analysis of variance, where condition (Mexican, American, and Mexican-American) served as the independent variable and academic self-perception, goals, and motivation served as the dependent variables. The one-way analysis of variance to test the effect of each condition on the three perceptions of self-efficacy variables revealed non-significant results across all dependent variables (Self-perception, $F$(2, 179) = 2.46, $p$ = 0.08; Goals Valuation, $F$(2, 179) = 1.58, $p$ = 0.21; and Self-efficacy, $F$(2, 179) = 0.16, $p$ = 0.85. These results indicate that participants in the American condition did not score higher relative to the other two conditions, therefore, hypothesis one was not supported.

### 3.3 Bicultural identity integration: Effects of blendedness and harmony on the perceptions of self-efficacy variables

To test the second hypothesis, we conducted a multiple linear regression with blendedness and harmony as independent variables and self-perception, goals valuation, and motivation served as the dependent variables. These analyses included only individuals in the Mexican- American condition. The rationale behind this is that by priming two identities (Mexican and American) we should see the true effects of the interaction between the two identities - mainstream and ethnic. Results indicated non-significant results for all outcomes variables (Self-perception, $F$ (2, 55) = 0.04, $p$ = 0.957; Goals valuation, $F$ (2, 55) = 1.92, $p$ = 0.156; and Self-efficacy, $F$ (2, 55) = 0.63, $p$ = 0.536). These results indicate that score differences on blendedness and harmony do not predict an individual's academic self-perception, goals, and motivations across all experimental conditions.

**3.4 Harmony and Blendedness as moderators of the relationship between condition and perceptions or self-efficacy**

For hypothesis three, we examined the subscales of bicultural identity integration (M1 and M2) as moderators of the relationship between the identity prime (X) and Perceptions of self-efficacy variables (Y: self-perception, goals, and motivation) (Figure1). To test this moderation we first conducted a hierarchical regression for each outcome variable to probe for the interaction between identity prime condition and BII-2 (harmony and blendedness). For the purpose of clarity, the three moderation models will be labeled as A, which tests academic self-perception; B, which tests academic goals valuation; and C, which tests academic self-efficacy.

Moderation model A tested the moderating role of harmony and blendedness between identity prime condition and academic self-percetion (Figure 2). The first step of a hierarchal regression included identity prime on self-perception. This step was not significant ($R^2$ =.030, $F$ (2, 177) = 2.713, $p$ = 0.069). The second step added harmony and blendedness (BII-2) to the

regression model. There was a $\Delta R^2$ for the second step ($R^2$ =.081, $\Delta R^2$ =.051, $\Delta F$ (2, 175) = 4.883, $p$ = 0.009). In this case the change was statistically significant. Harmony and blendedness add significant predictive power in predicting self-perception after identity prime condition has been entered into the regression model. Specifically, increases in blendedness predict higher scores on self-perception ($\beta$=0.194, $SE$=0.063, $p$=.002). For the third step, we added the interaction of the first and second step (Condition by BII-2). There was a non-significant $\Delta R^2$ for the third step (interaction), which suggest that there is a lack of evidence to support the moderating role of harmony and blendedness between identity prime and the academic self-perception ($R^2$ =0.111, $\Delta R^2$ =0.030, $\Delta F$ (4, 171) = 0.930, $p$ = 0.219). Because the interaction was non-significant, we did not conduct any further analysis to test this moderation model.

Moderation model B tested the moderating role of harmony and blendedness between idenitiy prime and academic goals valuation (Figure 3). The identity prime condition variable was once again entered in the first step of the regression analysis. Blendedness and harmony were entered in the second step of the regression analysis. This step yielded a change in variance in the model, ($R^2$ =.068, $\Delta R^2$ =.051, $\Delta F$ (2, 175) = 4.797, $p$ = 0.009). Similar to moderation model A, the change is statistically significant. Harmony and blendedness add significant predictive power in predicting goals valuation after identity condition has been entered into the regression model. Specifically, increases in blendedness predict higher scores on self-perception ($\beta$=0.116, $SE$=0.041, $p$=.006). In the third step of the regression analysis, the interaction between condition and the BII-2 factors, blendedness and harmony, were entered. The third step was not significant. The results of each step are summarized in Table 4. Because the interaction was non-significant, we did not conduct any further analysis to test this moderation model.

Moderation model C tested the moderating role of harmony and blendedness between idenitiy prime condition and academic self-efficacy (Figure 4). The Identity Prime variable was once again entered in the first step of the regression analysis. Blendedness and harmony were entered in the second step of the regression analysis. In the third step of the regression analysis, the interaction between condition and the BII-1 factors (blendedness and harmony) were entered. Both step 2 and step 3 did not predict self-efficacy. The results of each step are summarized in Table 5. Because the interaction was non-significant, we did not conduct any further analysis to test this model.

In summary, we tested three moderations. All moderations were non-significant suggesting that score differences on blendedness and harmony do not affect academic self-perception, goals, and motivations across all experimental conditions.

## 3.5 Condition effects on self-complexity

To test the hypothesis that participants in the Mexican-American experimental condition who score low on blendedness and high on harmony will express the highest degree of self-complexity in comparison to individuals in the Mexican and American experimental conditions we conducted a multiple linear regression analysis. We predicted that low levels of blendedness and high levels of harmony as a function of condition would yield high scores on self-complexity, however we found that high levels of both harmony and blendedness as a function of condition resulted in high self-complexity, $F(11,179)= 2.04$, $p=.03$, $R^2=.12$. Examination of the means showed that participants in the American ($M_{American} = 1.12$) and Mexican-American condition ($M_{Mex-Am} = 1.06$) had higher self-complexity scores than those in the Mexican condition ($M_{Mexican} = 0.089$).

## 3.6 Post-Hoc Analysis

We followed up results of our third hypothesis by conducting a multiple linear regression including identity condition and blendedness and their interaction as predictors of perceptions of self-efficacy given that through our hypothesis we were able to see that blendedness was driving most of the effects found in our models. We tested identity condition and blendedness as predictors of the three perceptions of self-efficacy variables. Our first outcome variable was self-perception, which was predicted by identity condition, blendedness, and the interaction, $F(3,179)=3.75$, $p=.003$, $R^2=.10$. Examination of the means showed that participants in the American ($M_{American}=5.47$) and Mexican-American condition ($M_{Mex-Am}=5.66$) had lower self-perception scores than those in the Mexican condition ($M_{Mexican}=5.76$). Additionally, increases in blendedness led to increased self-perception. Thus, participants in the Mexican condition who scored high on blendedness had higher beliefs in his or her ability to succeed in school in comparison to the participants in the American and Mexican-American conditions.

Our second perceptions of self-efficacy outcome variable was goals valuation, which was also predicted by identity condition, blendedness, and the interaction, $F(3,179)=2.64$, $p=.025$, $R^2=.07$. Additionally, increases in blendedness led to increased goals valuation. Meaning that in comparison to the participants in the Mexican and Mexican-American conditions, participants in the American condition who scored lower on blendedness had higher goals and realization values which can potentially affect their self-regulation and motivation.

Finally, the relationship between identity condition, blendedness and the interaction did not predict academic self-efficacy, $F(3,179)=1.33$, $p=0.268$. A summary of descriptive statistics can be found in Table 2.

Upon request of the committee, one final exploratory analysis was conducted to further investigate the effect of blendedness. We asked participants where they were born and

participants responded with 1, if they were born in the United States; 2, if they born in Mexico; and 3, if they born in another country. Based on this demographic question, we conducted an analysis of variance to explore the relationship between nativity and perceptions of blendedness between their ethnic and mainstream identities. The analysis excluded participants who responded with 3 (N=5), as they did not meet our eligibility criteria. Additionally, only 15 participants specified they were born in Mexico. Despite our unequal distribution in groups, our exploratory analysis revealed that nativity (where a participant was born) predicted blendedness, $F(1,174)=9.10$, $p=.003$, $R^2=.05$. Examination of the means showed that participants who were born in the United States ($M_{US}=5.37$) had higher blendedness scores than those born in Mexico ($M_{Mex}= 4.61$).

**Discussion**

With increased globalized social structures, economies, and increased cultural interactions, an increasing number of individuals are identifying as bicultural. Scientists generally agree that ethnicity is more of a fluid concept influenced by current social and political thinking. This social demographic change has led to increased research on the effects of identity on behaviors that influence academic achievement and success. As described in this thesis, we sought to investigate the effects of biculturalism on academic outcomes and self-conceptualizations between those with blended/alternating and complementary/oppositional identities. We hypothesized that priming mainstream, ethnic, or both identities would predict difference scores on the three perceptions of self-efficacy outcome variables – self-perception, goals valuation, and self-efficacy. Results indicated that identity did not predict differences in an individual's perceptions of self-efficacy. However, our post hoc analyses revealed that those with blended identities experience greater perceptions of self-efficacy as a function of the identity that is most salient. These findings contradict research that suggests that an individual who solely focuses on his/her mainstream (American) identity can experience detrimental educational outcomes (Smalls, et.al, 2007). Additionally, this research supports findings that suggest priming ethnic identity can produce stereotype boost, which in turn can lead to a higher GPA for students who highly identify with their racial or ethnic identity (Sellers, Chavous, & Cooke 1998).

A central part of this thesis aimed to explore the relationship between two identities through the utilization of bicultural identity integration ideologies. This novel framework has served as a tool to tease apart the effects of each identity and explore how they influence different behaviors such as perceptions of self-efficacy. Our results suggest that the relationship between identity and is not moderated by blendedness and harmony. These finding contradict

29

previous research on bicultural identity integration. Participants high on harmony and blendedness do not tend to experience stresses and react to cultural cues in the environment in different ways than those low on harmony and blendedness (Haritatos & Benet-Martínez, 2002).

As mentioned in the introduction, past literature indicates that bicultural identity integration can influence positive implications for bicultural individuals' adjustment, cognition, and behavior (Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygun, 2007). Despite the growth on biculturalism research, future studies should focus on better characterizing the mechanism and functions of possessing two or more cultural reference systems. Thus, there are some limitations to the current study. There are multiple possible reasons to account for the lack of associations between bicultural identity integration, identity, and perceptions of self-efficacy. First, quantifying biculturalism has proven to be a complicated undertaking. A recent survey by the Pew Research Center finds that how you were raised, how you see yourself and how the world sees you have a profound effect in shaping multicultural identity (Pew Research Center, 2015). Despite this information, few scales, if any, have included all three aspects of identity - how you were raised, how you see yourself and how the world sees you. With the growing body of literature that utilizes integration ideologies, scientist must critically review the efficacy of these measures. Given the important role of culture on behavior, specifically education, there is a growing need to challenge and enhance the methodologies used to assess biculturalism. The proposed study sought to utilize the Bicultural Identity Integration model to investigate the role of bicultural identities on perceptions of self-efficacy. However, the model fell short to provide a solid understanding of the mechanisms that influence perceptions of self-efficacy amongst individuals with two identities.

The current study is part of an ongoing trajectory line of research examining utility and validity of integration ideologies on specific target behaviors. The current study aimed to replicate the identity effects of Benet-Martinez et. al, (2006) and found only partial support of the BII model. Furthermore, this study found that mainstream and ethnic identities play an important role on academic self-perception.  More specifically, blendedness, the degree of integration of the two identities, predicts academic self-perception. Individuals high on blendedness, meaning they view their mainstream and ethnic identities as a unified novel identity, scored higher on self-perception. The more an individual viewed himself/herself as Mexican-American described themselves as intelligent, able to learn new ideas quickly in school, capable of getting straight, and good at learning new things in school.

Given these findings, additional research is needed to develop a strong understanding about how individuals integrate two cultural reference systems and how these mechanism influence daily behavior. In conclusion, there are consistent findings that bicultural identity integration, more specifically blendedness, influences perceptions of self-efficacy. Given these results, future biculturalism studies should consider context when investigating the interaction between cultural identity and the exposure of a new culture and the effects it exerts particularly in education.

# References

Benet-Martínez, V., & Haritatos, J. (2005). Bicultural Identity Integration (BII): Components and psychosocial antecedents. *Journal of Personality, 73*, 1015-1050.

Benet-Martínez, V., Lee, F., & Leu, J. (2006). Biculturalism and cognitive complexity: Expertise in cultural representations. *Journal of Cross-Cultural Psychology, 37,* 386–407.

Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology, 33,* 492–516.

Berry, J.W. (1984). Cultural relations in plural societies: Alternatives to segregation and their sociopsycological implications. In N.Miller & M.B. Brewer (Eds*.), Groups in contact: The psychology of desegregation,* (pp. 11-27). New York: Academic Press.

Birman, D. (1994). Acculturation and human diversity in a multicultural society. In E. J. Trickett, R. J. Watts, D. Birman (Eds.), *Human diversity: Perspective on people in context* (pp. 261–284). San Francisco: Jossey-Bass.

Branscombe, N. R., Schmitt, M. T., & Schiffhauer, K. (2007). Racial attitudes in response to thoughts of White privilege. *European Journal of Social Psychology, 37,* 203–215.

Chen, S. X., Benet-Martínez, V., & Bond, M. H. (2008). Bicultural identity, bilingualism, and psychological adjustment in multicultural societies: Immigration based and globalization-based acculturation. *Journal of Personality, 76,* 803-838.

Cheng, C. -Y., & Lee, F. (2009). Multiracial identity integration: Perceptions of conflict and

distance among multiracial individuals. *Journal of Social Issues, 65,* 51–68.

Cheng, C., Lee, F., & Benet-Martínez, V. (2006). Assimilation and contrast effects in cultural

frameswitching: Bicultural Identity Integration (BII) and valence of cultural cues.

*Journal of Cross-Cultural Psychology, 37,* 742–760.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). *Hillsdale: L.*

*Erlbaum Associates*.

Downie, M., Koestner, R., ElGeledi, S., & Cree, K. (2004). The impact of cultural internalization

and integration on well-being among tricultural individuals. *Personality and Social*

*Psychology Bulletin, 30,* 305–314.

Downie, M., Mageau, G. A., Koestner, R., & Liodden, T. (2006). On the risk of being a cultural

chameleon: Variations in collective self-esteem across social interactions. *Cultural*

*Diversity and Ethnic Minority Psychology, 12,* 527–540.

Drake, B. (2014). *Public strongly backs affirmative action programs on campus.* Retrieved from

http://www.pewresearch.org/fact-tank/2014/04/22/public-strongly-backs-affirmative-

action-programs-on-campus/

Fuligni, A. J., Witkow, M., & Garcia, C. (2005). Ethnic Identity and the Academic Adjustment

of Adolescents From Mexican, Chinese, and European Backgrounds. *Developmental*

*Psychology, 41(5)*, 799-811.

Gaither, S. E., Remedios, J.D., Schultz, J.R., & Sommers, S.R. (2015). Priming White identify

    elicits stereotype boost for biracial Black-White individuals. *Group Processes and*

    *Intergroup Relations, 0,* 1-11.

Huynh, Q. -L. (2009). *Variations in biculturalism: Measurement, validity, mental and physical*

    *health/psycho-social correlates, and group differences of identity integration.*

    Unpublished doctoral dissertation. Riverside: University of California.

Krogstad, J. M., Fry, R. (2014). *More Hispanics, blacks enrolling in college, but lag in*

    *bachelor's degrees.* Retrieved from http://www.pewresearch.org/fact-

    tank/2014/04/24/more-hispanics-blacks-enrolling-in-college-but-lag-in-bachelors-

    degrees/

LaFromboise, T., Coleman, H. L., & Gerton, J. (1993). Psychological impact of biculturalism:

    Evidence and theory. *Psychological Bulletin, 114*, 395–412.

Linville, P. (1985). Self-complexity and affective extremity: Don't put all of your eggs in one

    cognitive basket. *Social Cognition, 3,* 94-120.

Lopez, M. H., & Fry, R., (2013). *Among recent high school grads, Hispanic college enrollment*

    *rate surpasses that of whites.* Retrieved from http://www.pewresearch.org/fact-

    tank/2013/09/04/hispanic-college-enrollment-rate-surpasses-whites-for-the-first-time/

McCoach, D., & Siegle, D. (2003). The School Attitude Assessment Survey-Revised: A new

    instrument to identify academically able students who underachieve. *Educational and*

    *Psychological Measurement, 63,* 414-429

McConnell, A. R., Strain, L. M., Brown, C. M., & Rydell, R. J. (2009). The simple life: On the benefits of low self-complexity. *Personality and Social Psychology Bulletin, 35*, 823–835.

Nguyen, A.-M. D., Huynh, Q. -L., & Benet-Martínez, V. (2014). The interaction of values and perceived cultural harmony in bicultural individuals. *Oxford Handbooks Online*.

Parker, K., Morin, R., Menasce Horowitz, J., Lopez, M.H., & Rohal, M., (2015). Multiracial in America proud, diverse and growing in numbers. Retrieved from http://www.pewsocialtrends.org/files/2015/06/2015-06-11_multiracial-in-america_final-updated.pdf

Phinney, J., & Devich-Navarro, M. (1997). Variations in bicultural identification among African American and Mexican American adolescents. *Journal of Research on Adolescence, 7*, 3-32.

Ramirez, M. (1984). Assessing and understanding biculturalism-multiculturalism in Mexican-American adults. In J. Martinez, R. Mendoza (Eds.), *Chicano psychology* (pp. 77–94). Orlando, FL: Academic.

Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review, 6,* 88–107

SAS, S. 9.4 [Computer Program].

Sellers, R.M., Chavous, T.M., Cooke, D.Y. (1998). Racial ideology and racial centrality as predictors of African American college students' academic performance. *Journal of Black Psychology, 24*, 8–27.

Sellers, R.M., Rowley, S.A.J., Chavous, T.M., Shelton, J.N., Smith, M.A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology, 73*, 805–815.

Smalls, C., White, R., Chavous, T., & Sellers, R. (2007). Racial ideological beliefs and racial discrimination experiences as predictors of perceptions of self-efficacy among African American adolescents. *Journal of Black Psychology, 33*, 299–330.

Steele, C.M., J. Aronson, J. (1995) Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*, 797–811

# Appendix A

## American Prime

**American** culture encompasses the customs and traditions of the United States. Culture encompasses religion, food, what we wear, how we wear it, our language, marriage, music, what we believe is right or wrong, how we sit at the table, how we greet visitors, how we behave with loved ones, and a million other things.

What are some of the things, ideas, and/or customs you like and enjoy about being American? List at least 2.

1.                                                         3.
2.

In the space below please describe in detail why you like and enjoy some of the things, ideas, and/or customs you listed above.

## Latino Prime

**Latino** culture encompasses the customs and traditions of the United States. Culture encompasses religion, food, what we wear, how we wear it, our language, marriage, music, what we believe is right or wrong, how we sit at the table, how we greet visitors, how we behave with loved ones, and a million other things.

What are some of the things, ideas, and/or customs you like and enjoy about being Latino? List at least 2.

1.                                                         3.
2.

In the space below please describe in detail why you like and enjoy some of the things, ideas, and/or customs you listed above.

## Mexican-American Prime

**Mexican-American** culture encompasses the customs and traditions of the United States. Culture encompasses religion, food, what we wear, how we wear it, our language, marriage, music, what we believe is right or wrong, how we sit at the table, how we greet visitors, how we behave with loved ones, and a million other things.

What are some of the things, ideas, and/or customs you like and enjoy about being Mexican-American? List at least 2.

1.                                                         3.
2.

In the space below please describe in detail why you like and enjoy some of the things, ideas, and/or customs you listed above.

# Appendix B

Bicultural Identity Integration Scale – Version 2

(Huynh, 2009)

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| Strongly Disagree |  |  |  |  |  | Strongly Agree |

Harmony
1.      I feel caught between the _____ and American cultures.
2.      I feel like someone moving between two cultures.
3.      Being bicultural means having two cultural forces pulling on me at the same time.
4.      I do not feel trapped between the _____ and American cultures.
5.      I feel conflicted between the American and _____ ways of doing things.
6.      I find it easy to balance both _____ and American cultures.
7.      I rarely feel conflicted about being bicultural.
8.      I feel torn between _____ and American cultures.
9.      I feel that my _____ and American cultures are incompatible.
10.     I find it easy to harmonize _____ and American cultures.
Blendedness
11.     I feel _____-American.
12.     I feel _____ and American at the same time.
13.     I relate better to a combined _____-American culture than to _____ or American culture alone.
14.     I feel part of a combined culture.
15.     I cannot ignore the _____ or American side of me.
16.     I do not blend my _____ and American cultures.
17.     I keep _____ and American cultures separate.
18.     I am simply a(n) _____ who lives in North America.
19.     I find it difficult to combine _____ and American cultures

School Attitude Assessment Survey – Revised

(McCoach & Del Siegle, 2003)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Strongly Disagree                                     Strongly Agree

Academic Self-perception
1. I am intelligent.
2. I can learn new ideas quickly in school.
3. School is easy for me.
4. I can grasp complex concepts in school.
5. I am capable of getting straight As.
6. I am good at learning new things in school.
7. I am smart in school.
8. My classes are interesting

Goals Valuation
1. Doing well in school is important for my future career goals
2. Doing well in school is one of my goals.
3. It's important to get good grades in school.
4. I want to do my best in school.
5. It is important for me to do well in school.
6. I want to get good grades in school.

**Appendix D**

Multidimensional Self-Efficacy Scales

(Bandura, 1989a)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Not well at all | | Not too well | | Pretty well | | Very well |

Self-efficacy for self-regulated learning

*How well can you:*

1. Finish homework assignments by deadlines?
2. Study when there are other interesting things to do?
3. Concentrate on school subjects?
4. Take class notes of class instruction?
5. Use the library to get information for class assignments?
6. Plan your schoolwork?
7. Organize your schoolwork?
8. Remember information presented in class and textbooks?
9. Arrange a place to study without distractions?
10. Motivate yourself to do schoolwork?
11. Participate in class discussion?

**Appendix E**

Self-Complexity Measure

(Adapted from Linville, 1985)

1. Intimacy
2. Adventure
3. Industry
4. Forgiveness
5. Challenge
6. Duty
7. Humor
8. Self-control
9. Tradition
10. Ecology
11. Change
12. Achievement
13. Mindfulness
14. Inner peace
15. Service
16. Nurturance
17. Leisure
18. Courtesy
19. Spirituality
20. Caring
21. Dependability
22. Pleasure
23. Accuracy
24. Realism
25. Cooperation
26. Fitness
27. Helpfulness
28. Knowledge
29. Openness
30. Risk
31. Popularity
32. Power
33. Loving
34. Health
35. Self-acceptance
36. Commitment
37. Faithfulness
38. Monogamy
39. Rationality
40. Contribution

41. Responsibility
42. Justice
43. Simplicity
44. Flexibility
45. Romance
46. Humility
47. Tolerance
48. Comfort
49. Solitude
50. Acceptance
51. Order
52. Authority
53. Sexuality
54. Wealth
55. Beauty
56. Excitement
57. Hope
58. Safety
59. Passion
60. Stability
61. Fun
62. Mastery
63. Generosity
64. Independence
65. Self-esteem
66. Virtue
67. Compassion
68. Growth
69. Autonomy
70. Creativity
71. Moderation
72. Purpose
73. Non-conformity
74. Family
75. Honesty
76. Friendship
77. Genuineness
78. Self-knowledge
79. Other- specify

**Table 1.** Correlations between Harmony, Blendedness, Self-Perception, Goals Valuation, and Self-efficacy.

| | Harmony | Blendedness | Self-Perception | Goals Valuation |
|---|---|---|---|---|
| **Pearson Correlation Coefficients, N = 180** | | | | |
| **Blendedness** | 0.388*** | | | |
| **Self-Perception** | 0.042 | 0.232* | | |
| **Goals Valuation** | 0.096 | 0.234* | 0.324*** | |
| **Self-Efficacy** | 0.013 | 0.101 | 0.588*** | 0.318*** |

*Note:* *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed). ***Correlation is significant at the 0.001 level (2-tailed).

**Table 2.** Means and standard deviations of Harmony and Blendedness, Self-Perception, Goals Valuation, and Self-efficacy by Identity Prime Condition.

| Level of Condition | N | Harmony | | Blendedness | | Self-Perception | | Goals Valuation | | Self-Efficacy | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev |
| American | 63 | 5.206 | 0.852 | 5.185 | 0.863 | 5.47 | 0.793 | 6.613 | 0.587 | 5.166 | 0.898 |
| Mexican | 61 | 5.313 | 0.829 | 5.359 | 1.027 | 5.760 | 0.658 | 6.760 | 0.405 | 5.24 | 0.945 |
| Mex-Am | 56 | 5.063 | 0.895 | 5.242 | 0.888 | 5.658 | 0.739 | 6.729 | 0.424 | 5.248 | 0.810 |

**Figure 1.** Conceptual Diagram of the Moderating role of Blendedness and Harmony between the relationship between identity and Perceptions of Self-Efficacy.
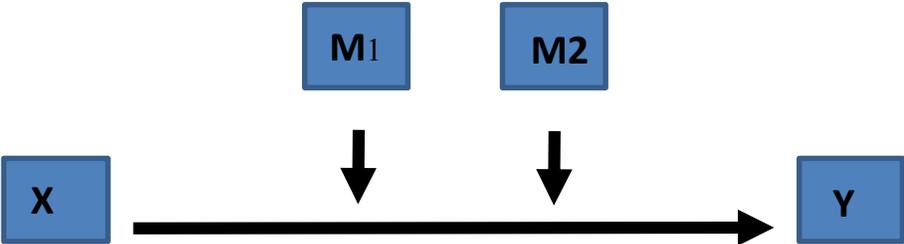
**Figure 2**. Moderation A- Conceptual Diagram of the Moderating role of Blendedness and Harmony between identity and self-perception.
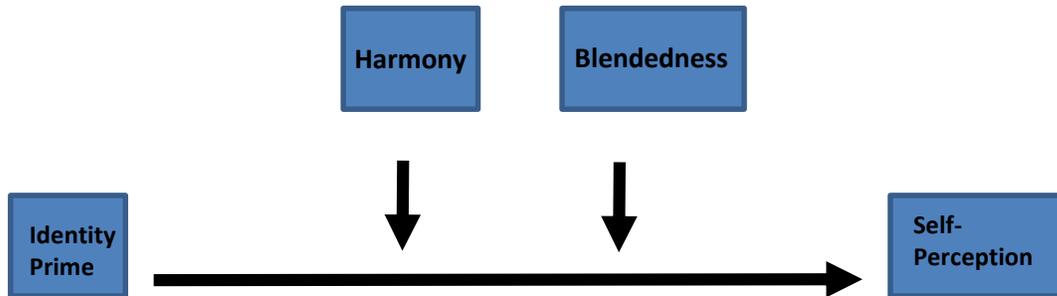


**Table 3.** Moderation A- Change statistics of the moderating role of Blendedness and Harmony between Identity Prime and Self-Perception

| | R Square | R Square Change | F Change | df1 | df2 | Sig. F Change |
|---|---|---|---|---|---|---|
| 1. Identity Prime | .030 | .030 | 2.713 | 2 | 177 | .069 |
| 2. BII-2 | .081 | .051 | 4.883 | 2 | 175 | .009 |
| 3. Interaction | .111 | .030 | 1.451 | 4 | 171 | .219 |

**Figure 3**. Moderation B- Conceptual Diagram of the moderating role of Blendedness and Harmony between Identity Prime and Goals valuation.
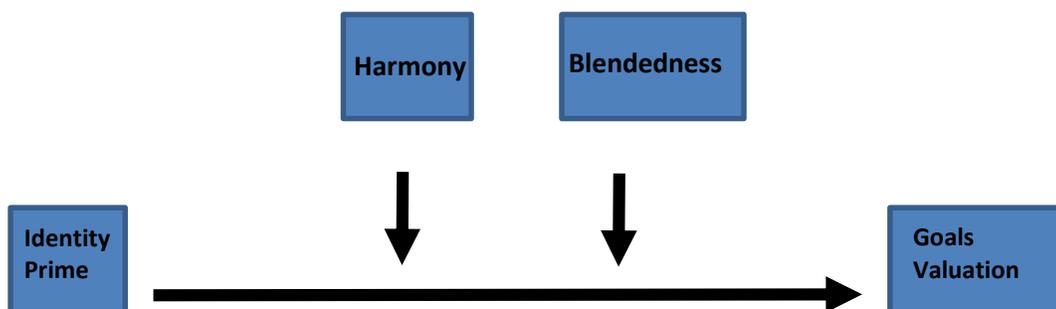


**Table 4.** Moderation B- Change statistics of the moderating role of Blendedness and Harmony between Identity Prime and Goals valuation.

|  | R Square | R Square Change | F Change | df1 | df2 | Sig. F Change |
|---|---|---|---|---|---|---|
| 4. Identity Prime | 0.017 | .017 | 1.548 | 2 | 177 | .216 |
| 5. BII-2 | 0.068 | .051 | 4.797 | 2 | 175 | .009 |
| 6. Interaction | 0.079 | .011 | 0.494 | 4 | 171 | .740 |

**Figure 4**.  Moderation C- Conceptual Diagram of the moderating role of Blendedness and Harmony between Identity Prime and Self-Efficacy.



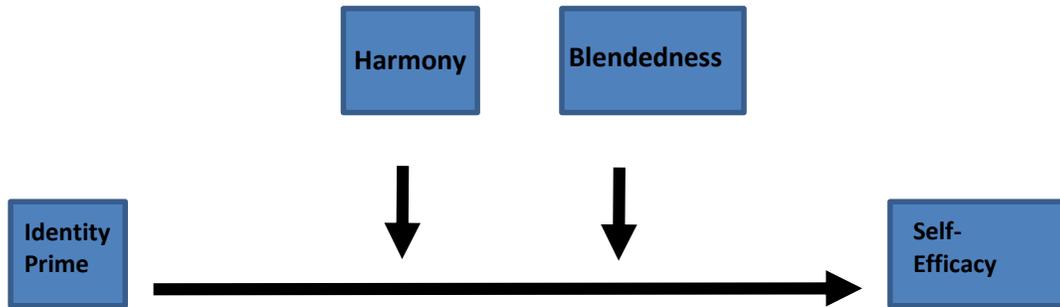**Table 5**.  Moderation C- Change statistics of the moderating role of Blendedness and Harmony between Identity Prime and Self-Efficacy.

| | R Square | R Square Change | F Change | df1 | df2 | Sig. F Change |
|---|---|---|---|---|---|---|
| 7. Identity Prime | .002 | .002 | .194 | 2 | 177 | .824 |
| 8. BII-2 | .014 | .012 | 1.064 | 2 | 175 | .347 |
| 9. Interaction | .047 | .033 | 1.470 | 4 | 171 | .213 |

**Vita**

Miriam J. Alvarez was born in El Paso, Texas. She was raised in the border region of El Paso-Juarez. Her family migrated to the United States when she was in third grade and she graduated from Gadsden High School, Anthony, New Mexico in May 2009. On May 2013, she graduated from The University of Texas at El Paso with a bachelor's of arts degree majoring in Psychology and minoring in Philosophy. The Fall of 2013, she entered The University of Texas at El Paso Psychology doctoral program, in the concentration of Social Cognition.

Permanent address:     Miriam J. Alvarez

                      429 Tierra Dorada Cr.

                      Anthony, NM, 88021

                      Mjalvarez2@miners.utep.edu

This thesis was typed by Miriam J. Alvarez.