

The Pennsylvania State University

The Graduate School

The Department of Counselor Education, Counseling Psychology, and
Rehabilitation Services

SKIN COLOR AND ITS RELATIONSHIP TO HISPANICS'

ACCULTURATION PROCESS

A Thesis in

Counseling Psychology

by

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Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

December 2006

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Abstract

The current study sought to examine Hispanics experience in the United States by investigating how skin color relates with Hispanics' acculturation process. More specifically, this study attempted to illustrate whether skin color better explains Hispanics' acculturation process when compared to other variables, such as SES, nationality, and the person's experience with discrimination. This study used both a self-perceived measure of skin color and an objective measure of skin color (determined by a spectrometer) to determine which one better predicts the acculturation process.

Two hundred students from the University of Miami and Miami-Dade Community College participated in the study, representing various Hispanic countries such as, Cuba, Colombia, Venezuela, Dominican Republic, Puerto Rico, Ecuador, Panama, Peru, Bolivia, Mexico, Argentina, Chile, and Nicaragua. Participants filled out packets that included questionnaires and scales related to income, education, nationality, acculturation using the SMAS, discrimination using the Generalized Ethnic Discrimination Scale, and a subjective measure of skin color using a Skin Color Scale. Participants skin color was measured by using a spectrometer and it was later recorded on the DermaSpectrometer Reading sheet.

Correlational analyses were used to determine if relationships existed between: the Skin Color Scale (subjective measure of skin color) and the dermaspectrometer reading (objective measure of skin color); the dermaspectrometer reading (objective measure of skin color) and acculturation;

the dermaspectrometer reading and three measures of social class: income, education, and occupation; acculturation and the three measures of social class: income, education, and occupation; and dermaspectrometer reading and the participants' experience with discrimination. Finally, simultaneous regression analyses were used to determine the amount of variance the dermaspectrometer reading accounted for in predicting acculturation when compared to other predictor variables, such as nationality, self-perceived skin color, and SES measures. In addition, when compared to other variables, such as self-perceived skin color, nationality, and SES, actual skin color was expected to account for the majority of the variance regarding discrimination.

The results of the present study were unconvincing. Many of the research questions resulted in non-significant results. Gender differences seemed to influence the general findings. For many of the research questions males and females differed significantly in their responses, reducing the likelihood of finding overall significance. The present finding did find some support for the use of subjective measures of skin color, allowing for the investigation of skin color to continue.

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CHAPTER ONE

Introduction

For the past thirty-five years, there has been an influx of Hispanic immigrants, resulting in a burgeoning increase of Hispanics in the U.S. population (Camarillo & Bonilla, 2001; Torres, 1999). By 2010, Hispanics are expected to be the largest of the principal minority groups (i.e., African Americans, Hispanic Americans, Asian Americans and Native Americans) in the United States (Torres, 1999). With the increase of Hispanics in the U.S. there is a greater need for researchers to better understand how Hispanics acculturate to the United States. The Hispanic people and their identities are diverse and multi-faceted (Camarillo & Bonilla, 2001). However, Hispanic identities have been homogenized and treated as monolithic entities in the U.S. (Camarillo & Bonilla, 2001). "The generic term Hispanic includes individuals of diverse Hispanic-based national origins, including Mexico, the countries of Central America (i.e., Guatemala, Honduras, Costa Rica, El Salvador, Nicaragua, and Panama), the Spanish-speaking countries of South America (i.e., Colombia, Venezuela, Peru, Chile, Ecuador, Uruguay, Paraguay, Argentina), the Spanish-speaking countries of the Caribbean (i.e., Cuba, the Dominican Republic), and the U.S. territorial island of Puerto Rico" (Casas and Pytluk, 1995, p. 156). The various national origins subsumed under the label Hispanic mask the diverse ancestral roots (African, Native Indian, or European) of Hispanic people. The phenotype of Hispanics has high variability. Skin color ranges from White to Brown to Black.

Skin color has had a direct impact on most Hispanics due to the variability

of skin color within Latin American and Caribbean communities, with those at the lighter end of the continuum having access to more opportunities (Falicov, 1998; Wilson & Senices, 2005). The numerous color gradations in Latin America and the Caribbean make it challenging for racially mixed individuals to classify themselves in a color-coded hierarchy. Racially mixed individuals have the opportunity to fall on the lighter-end of the color continuum and therefore develop a “White” identity, which is associated with more opportunities and privilege (Wilson & Senices, 2005). There is no empirical research investigating how “whiteness” influences the opportunities afforded to Hispanics. In general, the influence of skin color on individuals’ life chances has been largely ignored by psychologists and researchers (Hall, 2002; Montalvo, 1987). The consequence of skin color has indirectly shaped the experiences of many throughout history (Hall, 2002). Furthermore, Hall (1994) stated that light skin is ideal in the United States because it represents status within the dominant mainstream population.

For the most part, research tends to homogenize Hispanics into one group, limiting the understanding of the complexity behind the Hispanic experience in the U.S. As stated earlier, the Hispanic population is diverse (Casas & Pytluk, 1995) and to better understand Hispanics’ experience in the U.S., it seems necessary to investigate the various factors (skin color, nationality, social class, and experience with discrimination) composing the Hispanic identity and how it relates to Hispanics’ acculturation to the U.S. Most Hispanics upon arriving to the U.S. will undergo some type of acculturation process (Padilla, 1980). The definition of acculturation has focused on various factors, including

the following: (a) learning values, beliefs, and normative behaviors of the dominant culture; (b) finding a balance between traditional values and the Anglo-American values; (c) learning to adjust to the dominant system, while remaining identified with the traditional culture (Laframboise, Coleman & Gerton, 1993; Montalvo, 1991; Padilla, 1980; Szaponick and Kurtines, 1980). It is unclear whether acculturation improves Hispanics' opportunities, social integration, and psychological adjustment or whether it is linked to the influence of skin color for various Hispanics (Montalvo, 1991). The historical influence of skin color in the United States (Smelser, Wilson, & Mitchell, 2001) leads to the belief that skin color will be the most significant variable in the Hispanics' acculturation process. According to Hall (1994), there are definite reasons to suspect a relationship between skin color and acculturation.

More specifically, the main purpose of this study is to examine the relationship between skin color and the acculturation process for the Hispanic population. Few studies have investigated acculturation as it relates to Hispanics' skin color. The concept of skin color has been associated in the literature with various variables that relate to acculturation. For example, skin color is identified as one of the social mechanisms that propels racism, which relates to how a person may acculturate in the U.S. (Montalvo, 1991). Furthermore, research suggests that skin color relates to the educational and economic opportunities of various immigrant populations (Arce, Murgia, and Frisbie, 1987). Little empirical evidence has directly illustrated the relationship between skin color and Hispanics' acculturation process.

The limited research that has examined skin color and Hispanics (Arce, Murgia, and Frisbie, 1987; Relethford, Stern, Gaskill, and Hazuda, 1983; Vasquez, Garcia-Vasquez, and Bauman, 1997) has used subjective measures of skin color by having participants' indicate their self-report, as well as having interviewers rate participants. Using subjective measures of skin color limits the generalizability of the studies, as it is often unclear how various skin colors were categorized and defined. To have a better illustration of the relationship between skin color and acculturation, this study used an objective measure of skin color. Furthermore, the DermaSpectrometer (an instrument which reads the amount of melanin on the skin) was used to verify how skin color relates to how Hispanics acculturate to the U.S., including various Hispanic ethnic groups.

The existing studies that have investigated skin color and acculturation has focused on specific Hispanic ethnic groups, i.e. Mexicans and Puerto Ricans (Hall, 1992; Montalvo, 1991; Vasquez, Garcia-Vasquez, Bauman, and Sierra, 1997). Examining only the influence of skin color and acculturation to specific ethnic groups has been identified by these authors (Hall, 1992; Montalvo, 1991; Vasquez, Garcia-Vasquez, Bauman, and Sierra, 1997) as a limitation to their respective studies. Certain ethnic groups, such as Mexicans, may have specific factors that influence their acculturation process to the United States. For example, the sociopolitical relationship between Mexico and the United States may inadvertently influence Mexicans' acculturation process. In addition, the ethnic group's proximity to the United States may also influence the acculturation process. As a result, these factors may confound the relationship between skin

color and acculturation. This study investigated a more heterogeneous population, including a variety of ethnic groups that identify as Hispanic to establish whether skin color relates to the acculturation process, regardless of the individual's ethnic group. Upon reviewing the historical influence of skin color and the variables related, such as, socioeconomic status and a person's experience with discrimination (addressed in chapter 2), I predicted that skin color significantly related to acculturation when using a more heterogeneous population.

The existing literature indicates a strong relationship between skin color and socioeconomic status. Studies have indicated a highly significant effect of skin color on social class subdivisions, as it pertains to Hispanic ethnic groups (i.e., Mexicans), with skin color reflecting Native American ancestry decreasing as social class increases (Relethford, Stern, Gaskill, and Hazuda, 1983; Telles & Murgia, 1990). In addition, dark and Native American phenotypes received significantly lower earnings than those of lighter and more European phenotypes (Relethford, et al., 1983; Telles & Murgia, 1990). Furthermore, SES has very important implications for Hispanics' acculturation process in the U.S. (Arce, et al., 1987). In validating their acculturation measure, Cuellar, Arnold, and Maldonado (1995) found that SES was positively correlated with acculturation in their Mexican/ Mexican-American sample. It remains unclear, which of the two variables (skin color or SES) better explains Hispanics' acculturation. An additional aim of my study was to illustrate that skin color better explains acculturation over other factors, such as SES and a person's experience with

discrimination.

Understanding discrimination as it relates to the Hispanic population is a significant factor in understanding Hispanics' experience in the United States, since Hispanics represent a minority identity. The process of discrimination seems to be enacted when subcultures interact with the majority culture. Therefore, discrimination can be a salient factor in how the Hispanic acculturates to the U.S. The literature on Hispanics' experience with discrimination is scarce, with the focus mostly on the Mexican population. Even fewer studies have emphasized the influence of skin color and Hispanics' experience with discrimination. For the purpose of this study, I examined whether skin color influences Hispanics' experience with discrimination.

Chapter two provides a thorough review of the variables for this study: (1) the influence of skin color by providing a historical and contemporary analysis, as well as the relevance of skin color to the Hispanic population, (2) the past and present-day conceptualization of acculturation and how it relates to the Hispanic population, (3) SES and how it has been measured, with the majority culture as well as with ethnic minorities, and (4) the historical consequences of discrimination on various groups, with special attention to Hispanic subgroups. This study attempted to elucidate the general understanding of Hispanics' acculturation process by examining the relationship of skin color to Hispanics' experience in the United States. Furthermore, this study attempted to illustrate whether skin color better explains Hispanics' acculturation process when compared to other variables, such as SES, nationality, and the person's experience

with discrimination. In addition, this study used both a self-perceived measure of skin color and an objective measure of skin color (determined by a spectrometer) to determine which one better predicts the acculturation process.

CHAPTER TWO

Literature Review

This review of the literature will consist of four sections: (1) the historical and contemporary influence of skin color and its relevance to the Hispanic population, (2) the historical and contemporary conceptualization of acculturation, (3) a review of SES and how it has been measured, with the majority culture as well as with ethnic minorities, and (4) the historical impact of discrimination on various groups, more specifically on Hispanic subgroups.

Historical Influence of Skin Color

The influence of skin color on individuals' life chances has been largely ignored by psychologists and researchers (Hall, 2002; Montalvo, 1987). Meanwhile, the consequence of skin color has indirectly shaped the experiences of many throughout history (Hall, 2002). During colonialism (the time period in which Europeans were conquering the Americas), a social hierarchy was established with Europeans designating Whites as superior and people of other races as inferior (Lancas, 1992). Colorism, defined by Lancas (1992) as preferential treatment due to skin color, was one of the determinants of the social structure, given that skin color is the most notable racial characteristic (Phinney, 1996). Furthermore, the influence of skin color became loaded with connotations of conquest, domination, power, morality, wealth, and status, implying a natural phenomenon, i.e. that it is appropriate, even "natural" for whites to be accorded higher status (Lancas, 1992; Loewen, 1995). Therefore, skin color took on mythical proportions in that the appearance of Whiteness, represented innocence,

objectivity, nature, and biology, resulting in Whiteness having more status than Blackness/Brownness (Lancas, 1992). Lighter-skinned people conquered darker-skinned individuals, providing Whites the opportunity to control the social structure and to claim the higher echelons of society for themselves and place non-Whites and Blacks at the bottom of society (Lancas, 1992).

White colonials used color relations as they conquered lands in Latin America and the Caribbean to invent a new system of power (Lancas, 1992). As White colonials established themselves in the conquered lands of Latin America and the Caribbean, they also established a system of assigning rights and privileges to those of European ancestry, using skin color as the most salient criterion (Montalvo, 1991). European colonists generated multiracially stratified societies to maintain power. For example, individuals born in Spain or other European countries were assigned the highest prestige. Individuals born in America with Spanish or European heritage were next, followed by a large intermediate group with mixed heritage. Finally those with pure native and/or African lineage were at the bottom of the social order (Montalvo, 1991). In time, the two white populations (those born in Spain or other European countries and those born in America with Spanish or European heritage) fused in Latin America, developing a social hierarchy with three major groups: light, intermediate, and dark skin color (Montalvo, 1991).

Unlike Latin America and the Caribbean, in the United States the concept of skin color has spawned a racially divided society, including two racial groups (Montalvo, 1991). Despite the various racial compositions in the United States,

this society has historically recognized two racial categories, with light skin color and Caucasian features deemed more worthy than Asian, Native American, or African racial features (Montalvo, 1991). Most of the literature on skin color in the U.S. has revolved around the African American community. As a result, prior research has highlighted how blackness has become a marker in discrimination, by identifying the lack of opportunities and privilege for Blacks in the U.S. (Hughes and Hertel, 1990; Jones, 1966; Lee, 1999). It seems relevant to explore whether the same phenomenon exists within the Hispanic population.

The Phenomenon of Skin Color in Hispanic Countries

Caribbean societies currently function under a multiracial stratification system that uses color gradations, ranging from White to Brown to Black, in association with class status and nationality, to maintain a social hierarchy (Duany, 1998). For example, in the Dominican Republic, Haitians are physically indistinguishable from dark-skinned Dominicans, but Dominicans reserve the category of Black solely for Haitians (Duany, 1998). Haitian immigrants work the menial jobs in the Dominican Republic and as a result represent the lowest echelon of the Dominican class system (Itzigsohn & Dore-Cabral, 2000).

Although Dominicans are racially mixed, they blur the distinctions between Creoles, Whites, light Coloreds, and Mulattos, thereby creating the impression of and functioning as a predominantly White population. Additionally, most Dominicans have held on to the perspective that they belong to the lighter end of the color continuum in order to maintain status in their country, highlighting the influence of skin color in this society (Itzigsohn & Dore-Cabral, 2000). As

Dominicans migrate to the United States they retain their view of color with pride and reject any identification with African ancestry (Duany, 1998).

Similar to how Dominicans perceive race, Puerto Ricans view race on a continuum ranging from White to Mulatto to Black (Duany, 1998). Puerto Rican society emphasizes "progressive whitening," which encourages individuals to establish their identity on the basis of color, more specifically, as White (Duany, 1998). Puerto Rican society expects Black Puerto Ricans to shed their color by encouraging the assimilation of Afro-American and Indian heritage with White heritage in order to adopt White European norms and values (Duany, 1998; Safa, 1998). As a result, most Puerto Ricans identify as White and reject those who are Black (Duany, 1998).

Nicaraguan society uses skin color as the determining factor in allocating resources within family structures (Lancas, 1992). Nicaraguan families with children of varying skin tones have an underlying preference for the lighter-skinned children. This preference is characterized by parents rejoicing over having lighter-skinned children, whereas dark-skinned children are associated with shame and conflict. Parents are more likely to encourage lighter hued children to study at a university and take up a profession than their darker colored children (Lancas, 1992).

Dominican, Puerto Rican, and Nicaraguan societies are examples of how Hispanic countries use skin color to determine the allocation of rights and privileges (Duany, 1998; Lancas, 1992; Safa, 1998). The societies described above represent the Caribbean and Latin American countries and capture the

influence of skin color in the various Hispanic countries. They have been highlighted to give perspective on the overall social structures within Hispanic countries (Falicov, 1998; Montalvo, 1991).

Skin color has had a direct impact on most Hispanic families due to the variability of skin color within Latin American and Caribbean communities, with those at the lighter end of the continuum having access to more opportunities (Falicov, 1998). The numerous color gradations (in Latin America and the Caribbean) make it challenging for racially mixed individuals to classify themselves in a color-coded hierarchy. Racially mixed individuals have the opportunity to fall on the lighter-end of the color continuum and therefore develop a “White” identity, which is associated with more opportunities and privilege. There is no empirical research investigating how self-perceived “whiteness” influences the opportunities afforded to Hispanics. One purpose of this study is to investigate the influence of “whiteness,” measured by a spectrometer, as it directly relates to Hispanics’ acculturation in the United States. I will first review the empirical research on the influence of skin color on the life chances of racial/ethnic minorities in the U.S. Existing empirical data on skin color have centered on the African-American community, with minimum attention on the Hispanic community. Therefore, it seems important to highlight the African-American experience, as well as include the available research on the influence of skin color for Hispanics in the U.S.

The Influence of Skin Color in the U.S.

African Americans. Jones (1966) indicated that the complexity of African American identity is directly related to skin color, as it seems to facilitate or impede the chances of future ventures, i.e., employment and educational opportunities. Vontress (1970) suggested that skin color influences every African American life endeavor, including education, occupation, and income within the United States. The influence of skin color on the life chances of African Americans has generated feelings of self-hate, as well as the projection of prejudices and norms towards one another, which appears to be comparable to non-minorities who discriminate against minorities on the basis of skin color (Vontress, 1970). Furthermore, Hall (1990) stated that skin color is directly related to African Americans' quality of life, with individuals of a lighter complexion having more opportunities than their darker counterparts. Within the African American community there exists a color-coded hierarchy, ranging from light-skinned to cream colored to Black (Lee, 1999). "Black-black skin apparently occupies the bottom of a colorist hierarchy even within the Black community," based on Lee's (1999) experience with the black communities' "obsession" with whiteness, the color that is on top of the hierarchy (Lee, p. 284). Hill (2000) noted that light-skinned African Americans continue to have an advantage over their darker counterparts, maintaining the notion that darker-hued non-White ethnics are less accepted than their lighter counterparts.

Hughes and Hertel (1990) used the National Survey of Black Americans, which included a sample of 2,107 Black adults, to investigate the association

between skin color and socioeconomic status (SES). The National Survey of Black Americans is a household survey, consisting of participants 18 years of age and older, and was conducted in 1979 and 1980. The interviewer assessed skin color at the time of the interview, using a rating scale from very dark brown to very light brown. SES was measured based on years of education, occupational prestige, personal income, and family income. As the sample consisted of more females and older adults, the authors employed a weighting procedure to correct for age and gender irregularities (Hughes & Hertel, 1990). The analyses used indicated that Blacks with lighter skin had higher socioeconomic status and had spouses higher in socioeconomic status. The authors concluded that the historical influence of skin color on African Americans' life chances has not changed in the latter half of the twentieth century. The present study was compared to G. Edwards' 1959 study, which looked at the relationship between skin color and socioeconomic status within the African American community, using data collected in 1950. The results were similar: light skin Blacks were afforded more opportunities than dark skin Blacks. Analogous to the Hughes and Hertel (1990) study was Hill's (2000) investigation of African American men's life chances due to skin color.

Hill (2000) used a longitudinal design to study the influence of skin color on the socioeconomic attainment of 459 African American men raised in the South by examining their childhood census records. The childhood census records (collected in 1920 by Census investigators) classified African Americans as either "Black" or "Mulatto." Participants who were identified as "Mulatto" had

a higher adult socioeconomic status compared to those classified as "Black." Moreover, "Mulattos" were more likely to be working in a White-collar occupation compared with "Blacks" who had a similar childhood background, i.e., similar neighborhood, and school systems. For example, the 1920 Census data indicated that Mulattos experienced greater access to childhood educational opportunities than did Blacks of the same age (1.32 times greater). Hill's study underscores the influence of skin color in American society within racial/ethnic minority groups. More specifically, it captures the influence of skin color within the African American community. It seems necessary to explore if these results would generalize to other racial/ethnic minority groups, i.e. Hispanics.

The label Hispanic has presumed a "minority" identity within the United States, implying a similarity with other racial/ethnic minority groups, i.e. African-Americans. Historically racial/ethnic minority groups have faced various barriers in pursuing quality of life (i.e., employment, housing, and educational opportunities) in the U.S (Ponterotto & Pedersen, 1993). To illustrate the experience of Hispanics in the U.S., I will review the limited empirical evidence on the influence of skin color for Hispanics and use the literature on the African American community as the backdrop for the sociopolitical influence of skin color in the United States.

Hispanics. The term Hispanic includes individuals of diverse Hispanic-based national origins, including Mexico, the countries of Central America (i.e., Guatemala, Honduras, Costa Rica, El Salvador, Nicaragua, and Panama), the Spanish-speaking countries of South America (i.e., Colombia, Venezuela, Peru,

Chile, Ecuador, Uruguay, Paraguay, Argentina), the Spanish-speaking countries of the Caribbean (i.e., Cuba, the Dominican Republic), and the U.S. territorial island of Puerto Rico" (Casas & Pytluk, 1995). Hispanics exemplify a rainbow of skin colors and diverse physical attributes. Yet, the U.S. media produces stereotypes of Hispanics as dark-skinned people. This depiction contrasts with the enculturative messages given by the country of origin of Hispanics (Montalvo, 1987). Hispanics, in their country of origin, recognize and praise their European ancestry. For example, Mexican national media portrays the Hispanic ideal as light-skinned, European, and successful individuals (Montalvo, 1987).

Assimilating the Western perspective of Hispanics (as a racial minority group) while holding on to their national racial identity may lead to Hispanics living in the U.S. to develop psychologically conflicting views about their skin color. In an effort to improve their quality of life, Hispanics use light skin (and internalize the concept of "whiteness") to assure inclusion in mainstream society (Hall, 1994). Furthermore, even dark-skinned Hispanics may develop contempt for dark skin due to its social significance (Hall, 1994). Hall (1994) suggested that to minimize the internal conflict imposed by skin color most Hispanics develop the "bleaching syndrome," which refers to a recognizable pattern of adopting White ideals at the expense of their own racial identity.

Cota-Robles de Suarez (1971) investigated whether Chicano children were aware of their skin color, by interviewing 28 low-income children who were from Los Angeles and between 4 and 5 years of age. The children were in two separate head start programs with one group consisting of 12 children (5 boys and

7 girls) and the other group consisting of 16 children (9 boys and 7 girls). The children were individually presented with a Choice test (a modification of R.E. Horowitz's (1939) test on African American preschoolers), which consists of two drawings: a Chicano boy or girl (depending on the participant's gender) and an Anglo boy or girl. Children were then asked by the interviewer to choose from the drawings who they would befriend. The authors tabulated the frequency of responses and found that for the Choice test, over 58% of the sample wanted to befriend the Anglo child in the drawing.

The second test, the Coloring test, a modification of a test devised by Clark and Clark (1947) for African American children, consisted of blank drawings of boys and girls that participants had to color in. The blank drawings were again distributed by sex, with boys receiving boy figures and girls receiving the girl figures. Participants were later asked what color they wanted the drawings to be. Twenty-five percent of the participants colored their response brown, about 31% colored the drawings pink and 44% of the colored drawings were deemed irrelevant (children picked colors that did not relate to human skin tones). De Suarez (1971) concluded that more children in the sample preferred light-skinned playmates and chose pink as an ideal face color for the drawing.

The study described above had various limitations: a very small and homogeneous sample and unreliable measures. Yet, it highlighted the pervasive effects of skin color on school children's friendship preference. Furthermore, Cota-Robles de Suarez (1971) documented children's awareness of their skin color. The author found that most of the darker Mexican Americans interviewed

were keenly aware of the negative influence of their skin color. Cota-Robles de Suarez (1971) cited the response of a 13-year-old Mexican girl: “My being Mexican has brought about my lack of initiative. No matter what I attempt to do, my dark skin always makes me feel that I will fail” (p. 121). Montalvo (1991) later suggested that as children experience discrimination in schools and in the community because of their physical features, parents will want to separate their children from mainstream culture in order to protect them from the prejudicial attitudes. Furthermore, parents of dark-skinned children will perceive acculturation as a less viable option by rejecting acculturating altogether. On the other hand, light and moderate skinned Hispanic youths may tend to minimize their interactions with their darker peers in order to disassociate themselves from the disparaged group (Montalvo, 1991).

Ojito (2000) investigated whether skin color hindered friendships with individuals of varying skin tones. She conducted personal interviews with Cubans immigrating to Miami. She found that the darker Cubans interviewed were extremely aware of their skin color and the role it played in their lives. Black Cubans reported that upon arriving in Miami they realized that the color of their skin defined where they lived, worked, and socialized based on the societal barriers they confronted. In contrast, White Cubans stated that they rarely thought of skin color or race and experienced a smoother transition in the new environment. Furthermore, when White Cubans did think about race, it was in the context of learning from other White Cubans how to avoid Blacks. As a result, mixed-race friendships cemented in Cuba due to similar SES, educational

background and lifestyle activities fell apart because of differing complexions (Ojito, 2000). Ojito (2000) suggested that unlike other Hispanic countries, skin color has been less salient in Cuba because of its political climate. As a result, a Black Cuban remarked on the dissolution of his friendship with a White Cuban upon arriving to Miami, "It's like I am here and he is over there and we can't cross over to the other's world" (Ojito, p. 27). In reviewing the influence of skin color on Hispanics, it seems that the essence of the Hispanic experience in the United States revolves around a form of racism that connect light and dark Hispanics to each other by linking everyone into a homogeneous ethnic group, as well as divide them into separate groups based on the effect of colorism (Montalvo, 1991).

The influence of skin color helps to explain the complexity behind the Hispanic experience in the U.S. However, when considering the influence of skin color for various Hispanics, it seems crucial to incorporate Hispanics' process of acculturation, another central factor in the multifaceted experience of Hispanics in the U.S (Montalvo, 1991). Most Hispanics upon arriving to the U.S. will undergo some type of acculturation process (Padilla, 1980). The definition of acculturation includes some of the following factors: (a) learning values, beliefs, and normative behaviors of the dominant culture; (b) finding a balance between traditional values and the Anglo-American values; (c) learning to adjust to the dominant system, while remaining identified with the traditional culture (Laframboise, Coleman & Gerton, 1993; Montalvo, 1991; Padilla, 1980; Szaponick and Kurtines, 1980). The lack of consensus in defining acculturation

has generated more ambiguity in understanding Hispanics' experience in the U.S (Montalvo, 1991). It is unclear whether acculturation improves Hispanics' opportunities, social integration, and psychological adjustment or if it is directly linked to the influence of skin color for various Hispanics or both (Montalvo, 1991). It seems important to clarify what the acculturation process entails and later attempt to study its relationship to skin color. I will first review the evolution of the acculturation literature.

The Historical Conceptualization of Acculturation

Acculturation research began in the 1930s and has remained in the realm of cultural anthropology with a focus on the increased contact between third world nations and industrialized Western societies (Olmedo, 1980). Researchers examined the interaction between nations on an individual level, focusing on the immigrants' personal level of change, which refers to changes in attitudes, behaviors, beliefs, and values (Cuellar, Arnold, & Maldonado, 1995). Early researchers (Goldberg, 1941; Park, 1928; Stonequist, 1935) predicted that the changes inherent in the acculturation process led to "intra-psychic conflict," serving as the foundation for marginality theory (Park, 1928; Stonequist, 1935).

Marginality theory addresses the negative consequences of dual culture exposure, with the assumption that the individual is unable to make satisfactory adjustment from one social group or culture to another. Individuals find themselves on the margin of each but a member of neither (Park, 1928; Stonequist, 1935). Both Park (1928) and Stonequist's (1935) marginality models ascribe personal characteristics to the marginal person. The person feels isolated

and closed off from members of either culture, resulting in feelings of inferiority, self-hatred, and low self-esteem (Padilla, 1994). The essence of the marginality theory is that living in two cultures is psychologically undesirable because managing the complexity of dual reference points generates ambiguity, identity confusion, and normlessness.

Studies on marginality were numerous during the fifties but ended abruptly because of the narrow perspective on dual culture interaction (Golden, 1987). Marginality studies solely emphasized the negative ramifications of acculturation, leaving out the positive aspects of coming in contact with a new culture. Marginality studies generated a need for a broader view of acculturation, which included both positive and negative consequences of dual culture interaction. Research shifted towards a unidimensional model of acculturation, which is the study of the linear function of the amount of time a person has been exposed to the host culture (Cuellar et al., 1995; Falicov, 1998; Szapocznik & Kurtines, 1980). Several models were developed based on the unidimensional model of acculturation. I will now review the most cited unidimensional models of acculturation to provide a context for how the field of psychology has historically conceptualized acculturation.

Unidimensional models. Three unidimensional models of acculturation have been frequently used: a. the assimilation model, b. the acculturation model, and c. the fusion model. The basic premise of the assimilation model is that while the individual strives to attain a new cultural identity, he or she does away with the old, by learning new behaviors associated with the assimilative culture and

casting off the inoperable behaviors associated with the culture of origin. Implicit in the assimilation model is a hierarchical relationship between the two cultures (LaFramboise, Coleman & Gerton, 1993). Critics have argued that assimilation is impossible for ethnic minority groups. Immigrants can learn the language and the culture but will always be identified with the minority culture by the majority, as well as by those in their cultural group. This experience results in the immigrant population feeling disconnected from the new culture (Falicov, 1998).

The acculturation model, on the other hand, implies that the individual, while becoming a competent participant in the new culture, will always be identified as a member of the minority culture. The acculturation model differs from the assimilation model because the immigrant's goals differ. Unlike the assimilation model where the immigrant chooses to adopt the customs of the new culture, the acculturation model suggests that the immigrant learns the customs of the new culture in order to excel in the new environment. More specifically, the individual will learn the behaviors necessary to survive in the new culture before adopting the values of the majority group. As a result, the individual is constantly expanding his or her role repertoire in order to fit in with the majority culture. A major limitation of the acculturation model is the automatic assumption that the minority person will want to excel in the new culture in order to gain material wealth and status. It remains unclear whether socioeconomic status influences the immigrant's second culture acquisition (LaFramboise, et al., 1993).

The fusion model differs from the other unidimensional models because it looks at acculturation from a macro level (social/group), suggesting that cultures

sharing an economic, political, or geographic space will fuse together until they are indistinguishable from the new culture encountered. The fusion model is the basis for the melting pot theory in that all cultures can coexist equally and fuse together to create a new culture. The fusion model does not assume any cultural superiority; rather the cultures in contact have equal influence on each other. The process of acculturation entails creating a new common culture and disposing of the minority individual's ethnic identity (similar to the assimilation model). The usefulness of the fusion model is uncertain because there is no clear indication that the "new" (equally coexisting) culture exists. In addition, there are no empirical data describing the influence of the minority group on the majority group if in fact both cultures have an equal impact on each other (LaFramboise, et al., 1993).

The unidimensional models, addressed above, are dependent on the degree of exposure to the dominant society. Due to the pluralistic society that exists in the United States, the unidimensional models have been criticized as being overly simplistic. Unidimensional models tend to imply a linear approach where the affiliation of the new culture is directly related to the immigrant's affiliation with the culture of origin (Padilla & Lindholm, 1984).

Bidimensional models. Szapocznik and Kurtines (1980) were among the first scholars to emphasize the bi-dimensional model of acculturation. Bi-dimensional models incorporate additional factors into the acculturation process. First, the cross-cultural exchange in which acculturation takes place can be monocultural, immersing oneself in one culture, or bicultural, participating

simultaneously in both cultures (Szapocznik & Kurtines, 1980). Second, the individual chooses the extent and manner to which he or she will affiliate with either the second culture or his or her culture of origin (LaFramboise, et al., 1993). The bidimensional process of acculturation takes place along an overt behavioral dimension, as well as influences the immigrant's values orientations. Two bidimensional models have received the most attention: the bicultural model and the alteration model.

The bicultural model of acculturation states that if the cultural context within which acculturation takes place is bicultural then the acculturation process will take place along two individual dimensions. The first dimension consists of a linear process of accommodating to the host culture. The second dimension consists of a complex process of relinquishing or retaining the characteristics of the culture of origin. The essence of the bicultural model is that acculturation relates to the amount of time a person has been exposed to the host culture, while retaining the characteristics of the culture of origin, depending on the degree and availability of individuals from the culture of origin. For example, second-generation youths will learn their culture of origin norms by the family and the community and will be introduced to host-cultural norms by educational institutions (Szapocznik & Kurtines, 1980). Unlike unidimensional models of acculturation, the bicultural model assesses the degree to which a person feels comfortable in each culture independent of the other. Bicultural models have been constrained due to the complexity of measuring the identification with both the culture of origin and the second culture. As a result, the research in the area is

limited due to the complexity in methodologies (Padilla & Lindholm, 1984).

The premise of the alternation model of acculturation posits is that it is possible for an individual to know and understand two different cultures and, ultimately, alter his or her behavior to fit a particular social context. The alternation model assumes that the individual can interact with both cultures without losing his or her cultural identity or without choosing one over the other (LaFramboise et al., 1993). Unlike the unidimensional models, the alternation model suggests that an individual can sustain a positive affiliation with both cultures without choosing between them. In addition, the model does not assume a hierarchical relationship between the two cultures. Individuals who can alternate their behavior to fit the targeted culture will be less anxious than persons who are assimilating (LaFramboise et al., 1993). LaFramboise et al.'s (1993) suggested that the alternation process is far from the neat progression proposed by the unidimensional models. Cultural themes blend, allowing immigrants to remain neutral to the old versus the new culture. Furthermore, the immigrant can identify with two perspectives, languages, and cultures, depending on the context or the topic (Falicov, 1998), making it difficult to measure empirically their acculturation process.

Although acculturation has been a complicated concept to define, it is necessary to construct a useful definition of acculturation as it relates to the experience of Hispanics in the United States. The process of acculturation has important and divergent implications for Hispanics' experience in the U.S. For the purpose of this study, I defined acculturation to approximate the multifaceted

Hispanic experience. Cuellar et al.'s (1995) definition seems to include the important points of acculturation (addressed above) to formulate a well-rounded definition of acculturation. I used this definition to determine how skin color influences the Hispanic experience in the United States.

Conceptualizing Acculturation for the Purpose of this Study

Cuellar et al.'s (1995) broad definition of acculturation seems to capture the Hispanic experience, as well as provide a simplified understanding of acculturation that allows researchers to measure the concept. The authors define acculturation as “the phenomena which results when groups of individuals from a different cultural background come into continuous first hand contact, with subsequent changes in the original cultural patterns of either or both groups”(p. 278). The Hispanic population consists of a heterogeneous group of individuals from various countries within Latin America and the Caribbean that vary in terms of their cultural histories. Therefore, the definition of acculturation is intended to be general enough to include various cultural backgrounds that may affiliate with the new culture. Second, the existing complexity of the Hispanic experience within the U.S. calls for a bi-dimensional approach of acculturation. Hispanic immigrants in the United States have the opportunity to come into contact with individuals from their cultural background (Ojito, 2000), as well as those from the new culture. As a result, a bi-dimensional approach allows for the measurement of both cultures independently, which seems like a more appropriate indication of the Hispanics' level of acculturation. Hispanics adjusting to a new culture may, simultaneously, retain aspects of their culture of origin and adopt characteristics

of the new culture.

Changes resulting from the acculturation process can occur at various levels of functioning: behavioral, affective, and cognitive (Cuellar et al., 1995). When investigating Hispanics acculturative process it seems necessary to study behavior through various means, such as language, customs, and cultural expressions. Affective changes can be measured through emotions that have cultural connections. Finally, cognitive changes can be captured by the individuals' fundamental values (Cuellar et al., 1995). In addition, it is important to investigate the relationship between acculturation and Hispanics' skin color. Few studies have investigated acculturation as it relates to Hispanics' skin color.

The main purpose of this study is to investigate whether skin color is a significant predictor of the acculturation process. In addition, prior studies have narrowed their investigations to specific Hispanic subgroups (i.e. Mexicans and Puerto Ricans), which leave the relationship between Hispanics' skin color and acculturation unclear. Moreover, it is unclear whether the subgroup's national origin (Mexico and Puerto Rico) is confounding the relationship between skin color and acculturation. The present study will attempt to include various Hispanic subgroups in order to determine if skin color significantly predicts acculturation. Prior investigations may have limited understanding of the influence of skin color on Hispanic acculturation due to the limited number of ethnic subgroups. However, it is important to review the existing literature.

Skin Color and Hispanic Acculturation

Hall (1994) stated that light skin is ideal in the United States because it represents status within the dominant mainstream population, suggesting that Hispanics would identify with light skin when applicable and use it as a point of reference (by identifying as White, when possible) in their efforts to ensure their assimilation, since skin color is verified upon sight. Furthermore, Hall (1994) suggested that Hispanics with dark skin might not have the same opportunities to assimilate successfully, which creates an internal conflict. Dark-skinned Hispanics may internalize the values of the majority culture but are rejected by the majority culture. To reduce the internalized conflict, dark-skinned Hispanics will aspire to assimilate by valuing and internalizing all aspects of the majority culture, including the idealization of light skin color at the expense of their racial identity (Hall, 1994). According to Hall (1994) there are definite reasons to suspect a relationship between skin color and acculturation.

Codina (1990) investigated the relationship between skin color (measured by interview ratings), low SES (measured by education and family income), and acculturation (measured by language acquisition) and mental health, using a Mexican/Mexican American sample (N=991). Data were collected from the National Chicano Survey, a national area probability sample of Mexican-origin heads of household. The results indicated that U.S. born participants with darker skin colors (including Indian features) who reported low SES had lower self-esteem, while Mexican born participants with low SES had higher self-esteem. In addition, Mexican-born participants, choosing the Mexican label had darker

skin color, as well as more Native features and less English proficiency. The Mexican born participants choosing the Mexican American label had lighter complexions, as well as European features and higher levels of English proficiency. The findings seem to support the stereotypical beliefs that dark Hispanics retain their native language because they are unable to assimilate, developing a marginal identity (Montalvo, 1991).

Vazquez et al. (1997) examined the effects of skin color on acculturation levels and of both skin color and acculturation on Mexican American students' interest in the Mexican American community. The participants were 102 Mexican American undergraduate students at a southwestern university. Thirty-seven percent of the participants were male and 63% female. Participants' generation level ranged from first to fifth generation: 9% first generation, 15% second generation, 10% third generation, 10% fourth generation and 55% fifth generation. Participants completed the Phenotype Scale (Vazquez et al., 1997), which assesses self-reported skin color ratings, ranging from fair to dark brown), the Acculturation Rating Scale for Mexican Americans (Cuellar, Harris, & Jasso, 1980) and the Interest in Community Scale (Blackwell, 1983).

The results indicated that skin color is related to the participants' level of acculturation, with the dark-skinned participants having a lower (more Mexican-oriented) level of acculturation than the other participants. In addition, Vazquez et al. (1997) found that skin color and acculturation level influenced the level of interest in the Mexican community. Mexican-oriented and bicultural participants with dark skin showed a higher interest in the Mexican community than Anglo-

oriented participants. On the other hand, in the Anglo-oriented group, dark-skinned participants showed the lowest interest in the Mexican community (Vazquez et al., 1997). The authors contended that as a group, dark-skinned individuals tend to be less acculturated. Therefore, those who do become more Anglicized tend to reject any connection to their culture of origin. One explanation for these results is that skin color may influence the individual's motivation to acculturate, with dark-skinned individuals feeling rejected by mainstream culture and turning to their culture of origin as support. However, the participants that are able to identify with Anglo culture will want to maintain their status with the Anglo culture and reject all aspects of their native culture (Vazquez et al., 1997).

Several limitations in the study described above should be noted. Seventy-five percent of the sample was third to fifth generation Mexican American, which limits the usefulness of the study in looking at recent immigrants. Second, skin color was determined by self-report. It seems important to cross validate self-reports with other criteria, such as an objective measure of skin color. Third, it seems essential to replicate the study using other Hispanic subgroups, outside of the Mexican American population, which would provide a broader understanding of the influence of skin color.

For the most part, Vasquez et al. (1997) illustrated that skin color and acculturation are important in understanding Mexicans' experience. Since, Mexicans are a subgroup of the Hispanic population, investigating these variables among a more generalized population would provide a clearer understanding of

the influence of skin color. Furthermore, the concept of SES has also been related to skin color (Codina, 1990). To determine the influence of skin color on Hispanics' experience, it seems necessary to investigate how it relates to SES. I will review the existing literature on Hispanics' skin color and SES and later provide the historical conceptualization of SES.

Hispanics' Skin Color and SES

Telles and Murguia (1990) examined the influence of skin color on Mexican Americans' income by investigating whether differences exist among the various phenotypic groups. Using the National Chicago Survey, representing between 88 and 90 percent of the population identified by the 1970 U.S. Census as having Mexican ancestry, the authors sampled 253 working males between the ages of 18 to 65. Selection was based on those participants who were currently employed and for whom available information for all variables was provided. Of the 253 individuals, 66 were categorized as light, 107 as medium, and 80 as dark as determined by the raters' perception of the participant. The validity of the skin color ratings was based on the correlation between respondents' region of origin/ancestry and their designated skin color. For example, darker respondents indicated that they were from southern Mexico, where there is a greater proportion of pre-Colombian (Indigenous) population, whereas lighter respondents reported origins from northern Mexico, where historically there has been greater migration of individuals with European ancestry.

The study tested whether income and education differed for each of the three phenotypic groups and the results indicated a striking difference between the

light and dark skinned groups. Those of a medium phenotype (skin color) reported slightly lower incomes than light males. The mean income for light individuals was \$13,008 (SD = \$5,729), medium individuals' earnings averaged \$12,804 (SD = \$5,896), and for dark persons earnings were \$11,287 (SD = \$4,804). Dark Mexican Americans earned less compared to light phenotype individuals. In addition, education varied by phenotype with the light skin group completing an additional year of school compared to the other two groups. The study, as a whole, demonstrated that phenotype is an important variable connected to income and educational attainment of Mexican Americans, with dark and native-American looking individuals of Mexican descent completing less schooling and earning less than their lighter counterparts (Telles & Murguia, 1990). Yet, the study focused on intragroup differences, with the differences between other Hispanic ethnic groups left unexplored. The indicators of phenotype were based on the subjective interviewer ratings, which put into question the reliability of systematizing the skin color variable. In addition, the light skin group seemed relatively small, limiting the generalizability of the results.

Arce, Murguia, and Frisbie (1987) also examined whether Mexican Americans' physical appearance enhanced their life chances as measured by SES. To illustrate whether phenotype is associated with SES, the authors used the 1979 Chicano Survey, representative of 88 to 90% of the total United States population of Mexican ancestry. For the study, 991 interviews were completed in the southwestern United States, including Arizona, California, Colorado, New

Mexico, and Texas and a small portion represented the Chicago metropolitan area. Participants were selected on the sole criteria of having Mexican ethnic origin. From the sample, 38% of the respondents were born in Mexico, and 59% were female. The interviews, lasting an average of three hours, covered numerous topics, including language, culture, social identity, political consciousness, mental health and personal well-being, work and labor force histories, and family life. Skin color was assigned by the interviewer based on phenotype and physical features, using a five-point scale, with 1 labeled “*very light*” and 5 labeled “*very dark*.”

The results indicated significant differences in phenotype influencing the life chances (more specifically, education and occupational history) of Mexican Americans. Respondents with parents in the light category reported the greatest number of years of formal education, as well as the greatest occupational prestige, while the lowest socioeconomic levels were found in the “dark” category. A similar pattern was found for respondents’ own life opportunities. Respondents categorized as light, averaged 9.5 years of education, had an occupational ranking of 25.3 [the occupational prestige score are based on the Duncan (1961) socioeconomic index as revised by Featherman and Stevens (1982) which allocates rankings to various occupations using the total labor force] and a mean income of \$12,721, while the dark participants had completed an average of 7.8 years of schooling, had an occupational prestige score of 20.7, and an average income of \$10,480. As a result, the study suggests that a relationship exists between participants’ phenotypical characteristics and the educational, occupational, and

income attainment of the participants over the past two generations (Arce et al., 1987).

Several limitations in the study described above are worth mentioning. Again, the indicators of phenotype were based on the subjective interviewer ratings since the raters had no points of reference. It is unclear whether interviewers systematically assigned participants to a phenotype category, which suggests possible interviewer bias, increasing the likelihood that the measure of skin color is unreliable. Second, the authors neglected to mention how occupations were ranked in order to determine occupational prestige for participants. Third, the authors did not integrate the role of acculturation as it pertains to the life chances of Mexican Americans in the sample. More specifically, it is ambiguous whether acculturation influenced the opportunities measured in the study: education, occupational prestige, and income. To capture the relationship between Hispanics' skin color and SES, it is important to first illustrate the existing challenges of measuring SES.

Historical Conceptualization of SES

Historically, SES has been a challenging term to conceptualize due to the tremendous variability in the theoretical underpinnings and measures of social class. Sociologists have made various attempts in defining hierarchical positions within society, which have resulted in little consensus (Liberatos, Link & Kelsey, 1988). During the first two decades of the twentieth century, researchers concentrated on occupational prestige, which refers to occupational ranking, as the strongest indicator of social status. More specifically, during the industrial

revolution, society emphasized occupational ranking rather than other status attributes (ancestry and religious or political office) as an index of class status. Occupational position became a marker of aptitude, character, training skills, and other qualities. Consequently, occupation showed the highest correlation with the prestige rank bestowed on the family (Nam & Powers, 1983).

Occupations were categorized in two ways: first, by the public's opinion of occupational value and later, by the educational requirements and monetary payoffs related to the occupation (Liberatos et al., 1988). Many of the early efforts categorize occupations involved asking college and high school students to rank familiar occupations based on the social prestige assumed to be associated with the occupation (Nam & Powers, 1983). Various studies have found common agreement in the rankings of occupations at extreme ends of the scale, with less agreement in the ranking of occupations in the middle range (Nam & Powers, 1983). Nam and Powers (1983) suggested that the participants in these studies might have rank ordered unfamiliar occupations in the middle, which limits the usefulness of such measures. With a limited consensus about the overall occupational ranking, popular judgment has been an inadequate indicator of occupational prestige. Furthermore, the studies' participants was confined to students and teachers with only a modest list of occupations to be ranked (Nam & Powers, 1983).

During the 1950s, researchers (Duncan, 1961) sought out a more precise measure of occupational prestige. As a result, the focus shifted towards education and income indicators (factors that were believed to be associated with

occupation). Education and income were markers believed to be associated with power positions (Liberatos et al., 1988). Duncan (1965) suggested that education is a prerequisite for an occupation and income is the reward. Therefore, occupation should be measured as the intervening activity between the two variables. Researchers (Nam & Powers, 1983) have suggested that Duncan's (1961) conceptualization of social class is misleading, suggesting that using education and income would be influenced by how these variables vary over time, which limits the stability of the occupational ranking. Furthermore, researchers (Nam & Powers, 1983) have questioned whether education and income capture the essence of occupational prestige. There is considerable evidence that other factors enter into the rankings (Nam & Powers, 1983).

Susser, Watson, and Hopper (1985) indicated that sociologists, in the 1970s, shifted their attention to single indicators of social class as a result of the complexity related to measuring occupations discussed earlier. Researchers opted for a single measure of social class that would capture its meaning. Education was then investigated as a single indicator of social class (Susser et al., 1985). Education was considered an appropriate indicator since the amount of education and knowledge that persons acquire affect their behavior, which influences lifestyle and social networks. Because of the simplicity of collecting data related to educational background, education has become the most popular measure of social class (Liberatos et al., 1988). Education is considered to be a more stable measure over one's lifetime than either occupation or income. However, several disadvantages have been related to using education as the sole indicator of social

class. Education does not lead to high occupational standing and high income (factors that influence higher status). Therefore, it is difficult to assume an individual's social class simply by looking at their educational background (Liberatos et al., 1988). For example, Blacks and women obtain less economic return from their education than do white males (Faia, 1981; Susser et al., 1985). Furthermore, educational attainment in the United States has become increasingly homogenous due to the mandatory minimum age for leaving school and the greater availability of higher education (Nam & Terrie, 1982). As a result, more people have completed high school and college in the last 20 years than in any previous periods. Conversely, there is no empirical evidence that the increase in high school and college graduates has increased the population's overall social class status (Liberatos et al., 1983).

Other researchers (Coleman & Rainwater, 1978) opted to investigate whether income was the optimum measure of social class. Differential amounts of income influence opportunities for education and different lifestyles. Furthermore, income reflects individual's quality of life and provides access to extraneous resources and social amenities (Liberatos et al., 1983). In an investigation of social class measurement, Coleman and Rainwater (1978) had raters rank order occupations of hypothetical persons according to status. The results indicated that income was the most compelling predictor of prestige. Traditionally, income has been used as a quantitative variable or grouped into income brackets. Grouping income into brackets has been a more popular approach given that people tend to express discomfort about providing exact

income information (Liberatos et al., 1983).

Several limitations have resulted from the use of income as the single indicator of social class. Haug (1977) argued that income is not an appropriate single indicator of social class. Income is not a direct reflection of educational requirements and it fluctuates considerably within occupations. For example, a sanitation worker tends to earn more than a teacher who has more education and is usually considered to have more status. In addition, income is relatively unstable over time, which poses a challenge in determining social class status. More specifically, income is age dependent with wages typically increasing during one's occupational career and leveling off after retirement, which is not a direct reflection of class stratification. Finally, concentrating on income alone does not account for differences in household sizes, as well as the cost of living in the various regions. Therefore, the significance of a particular salary can vary from one situation to the next, which minimizes its applicability in defining social class (Liberatos et al., 1983).

Deonandun, Campbell, Ostbye, Tummon and Robertson (2000) documented the use of geographic areas of residence as an indicator of SES, which is typically used in the absence of specific and detailed records. Although, area-based measures are not as popular as the other indicators of SES, they are worth mentioning. Area-based measures rate geographic areas of residence in terms of social and economic conditions and are based on estimating the average wealth of particular regions of the United States. This approach is relatively inexpensive and easy to use. Area-based measures is obtained by looking at

Census data (Deonandun et al., 2000; Krieger, Williams, & Moss, 1997). Area-based measures may provide a more stable estimate of people's relevant economic circumstances, as compared to more volatile income data or more static measures of education (Krieger et al., 1997). Similar to other single indicators of social class, there are disadvantages in simply using an area-based measure as an indicator of social class. Area-based indicators allocate characteristics of the area of residence to the person. As a result, area-based indicators assume homogeneity within a given geographic area, which may be misleading especially in areas where even small segments can be heterogeneous. For example, in urban areas, a one-mile radius may contain tremendous variability in status. Second, outliers in the neighborhood may drastically change the neighborhood's socioeconomic position and not adequately measure individual social class standing (Krieger et al., 1997; Liberatos et al., 1983)

Historically, single indicators of social class have various shortcomings, which limit their usefulness. Coupled with the measurement problems associated with social class is the limited research available on social class and ethnic minorities. The past studies that explored social class used primarily Whites in their sample, which limits our understanding of how social class influences all groups. I will now review the limited number of studies investigating SES using various ethnic groups.

Measuring SES with Ethnic Groups

Dana and Whatley (1991) suggested that because of past discrimination, minorities in the United States do not have the same social and economic

opportunities (i.e., high paying jobs, prestigious schools) as Whites and, as a result, score lower on SES measures than those in the majority culture. Edwards-Hewitt and Gray (1995) investigated whether African Americans' self-reported social class standing would be lower than Caucasians, by comparing the two ethnic groups' measures of social class. The authors used a sample of 285 college students (39% were African Americans and 61% were Caucasians) from three universities in an eastern city and compared self-rating of SES with a standard measure of SES (Hollingshead four-factor test; Hollingshead, 1975). The results indicated that both African American and Caucasian university students underestimated their self-reported socioeconomic status when their ratings were compared to the scores obtained by the composite measure used (Hollingshead four-factor index).

The study indicated that regardless of ethnicity, SES is a difficult measure to ascertain. Unfortunately the study only included two ethnic groups, which leaves unclear whether Edwards-Hewitt and Gray's (1995) results of individuals underestimating their social class standing would generalize to other ethnic minority groups. Furthermore, the composite measure used in the study (Hollingshead four-factor index; Hollingshead, 1975) was based on a sample of Whites from Connecticut, which seems to limit its usefulness when used with the African Americans in the sample.

Entwisle and Astone (1994) investigated the complexity of assigning social class status to ethnic minorities. The authors suggested that multiple indicators of SES should be used when focusing on an ethnic population. Single

indicators would not provide the relevant information necessary to ascertain social class status of ethnic minorities. The multiple indices of SES, to be used with ethnic minorities include the following: income, education, and social capital, which pertain to resources available to ethnic minorities in the community, including extended family.

Entwisle and Astone (1994) conceptualized income as present economic status, as well as longer-term investments (i.e., mortgage and/or monthly rentals). Education was defined as the different degrees earned, as well as the highest grade in school completed, which captured non-traditional professionals (Entwisle & Astone, 1994). Finally, the authors suggested asking about the resources embodied in social relationships. Ethnic minorities use outside resources (i.e., the community and extended family) as a source of economic support, which is lost in traditional measures of SES (Entwisle & Astone, 1994).

Tienda and Rajzman (2000) expanded on the notion of minority families using outside support as economic resources to immigrant families. Immigrants have the tendency to experience economic hardship as they arrive, limiting the value of income as a sole indicator of social class. To understand immigrants' economic mobility, it is important to identify the whole family's sources of income. Furthermore, acknowledging the multiple income sources of immigrants and their families better illustrates their economic position.

The authors demonstrated the significance of assessing immigrants' economic well-being using households as units of study rather than individuals in their analysis. Three hundred and thirty interviews were completed in the community

areas of Chicago, using a household instrument that obtained demographic and socioeconomic information for all individuals residing in the home. Over three-fourths of the sample population was Mexican born, with 44% of the respondents being men.

Tienda and Raijman (2000) compared their data with the census data and found that census data tend to underestimate immigrants' economic status. Conventional measures are used to focus on the maximum salary per family, which obscures the role of informal income. The results of the household survey indicated highly complex strategies in obtaining family income, involving multiple wage earners in the formal and informal labor market, as well as non-labor income sources, such as financial support from extended family. As a result, the household survey provides rich information about the economic strategies of recent immigrants. However, the survey centered on one ethnic subgroup from one region in the country, which seems to limit the generalizability of the findings. Furthermore, the authors did not examine systematically why families would opt to pool their economic resources together and when this may occur.

Fuligni and Yoshikawa (2003) also studied the socioeconomic status of immigrant families. Immigrant families demonstrate behavioral patterns associated with their native culture (Fuligni & Yoshikawa, 2003). Therefore, traditional SES measures do not capture the environmental and socialization processes (i.e., status and prestige) for immigrant families as they would for American-born families. Virtually all immigrant groups come from societies with

lower overall levels of educational attainment than the United States, which has various types of educational systems (Fuligni & Yoshikawa, 2003). For example, “Mexico requires six years of compulsory schooling, compared to 10 years in the United States. Therefore, a Mexican with a high school education is at the 70th percentile in terms of educational level, whereas an American with a similar amount of education is only at the 16th percentile in the United States” (Fuligni & Yoshikawa, 2003, p. 112). Therefore, it seems necessary to determine whether immigrants received their education in the United States or in their native countries, which may influence the immigrant family’s social class status.

Measuring SES within a nontraditional population (i.e. ethnic groups) has added to the complexity of the measurement of SES in general. It seems necessary to measure SES while still being able to capture the Hispanic experience in the United States. SES has important implications for Hispanics’ acculturation process in the U.S. (Arce et al., 1987). For the purpose of this study, I have used several indicators of SES that seem likely to approximate Hispanics’ experience in the United States.

Conceptualizing SES for the Purpose of this Study

Various researchers have indicated that SES is a multidimensional concept that includes the following: income, occupation, and education (Bornstein & Bradley, 2003; Entwisle & Astone, 1994; Liberatos et al., 1988). Therefore, it is important to consider multiple indicators of SES for the Hispanic population. Income will be determined by including the total familial income in order to incorporate the idea of social capital addressed earlier. Occupation as an indicator

of SES will be ascertained by rank ordering the prestige of occupations, again using census data. In using these multiple indices to verify Hispanics' social class standing, it seems necessary to determine if skin color is associated with Hispanics' SES.

In sum, only two studies were located that investigated the relationship between SES and Hispanics' skin color. The lack of research in the area indicates the need to investigate these variables and their potential influence on Hispanics' acculturation. Furthermore, SES has been conceptually challenging, going through various iterations in measurement. Measures of SES initially used single indicators of occupational prestige, education, income, and area-based measures (Krieger et al., 1997; Liberatos et al., 1988; Nam & Powers, 1983). Presently, investigators use multiple indices to measure SES (Bornstein & Bradley, 2003; Entwisle & Astone, 1994; Liberatos et al., 1988). In addition, investigators have recently attempted to classify social class for ethnic minorities, by including non-traditional methods of assessing ethnic individuals' educational level, occupational prestige, and familial income (Entwisle & Astone, 1994; Tienda & Rajjman, 2000). Investigators have also made attempts to measure ethnics' (more specifically, Mexicans) SES in relation to their phenotype (skin color; Arce et al., 1987; Telles & Murguia, 1990). Both studies looking at skin color and SES found that correlations exist between participants' complexion and their social class standing. Although the studies addressed earlier have their limitations, both studies add credence to the notion that skin color relates to Mexican Americans' SES. Yet, Mexicans are only a subgroup of the Hispanic population.

Investigating these variables among a more generalized population might provide a clearer understanding of the significance of skin color. It also remains unclear, which of the two variables better explains Hispanics' acculturation. Furthermore, the concept of SES has also been related to discrimination, with those individuals who are highly discriminated against having fewer opportunities and as a result, lower social class status (Arce et al., 1987; Relethford, Stern, Gaskill, & Hazuda, 1983; Telles & Murguia, 1990). In order to determine the significance of skin color on Hispanics' acculturation, it seems necessary to investigate how these concepts relate to discrimination. I will now review the historical conceptualization of discrimination.

The Historical Consequence of Discrimination in the U.S.

Historically, groups of people have had limited opportunities available to them because of their race, ethnicity, gender, and sexual orientation. Furthermore, there were definite inequities between the dominant culture-typically defined as white, middle class, heterosexual, and male and the non-dominant culture (Medina & Luna, 2000; Rothenberg, 2001). To understand the impact of discrimination on Hispanics, it seems necessary to illustrate the extent to which discrimination influenced U.S. history. Discrimination has been defined as unfavorable or unfair treatment of a person or class of persons in comparison to others who are not members of the protected class because of their race, sex, color, religion, national origin, age, physical/mental handicap, and/or sexual orientation (Espino & Franz, 2002; Rothenberg, 2001). Racial minorities and women have historically experienced the most discrimination in the U.S

(Rothenberg, 2001). Loewen (1995) highlighted that racial slavery is the predominant theme in American history, generating the sharpest and deepest division in American life. Ogbu (1978) illustrated the ramifications of the social divisions in the U.S. by discussing a framework with which to understand minority students' academic challenges and the feelings of alienation faced by many of these students. Ogbu's (1978) theoretical framework is that caste-like minorities (involuntary minorities)--those incorporated into society by enslavement, conquest, and colonization--have a history of subordinate status and oppression in the United States. As a result, ethnic minority students of caste-like status receive messages that school success leads to a better socioeconomic quality of life, but they also understand that this does not reflect the realities of their communities (Ogbu, 1978). Women have also had to overcome various barriers in U.S. society. Medina and Luna (2000) addressed the many barriers women face as they enter academic positions, ranging from feelings of alienation to lower salaries as compared to their male counterparts. It seems that discrimination has taken various forms, which need exploration to understand how discrimination may influence Hispanics' experience in the U.S.

Discrimination has historically been enacted at an individual, organizational, and structural level (Rothenberg, 2001). Individual discrimination relates to prejudiced attitudes and behaviors of individual group members that have a harmful effect on members of another reference group (Pincus, 1996; Rothenberg, 2001). For example, Denton and Massey (1993) documented the prejudicial attitudes towards Blacks in the area of housing, with the majority of

Whites suggesting that Blacks do not have the right to live in the same neighborhoods as Whites. Furthermore, a National Opinion Survey (Smith, 1991) asked respondents to compare ethnic minorities on a variety of personal traits. The results indicated that 62% of white respondents thought that ethnic minorities were more lethargic than other groups, 56% felt they were more prone to violence, 53% saw them as less gifted and 78% thought they were less self-supporting, resulting in a greater likelihood to go on welfare. Prejudicial attitudes may result in small and subtle acts of discrimination, which, taken together, may have effects on the life chances of various groups (Denton & Massey, 1993). The discriminatory actions may be intentional or unintentional, but the results are the same, reinforcing prejudicial stereotypes and denying individuals opportunities provided by others (Rothenberg, 2001).

Organizational discrimination is defined as the well-established rules, policies, and practices of organizations that reinforce the discrimination practiced by individuals (Rothenberg, 2001). Organizational actions may favor a particular group (usually white males) having an adverse impact on the opportunities of other groups. Power differences influence how organizational discrimination is enacted. Generally, power is held by the racial group that has controlled most of the economic, political, and social resources in U.S. society (Inman, Huerta, & Oh, 1998). For example, Loewen (1995) wrote a compelling book regarding the educational system's neglect in providing accurate information regarding the history of the U.S. Loewen (1995) suggested that this negligence resulted from the process of making "heroes" out of those in power. Furthermore, Rodin (1990)

indicated that (organizational) discrimination is only enacted when powerful perpetrators (e.g., white males) together reject less empowered groups (e.g., Blacks, females) and not when less empowered groups excluded empowered groups. Discriminatory actions, at the organizational level, occur within the fields of employment, education, housing, and government (Glasgow, 1981; Pincus, 1996).

The bulk of the literature on race and organizational discrimination has focused on Blacks in America, indicating that Blacks have been systematically excluded from prestigious fields of employment, which has resulted in the majority of Blacks consigned to menial jobs and a lower economic status (Denton & Massey, 1993). In addition, considerable evidence point to organizational discrimination within the housing markets (Denton & Massey, 1993). Zubrinsky and Bobo (1996) recently investigated racial residential segregation with data collected in Los Angeles. Using a multiracial sample of adults (N= 4025), the authors examined racial prejudice and discrimination as the reason for residential segregation. The authors measured respondents' openness to living in areas with varying proportions of black, white, Latino, or Asian neighbors. Results indicated that although all groups exhibited some degree of ethnocentric preferences, Whites rather than Blacks preferred same race neighbors, which maintain segregation. In general, Blacks faced the greatest opposition in seeking housing and were recognized as most likely to face discrimination in the housing market.

Organizational discrimination is maintained and perpetuated by structural discrimination, which is the process of discrimination that occurs between these

organizational systems, resulting in a classic cycle of discrimination that reproduces itself (Pincus, 1996). For example, discrimination in education will limit the credentials to get a good job. In turn, discrimination in employment will limit the economic resources to buy good housing (Pincus, 1996; Rothenberg, 2001). Eggers and Massey (1991) documented how the limited availability of low-wage service employment increased the rates of unemployment for black males, which reduced the marriage rates of black women, resulting in a proliferation of female headed households and recurrent poverty in the black community, with the entire process exemplifying structural discrimination. The issue of seniority in employment is another example of structural discrimination. Employers, for example, have the tendency to lay off workers employed for fewer years during budget cuts. Minorities usually are the last hired, therefore disproportionately representing those who are laid off. As a result, an assumed race neutral situation will have a negative impact on the minority population (Pincus, 1996). Damaging social consequences follow structural discrimination, creating uniquely disadvantaged environments that become increasingly isolated from the rest of society. Furthermore, structural discrimination constrains life opportunities irrespective of personal traits, individual motivations, or private achievements (Denton & Massey, 1993).

The process of discrimination, as described above, seems to be enacted when subcultures interact with the majority culture. Therefore, discrimination can be a salient factor in how Hispanics acculturate to the U.S. Understanding discrimination in the Hispanic population will help explain Hispanics'

experiences in the United States. For the purpose of this study, I have attempted to define discrimination, using the information addressed above, that will relate to the experiences of Hispanics.

Defining Discrimination for the Purpose of this Study

For the purpose of this study, I have conceptualized discrimination as the limited opportunities afforded to ethnic minorities due to their interactions with prejudicial others, on both an individual and organizational level. The economic, political, and social patterns are perpetuated and maintained by those in power (which tend to be Whites) resulting in disadvantages for minorities (Denton & Massey, 1993; Rothenberg, 2001). The patterns may appear neutral but may also justify unequal results, limiting the life chances of minorities. Therefore, it seems necessary to explore how discrimination has related to the Hispanic experience in the United States.

Hispanics' Experience and Skin Color Discrimination

Relethford et al. (1981) investigated skin color variation among 393 Anglo Americans and 930 Mexican Americans in San Antonio, Texas, from October 1979 to August 1981. Three target areas in San Antonio were selected to represent three distinct social classes: the barrio (a low income neighborhood), the transitional neighborhood (a middle income census tract neighborhood), and the suburbs (a high income tract neighborhood). The variability in skin color was analyzed among the target areas: for Anglo Americans, two target areas were detected, the middle-income neighborhood and the high-income neighborhood, and for Mexican Americans all three target areas were observed. Skin color was

measured during on-sight interviews by using a spectrophotometer, which photographs participants' pigmentation. The authors selected participants' upper inner arm since it is an area less exposed to sunlight. The results indicated that the skin color of Mexican Americans was darkest in the barrio sample, lighter in the transitional sample, and lightest in the suburban sample. There were no differences on skin color variation for Anglo Americans target areas. As a result, for Mexican Americans, unlike the Anglo American participants, skin color was associated with the environment in which they lived (Relethford et al., 1983).

Relethford et al.'s (1983) study provides useful information regarding the relationship between skin color and the life opportunities of Mexican Americans. Mexican Americans with darker complexions were living in lower class neighborhoods, compared to the lighter Mexican Americans and Anglo Americans in the sample. Yet, the comparative aspect of the study was limited Mexicans versus Whites in an urban area in Texas. It would seem fruitful to expand the study to include other Hispanic groups from various environmental settings: urban, rural, and suburban. In addition, the study did not take into account the acculturation process of the Mexican population and its influence on the living environments. To better understand the influence of skin color on Hispanics' housing opportunities, these issues need to be addressed.

Rosenbaum (1996) examined the relationship between racial identity and discrimination in housing patterns in New York City by using a multinomial logit model with a sample of 5,726 households drawn from over 18,000 public-housing apartments. Five mutually exclusive categories of race (using the categories of

the U.S. census) and Hispanic origin were used: Anglo (non-Hispanic White), African American (non-Hispanic Black), White Hispanic, other-race Hispanic, and Black Hispanic. Rosenbaum hypothesized that White Hispanics had a competitive edge over African Americans, other-race Hispanics, and Black Hispanics in obtaining apartments that were vacated by Anglos. The median incomes reported for the five racial categories used in the sample were as follows: Anglos were at \$24,621; African Americans were at \$14,264; Black Hispanics were at \$13,503; White Hispanics were at \$12,311 and Other-Race Hispanics median incomes were \$10,943. Group differences in household composition were related to the differences in economic status. For example, African American and Hispanic households were more likely than Anglo households to consist of a single parent home, which contributed to their lower incomes. The five groups differed in their pattern of residential locations. African Americans and Black Hispanics were both concentrated in Brooklyn, whereas White Hispanics and other-race Hispanics were predominantly located in the Bronx and Brooklyn. Compared to the other minority groups, White Hispanics were most likely to relocate to Queens, a predominantly Anglo location (Rosenbaum, 1996). The study indicates how housing allocations were related to an individual's racial identity.

The findings indicated that racial/ethnic composition of housing areas was related to the odds of the racial groups obtaining housing. The odds that the families moving in were African American or Hispanic rather than Anglo were greater in predominantly minority locations. The odds of African Americans

(6.94 times greater), White Hispanic (2.32 times greater), other-race Hispanic (2.41 times greater), and Black Hispanic (4.87 times greater) moving into a predominantly minority location were greater than Anglo in-movement. Predominantly minority areas also reduced the odds of White Hispanic in-movement, compared to the odds of in-movement by African Americans (.34 times greater), other race Hispanics (.68 times greater), and Black Hispanics (.48 times greater). Rosenbaum (1996) inferred that the results also indicated the isolation of residential locations of Anglos from those of African Americans and Hispanics, which may result in a barrier that deters minority in-movement to predominantly Anglo housing areas.

Rosenbaum (1996) concluded that unlike other minority households, such as African Americans, other-race Hispanics, and Black Hispanics, White Hispanics are better able to gain access to housing in Anglo sub-areas even though they are not economically in the best position. Furthermore, White Hispanics have a better opportunity in replacing out-moving Anglo households and in gaining access to units in high quality areas. Rosenbaum suggested that White Hispanics are better able than non-White minority members to gain entry into predominantly Anglo sub areas because of their non-Black status. The findings seems to illustrate color prejudice in the housing market, yet the mean incomes of the participants suggest that color prejudice is not simply related to socio-economic status since Blacks in the sample had a higher family income than White Hispanics. It seems necessary to explore whether skin color is, in fact, related to socioeconomic status, as suggested earlier in the paper.

Rosenbaum's (1996) findings are based on an urban setting, which reduces the generalizability of the study to non-urban regions of the United States (rural and suburban settings.) In addition, the sample's median income for all racial groups was at the lower end of annual incomes (the highest median income reported was approximately \$24,000 for the White racial group), which gives a simplified perspective of the influence socio-economic status has on various racial groups' housing location. Moreover, it seems that Rosenbaum focused on the housing decision of lower income participants of various racial groups. The question remains if individuals from various socioeconomic backgrounds would encounter similar housing restrictions as suggested by Rosenbaum. Nevertheless, Rosenbaum indicated that Blacks and Black Hispanics have experienced more discrimination in housing opportunities than other-race Hispanics and White Hispanics. Similar to Rosenbaum, Espino and Franz (2002) investigated skin color discrimination within a Hispanic community.

Espino and Franz (2002) examined the issue of skin color discrimination against Mexicans, Puerto Ricans, and Cubans in the labor market. The authors used the 1990 Latino National Political Survey, a national survey (N=3,145) conducted between July 1989 and June 1990, and the Occupational Prestige Ratings. The Occupational Prestige Ratings measure occupational prestige by using the 1980 U.S. Census job codes, which rank all occupations on a scale from 0 to 100. Face to face interviews were limited to a total of 1,053 Mexicans, 291 Puerto Ricans, and 392 Cubans, in the southwest, Florida, parts of the northeast, and Chicago, since the analysis was restricted to individuals who were employed.

Skin color scores, ranging from 1 (*very dark*) to 5 (*very light*), were obtained by interviewer observation during the course of the interview.

The results indicated that very light Latinos had higher occupational prestige scores than very dark Latinos, although medium-skinned Puerto Ricans had the highest occupational rankings for their ethnic group. Results for Mexicans and Cubans support findings of prior studies addressed above, which have indicated that lighter skin results in higher occupational prestige scores. For Puerto Ricans, the skin color variable produced non-significant results. One possible explanation for this finding may point to national differences. Puerto Ricans are citizens of the U.S., which may limit their experience with labor market discrimination as compared to non-U.S. ethnic groups (Espino & Franz, 2002).

The study addressed above represents the first analysis of labor market discrimination including Hispanic groups other than Mexicans. However, the study misses the complexity of the various Hispanic groups in the United States about skin color and discrimination. It still remains unclear whether skin color explains discrimination for Hispanics across all groups, or if skin color explains national differences, which may influence the discrimination experienced by Hispanic subgroups. Ultimately, the study serves as momentum in trying to explain how skin color factors into the Hispanic population's experiences with discrimination.

Overall, discrimination has been categorized by three distinct levels: individual, organizational, and structural, resulting in people having limited

opportunities available to them because of their race, ethnicity, sexual orientation, etc. Historically, women and ethnic minorities have experienced the most discrimination in the United States (Denton & Massey, 1993; Rothenberg, 2001). Furthermore, the literature focused on Blacks as experiencing the greatest consequence of systematic discrimination, leading to this population's employment disadvantages and limited housing opportunities, to name a few (Denton & Massey, 1993). Hispanics, because of their ethnic minority status, have also experienced discrimination in the United States. It seems that the literature on Hispanics' experience with discrimination is scarce, with the focus mostly on the Mexican population. Even fewer studies have emphasized the influence of skin color on Hispanics' experience with discrimination. The studies reported earlier that do investigate skin color and discrimination limit their investigation to a select number of Hispanic subgroups, making it challenging to generalize these findings to the greater Hispanic population. Furthermore, the studies addressed earlier do not explain how the relationship between skin color and discrimination influences the Hispanic's experience in the United States. To understand the complexity behind the Hispanic experience (i.e., the differences that exist across the Hispanic population) it seems necessary to include other factors that seem salient to Hispanics in the U.S., such as acculturation, SES, and national identity.

Hypotheses

Prior studies have not investigated the relationship between participants' self perceived skin color and their dermaspectrometer reading. Therefore, there is

no clear indication whether a relationship exists between perceived skin color and the objective measure of skin color as measured by the dermaspectrometer.

Hypothesis 1: The stated hypothesis is that a statistically significant and positive relationship between participants' self-perceived skin color and their dermaspectrometer reading exists.

Hypothesis 2: The stated hypothesis is that a statistically significant and positive relationship between participants' dermaspectrometer reading and their level of acculturation exists.

Hypothesis 3: The stated hypothesis is that the dermaspectrometer reading for a broader Hispanic community is expected to significantly predict participants' level of acculturation. Prior researchers (Vasquez et al., 1997) have found a positive relationship between skin color and acculturation using Hispanics. It is expected that these findings would generalize to a broader Hispanic population.

Hypothesis 4: The stated hypothesis is that a statistically significant and positive relationship between participants' socioeconomic status and their level of acculturation exists. Codina (1990) investigated the relationship between participants' socioeconomic status and their level of acculturation, finding significance with the Mexican group sampled. It was expected that these findings would generalize to a broader Hispanic population.

Hypothesis 5: The stated hypothesis is that a statistically significant and positive relationship between participants' amount of experience with discrimination and their skin color exist. The literature on the African-American community indicates that skin color is related to the amount of discrimination experienced by

individuals (Klonoff & Landrine, 1999; Landrine & Klonoff, 1996). It was expected that these findings would also relate to how the Hispanic population experience discrimination in the United States.

Hypothesis 6: The stated hypothesis is that participants' skin color (both recorded and perceived), the multiple measures of SES, nationality, and the Hispanic's perceived experience with discrimination will significantly predict their level of acculturation.

CHAPTER THREE

Method

This chapter presents features of this study related to research instruments, procedure for data collection, participants and statistical analyses. First, the rationale for choosing each of the research instruments, as well as its statistical properties, is addressed. Second, the procedure used to collect the data and the method to ensure the ethical treatment of participants are discussed. Third, the demographics of the participants are described. Finally, the plan for statistical analyses is presented.

Research Instruments

Demographic questionnaire. A demographic questionnaire was used to determine the socioeconomic status of each participant, requiring participants to indicate one parent's educational level (the parent with the highest level of education), that parent's occupational status (using past Census data on occupational rankings) and their family income. More specifically, income was determined by requesting the total household income, which included the family's formal (jobs and professional salaries) and informal financial support (i.e., community benefits) that makes up the family's net income. A copy of the demographic questionnaire is located in appendix A.

Generalized ethnic discrimination scale. Landrine and Klonoff (1996) devised the Schedule of Racist Events for African Americans, which conceptualizes the encounters with racism as culturally specific stressful life events by measuring on a 6-point Likert-type scale the frequency with which

respondents have (a) experienced an event within the past year, (b) experienced an event over their lifetime, and (c) the degree to which they found the event to be stressful (Utsey, 1998). Negative life events portrayed through racial discrimination has been assessed by using the theoretical models and lines of investigation from generic stress research (Landrine & Klonoff, 1996). Therefore, the Schedule of Racist Events was constructed with the generic-stress theoretical paradigm in mind, which allows for the measurement of the frequency of and the appraisal of stressful life events, respectively.

Most recently, Landrine and Klonoff (2003) have created a similar measure (The Generalized Ethnic Discrimination Scale) to ascertain the frequency with which Hispanic/Latinos and Asians encountered discrimination in the past year, over their lifetimes, and the stressfulness of each event, resulting in three scores. The Generalized Ethnic Discrimination Scale is an 18-item scale, including three subscales: the recent racist events (18 items), the lifetime racist events (18 items), and the appraisal of how stressful each event was (17 items). The scores range between 18-108 for two subscales: the recent racist event score and the lifetime racist events score. The third score, the appraisal of how stressful each event was for the person, ranges between 17-102.

The Generalized Ethnic Discrimination scale yielded a split-half reliability of .91 for each of the subscales scores: GED Recent, GED Lifetime, and GED Appraisal. Scores on the GED by the Latino sample group (N=387) were: GED Recent mean score, 30.11, and SD= 12.14, GED Lifetime mean score, 36.39, and SD= 14.10, and GED Appraisal mean score, 37.38, and SD= 18.21. There is no

information on the construct validity, limiting the validity information for the scale. For the purpose of this study, the appraisal score was used to determine the individual's experience with discrimination.

Stephenson Multigroup Acculturation Scale (SMAS). The Stephenson Multigroup Acculturation Scale is a 32-item multidimensional scale designed to measure behavioral and attitudinal aspects of acculturation across ethnic groups (Stephenson, 2000). The SMAS measures the degree of immersion in dominant and ethnic societies. The Stephenson Multigroup Acculturation Scale (Stephenson, 2000) is a Likert type rating scale ranging from 1 (*False*) to 4 (*True*) as anchors. To obtain the Ethnic Society Immersion score, the first seventeen item scores are added and divided by seventeen, to yield a mean score paralleling the anchor ratings and labels. To obtain the Dominant Society Immersion, the last fifteen item scores are added and divided by fifteen, resulting in two subscores for the Stephenson Multigroup Acculturation Scale (Stephenson, 2000). In developing the SMAS, Stephenson (2000) indicated the entire scale had a coefficient alpha of .86 for the entire scale and .90 and .97 for the Dominant Society Immersion subscale and the Ethnic Society Immersion subscale respectively, indicating that reliable scores are generated from the SMAS. For the purpose of this study, the Dominant Society Immersion score was used as the measure of acculturation.

Participants recruited for the development of the SMAS were from diverse ethnic groups, generational statuses, ages, socioeconomic statuses, and education levels. The ethnic groups formed five major groups, including the following:

African Americans (n= 35, 8%); Asian Americans (n = 33, 8%); European Americans (n = 125, 29%); Hispanic Americans (n = 85, 19%; countries of origin: Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Mexico, Peru, Puerto Rico); and participants of African descent (n = 158, 36%).

To evaluate the validity of SMAS, the two SMAS subscales was compared to two other acculturation instruments: the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuella et al. 1995), a 50-item multidimensional scale designed to measure cognitions, attitudes and behaviors, and the Bidimensional Acculturation Scale (BAS; Padilla, 1994), a 24 item scale developed to measure language related aspects of acculturation. The Ethnic Society Immersion subscale of the SMAS was significantly correlated in the expected direction with both ARSMA-II and the BAS. The Dominant Society Immersion subscale of the SMAS was also correlated in the expected direction with both instruments. The SMAS yielded coefficient alphas of .94 and .75 for the two scores in the scale.

Skin color scale. This scale consisted of three items. Skin color was rated from 1 (*fair*) to 7 (*Black*), with 4 (*Brown*) as the midpoint. Participants were asked to imagine the fairest person and darkest person they know as anchors of the rating scale. They were requested to rate their own skin color, how others in their community may perceive their skin color, and how White Americans may perceive their skin color.

DermaSpectrometer reading. The DermaSpectrometer instrument quantitatively measures skin pigments, namely hemoglobin and melanin, by using

colored filters to measure in percent the reflectance of various light wavelengths (Shriver & Parra, 2000). Diffey et al. (1984) suggested that the reflectance of narrow-band light in the DermaSpectrometer would yield a reasonable estimate of the melanin content of a persons skin. Shriver and Parra (2000) compared the usefulness of the Dermaspectrometer to the Photovolt Colorwalk instrument (measures skin pigment) and found that both instruments were highly correlated with the melanin content of the skin. Shriver and Parra (2000) suggested that the Dermaspectrometer was a better indicator of skin color since it was specifically designed to “take into account the absorbance spectrum of melanin and hemoglobin” (p. 23). Furthermore, the Dermaspectrometer, compared to the Photovolt Colorwalk, is less confounded by levels of hemoglobin and as a result, better reflects the amount of melanin present in the skin (Shriver & Parra, 2000). For the purpose of this study, the Dermaspectrometer was used to ascertain participants’ melanin index (M), which served as an indicator of the pigment level in participants’ skin.

Before using the instrument, it was calibrated using the specific white and black calibration standards supplied by the manufacturers. Measurements were taken in the inner upper right arm and the inner upper left arm. Three measurements were taken in each site, moving the measurement head a few centimeters between measurements. The Principal Investigator (PI) documented the average measurement for each site for each participant. The measurements for each site were averaged to produce one score for the melanin index.

Procedures

To recruit participants, e-mails were sent to professors teaching in the spring and summer of 2004 at the University of Miami and Miami-Dade Community College. The e-mail explained the study and asked professors their permission to collect data from their classes. Professors agreed to use class time for the study and/or offered students extra credit for participating. The PI addressed the purpose and the description of the study in the classrooms. The PI then stated that those who are not Hispanic and/or are not interested in participating in the study would be able to get extra credit if they read a five page article titled, "Does Race Exist?" and later write a one page summary of the article due the following week. Each class was informed that there was no monetary compensation for participation and that the study had two parts: (a) filling out the surveys and (b) having their skin color measured. Similar information was presented to all participants from both institutions.

Students, who chose to participate, were given a "subject packet." Each "subject packet" included the following:

- A. An Explanation of Study & Informed Consent Form
- B. Demographic Questionnaire
- C. Stephenson Multigroup Acculturation Scale (SMAS)
- D. The Generalized Ethnic Discrimination Scale
- E. Skin Color Scale
- F. DermaSpectrometer Reading Sheet

The Explanation of the Study and Informed Consent and the Demographic

Questionnaire were always the first two forms in the packet. The remaining instruments were randomly ordered in the packets.

There was a clear statement about the voluntary nature of participation. Participants were informed that withdrawing from participation would result in no penalty, including not responding to any question or not having their skin color measured by the DermaSpectrometer. The participants were also informed that it would take approximately 30 minutes to complete the packets and get their skin color readings. The participants completed the packet in one sitting and returned it to the PI to get their skin color reading. To ensure confidentiality, participants were asked to return the packets, one at a time, in the back of the classroom to get their skin color measure. The PI immediately assigned participants' scores on the 'DermaSpectrometer Reading' sheet. The participants' packets were pre-coded to ensure confidentiality. Upon the investigator's receipt of the packets and after the dermaspectrometer reading had been determined, the informed consents were separated from the remainder of the packets. Each set of responses was then tracked by the pre-assigned code.

Participants

The study took place in Miami, Florida using 200 students from the University of Miami and Miami Dade Community College. Field (2000) indicated that at least 15 participants per variable measured should be included in the sample. In addition, power analysis determined a total sample size of 198 (including eight variables) with an alpha of .01 for the present study (Faul & Erdfelder, 1992). Participants had to identify as first, second, or third generation

Hispanic/Latino (since that would assure involvement in two cultures) and had to be 18 years of age or older. Due to the high percentage of Hispanics residing in Miami, Florida, the PI recruited participants enrolled during that academic year in psychology and social science courses at the University of Miami and Miami Dade Community College.

Statistical Analyses

Correlational and regression analyses were conducted depending on the specific research questions posed. The correlational analyses focused on the significant intercorrelations of the various demographic, independent and dependent variables. The regression analyses were used to address more specifically the hypotheses of the study. The .01 level of significance was used as the criterion of rejection for each of the stated hypotheses. The following correlational analyses were performed:

1. A statistically significant positive relationship was expected to exist between participants' self-perceived skin color and their dermaspectrometer reading. As self-perceived scale scores decreased, the dermaspectrometer reading score was expected to decrease.
2. A statistically significant negative relationship was expected to exist between participants' dermaspectrometer reading and their level of acculturation. As participants' dermaspectrometer reading scores decreased, level of acculturation (dominant society index score) was expected to increase.
3. A statistically significant negative relationship was expected to exist between participants' dermaspectrometer reading and measures of their socioeconomic

status, as dermaspectrometer reading scores decreased, socioeconomic status was expected to increase.

4. A statistically significant positive relationship was expected to be found between participants' multiple measures of socioeconomic status and their level of acculturation. As socioeconomic status increased, level of acculturation was expected to increase.

5. A statistically significant positive relationship was expected to be found between participants' dermaspectrometer reading and their recorded experience with discrimination (using the appraisal score from the Generalized Ethnic Discrimination Scale). As dermaspectrometer reading scores increased, the appraisal score of discrimination is expected to increase.

The following regression procedures, as discussed by Field (2000), were conducted on the data set to examine the correlations between predictor variables (multicollinearity), a correlation matrix was determined (Stevens, 1992). The following regression analyses were conducted:

1. It was expected that actual skin color accounted for the majority of the variance regarding acculturation when looking at variables of skin color (Dermaspectrometer reading), self-perceived skin color, nationality, multiple measures of SES, and acculturation.
2. It was also expected that when compared to other variables, such as self-perceived skin color, nationality, and SES, actual skin color accounted for the majority of the variance regarding discrimination (again, using the appraisal score of the Generalized Ethnic Discrimination Scale).

CHAPTER FOUR

Results

Preliminary Analyses

Prior to analysis, all data were screened for accuracy of data entry, missing values and outliers. Coding and data entry procedures were double-checked for errors prior to running the analyses. Approximately 20% of the cases ($n = 40$) in the final sample were checked for errors. No errors were found.

Next, the two samples were checked for missing data. There were 200 participants in total. Five participants identified as Spanish and therefore were removed from the sample as no information is available that definitively indicates that the cultural values and experiences of individuals from the European country of Spain are the same as the experiences of Hispanics from North and South American countries. Therefore, the sample was reduced to 195. Eighty-nine participants completing the surveys were from the University of Miami; the remaining 106 participants were from Miami-Dade Community College. One participant from the University of Miami and one participant from Miami-Dade Community College did not provide any information for either parent regarding education. Fourteen participants from the University of Miami and 18 participants from Miami-Dade Community College did not provide any occupational information for either parent. The total response for education was 193 and for occupation was 163.

Next, the samples were checked for scores that fell outside the possible range of scores. The independent variable Discrimination, using the Generalized

Ethnic Discrimination scale, had ten responses that fell outside of the possible range of scores for the scale. Therefore, the ten responses were removed. The possible range of scores for the Generalized Ethnic Discrimination scale is 17-102. The total response for the GED scale was 185.

A reliability analysis using Cronbach's coefficient alpha was computed for the Generalized Ethnic Discrimination Scores (Landrine & Klonoff, 2003) and the Stephenson Multigroup Acculturation Scores (SMAS; Stephenson, 2000). One hundred and ninety-five participants completed the Stephenson Multigroup Acculturation Scale. The reliability analysis for the Generalized Ethnic Discrimination Scale scores yielded a coefficient alpha of .94. The Stephenson Multigroup Acculturation Scale has an overall score and two subscale scores: Dominant Society Immersion and Ethnic Society Immersion. A reliability analysis was done for the entire scale and for the two subscales. The entire scale scores had a coefficient alpha of .75. Both subscale scores had relatively low reliability estimates. The Dominant Society Immersion subscale scores had a coefficient alpha score of .54; the Ethnic Society Immersion subscale scores had a coefficient alpha score of .67.

Multicollinearity can occur only when independent variables are intercorrelated in a specific sample and not in the population (Urdan, 2001). All variables (skin-perceived skin color scale, Deraspectrometer reading, nationality, multiple measures of SES, experience with discrimination, and gender) were regressed on the acculturation variable to determine multicollinearity. All independent variables had VIF scores ranging between one

and 2, indicating a low degree of multicollinearity.

A “dummy coding” process was used to change nominal and ordinal variables (gender, nationality, education, income, and occupation) to “quasi” interval/ratio variables since all of the variables (except gender) had more than five categories (Affifi & Clark, 1990). The nationality variable had numbers randomly assigned to the various nationalities. The occupational variable was assigned the same numbers used by the Bureau of the Census. Each occupation listed in the Census is assigned a 6-digit code, with the first two digits representing the major occupational group. For the purpose of tabulations, the Standard Occupational Classification committee, a committee that generates the annual occupational employment statistics survey, suggested using the major occupational groupings (the first two digits) rather than analyzing specific occupations (U.S. Bureau of the Census, 1998). For the purpose of this study, the first two digits of the occupational survey were assigned to the occupation variable.

The nationality variable was coded by location. Countries in close proximity comprised a category. Therefore, the nationality variable included the following categories: Caribbean, Central America, and South America. Cuba, Dominican Republic, and Puerto Rico were coded as one; Nicaragua, Panama, and Mexico were coded as two; Colombia, Venezuela, Ecuador, Brazil, Argentina, Peru, and Bolivia were coded as three. The frequencies and percentage of responses for the nationality variable are presented in Table 1 for the University of Miami and Miami-Dade Community College sub-samples.

Table 1

Summary of Frequencies for Demographic Variables Including University of Miami and Miami-Dade Community College Sub-Samples

Variable	<i>Frequency</i>	<i>Percentage</i>
University of Miami (n=89)		
Gender		
Male	30	33.7%
Female	59	66.3%
Nationality		
Cuba/Dominican Republic/Puerto Rico	49	55.1%
Nicaragua/Panama/Mexico	11	12.4%
Colombia/Venezuela/Ecuador/Argentina/Peru/Bolivia	29	32.6%
Education		
Up to 11 th grade	10	11.0%
High School graduate	18	19.8%
1 or more yrs of college	10	11.0%
Associate degree	6	6.6%
Bachelor's degree	21	23.1%
Master's degree	13	14.3%
Professional/Doctoral degree	13	14.3%
Income		
Less than \$49,999	37	40.7%
\$50,000 to \$99,999	31	34.1%
\$100,000 or more	23	25.3%

(table continues)

Variable	<i>Frequency</i>	<i>Percentage</i>
Occupation		
Management Occupations	5	6.5%
Business and Financial Operations Occupations	19	24.7%
Architecture and Engineering Occupations	7	9.1%
Life, Physical, and Social Science Occupations	2	2.6%
Community and Social Services Occupations	3	3.9%
Legal Occupations	2	2.6%
Education, Training, and Library Occupations	4	5.2%
Arts, Design, Entertainment, Sports, and Media Occupations	3	3.9%
Healthcare Practitioners and Technical Occupations	6	7.8%
Protective Service Occupations	1	1.3%
Food Preparation and Serving Related Occupations	1	1.3%
Building and Grounds Cleaning and Maintenance Occupations	2	2.6%
Personal Care and Service Occupations	1	1.3%
Sales and Related Occupations	4	5.2%
Office and Administrative Support Occupations	4	5.2%
Construction and Extraction Occupations	4	5.2%
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	3	3.9%
Production Occupations	1	1.3%
Transportation and Material Moving Occupations	4	5.2%
Military Specific Occupations	1	1.3%
Miami-Dade Community College (n=106)		
Gender		
Male	33	31.1%
Female	73	68.9%
Nationality		
Cuba/Dominican Republic/Puerto Rico	61	57.5%
Nicaragua/Panama/Mexico	15	14.2%
Colombia/Venezuela/Ecuador/Argentina/Peru/Bolivia	30	28.3%
Income		
Less than \$49,999	49	47.1%
\$50,000 to \$99,999	34	32.7%
\$100,000 or more	21	20.2%

(table continues)

Variable	Frequency	Percentage
Education		
Up to 11 th grade	12	11.2%
High school graduate	13	12.1%
1 or more yrs of college	15	14.0%
Associate degree	25	23.4%
Bachelor's degree	18	16.8%
Master's degree	11	10.3%
Professional/Doctoral degree	13	12.1%
Occupation		
Management Occupations	5	5.5%
Business and Financial Operations Occupations	14	15.4%
Computer and Mathematical Occupations	1	1.1%
Architecture and Engineering Occupations	3	3.3%
Life, Physical, and Social Science Occupations	3	3.3%
Community and Social Services Occupations	1	1.1%
Legal Occupations	1	1.1%
Education, Training, and Library Occupations	5	5.5%
Arts, Design, Entertainment, Sports, and Media Occupations	5	5.5%
Healthcare Practitioners and Technical Occupations	10	11.0%
Healthcare Support Occupations	2	2.2%
Protective Service Occupations	2	2.2%
Food Preparation and Serving Related Occupations	1	1.1%
Building and Grounds Cleaning and Maintenance Occupations	4	4.4%
Personal Care and Service Occupations	2	2.2%
Sales and Related Occupations	15	16.5%
Office and Administrative Support Occupations	7	7.7%
Farming, Fishing, and Forestry Occupations	1	1.1%
Construction and Extraction Occupations	3	3.3%
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	1	1.1%
Production Occupations	3	3.3%
Transportation and Material Moving Occupations	2	2.2%

Note. N = 195. Education variable corresponds to participants' parent with highest level of education. Occupational variable is represented by the occupational code for the participants' parent with the highest level of education. Income variable represents *overall* family income.

Analyses were conducted to determine means, standard deviations, and ranges of the various quantitative scale and item scores. The results of these

analyses are summarized in Table 2. Self-perceived skin color is a three-item researcher generated scale. For the purposes of this study, data on one item, participants' perception of their skin color, were analyzed since part of the goal of the study was to determine whether individuals' perceptions of themselves coincided with their dermaspectrometer reading. Skin color was rated from 1=*Fair* to 7=*Black*, 4=*Brown* on a Likert type scale. Participants were asked to imagine the fairest person and darkest person they knew as anchors of the rating scale.

Table 2

Mean Values for Dependent and Independent Variables

Variable	<i>M</i>	<i>SD</i>	<i>Range</i>
GED scale	32.59	16.29	17.00 - 92.00
SMAS scale			
DSI subscale	3.28	0.37	2.27 - 4.00
ESI subscale	3.15	0.34	1.94 - 3.82
Skin Color Scale	2.82	1.01	1.00 - 6.00
Dermaspectrometer Reading	36.06	5.09	27.20 - 61.10

Note. N = 195. The range of scores reflects the range of responses in the study and not the entire possible range of responses on the scales and items. The actual scale score ranges are: Generalized Ethnic Discrimination scale- 17-102; Stephenson Multigroup Acculturation Scale: Dominant Society Immersion subscale- 3.05-3.89; Ethnic Society Immersion subscale- 2.23-3.21.

Primary Analyses

1. To test whether a significant relationship between self-perceived skin color and the dermaspectrometer reading existed at a .01 level of significance, a correlational analysis was performed. One hundred ninety-five participants were included in the correlational analysis. An examination of the Pearson correlational analysis (using a 1-tailed test) revealed that self-perceived skin color and participants' dermaspectrometer reading is significantly and positively related ($r = .63$) at the .01 level of significance. As expected, participants' dermaspectrometer reading and self-perceived skin color ratings were positively related. Results are presented in Table 3.

Table 3

<i>Intercorrelations of Variables</i>							
Variable	1	2	3	4	5	6	7
1. Dermaspectrometer	--						
2. Skin Color Scale	.63**	--					
3. Level of Acculturation	.20**	.05	--				
4. Income	-.09	-.08	-.04	--			
5. Occupation	.04	.11	.04	-.36**	--		
6. Education	-.03	-.10	-.05	.26**	-.45	--	
7. G E D Scale	.15*	.05	.03	.01	-.04	-.07	--

Note. N = 195. Dermaspectrometer refers to Dermaspectrometer Reading. G E D Scale refers to Generalized Ethnic Discrimination Scale. Level of Acculturation refers to Dominant Society Immersion subscale score. * $p < .05$. ** $p < .01$.

2. To test whether a significant negative relationship between dermaspectrometer reading and level of acculturation (dominant society immersion score) existed at a .01 level of significance, a correlational analysis was performed. One hundred and ninety-five participants were included in the correlation. An examination of the Pearson correlation (using a 2-tailed test) revealed that the dermaspectrometer reading and the level of acculturation, as measured by the Dominant Society Immersion score was significantly correlated ($r = .20$) at the .01 level of significance. Contrary to expectations, however, the relationship between participants' dermaspectrometer reading and level of acculturation (Dominant Society Immersion score) was positive rather than negative, as participants' dermaspectrometer reading increases, level of acculturation (dominant society immersion score) increases. Results are presented in Table 3.

3. Three independent correlations (using a 2-tailed test) examined whether a significant relationship existed between participants' dermaspectrometer readings and the three measures of socioeconomic status: income, education, and occupation. The U.S. census coded occupations are based on prestige and income. The lower the number representing an occupation, the more prestige and income related to the occupation.

To test whether a significant negative relationship between participants' dermaspectrometer reading and income existed at a .01 level of significance, a correlational analysis was performed. One hundred and ninety-five participants were included in the correlation. Results revealed that participants'

dermaspectrometer reading and income were not significantly correlated. To test whether a significant negative relationship between participants' dermaspectrometer reading and education existed at a .01 level of significance, another correlational analysis was performed. One hundred and ninety-three participants were included in the correlation. Results revealed that participants' dermaspectrometer reading and education were not significantly correlated. Finally, to test whether a significant positive relationship between participants' dermaspectrometer reading and occupation existed at a .01 level of significance, a correlational analysis was performed. One hundred and sixty-three participants were included in the correlational analysis. Results revealed that participants' dermaspectrometer reading and occupation were not significantly correlated. Results for the correlational analyses are presented in Table 3.

4. Three independent correlations (using a 2-tailed test) examined whether a significant relationship existed between the three measures of socioeconomic status: income, education and occupation and level of acculturation (Dominant Society Immersion score) at a .01 level of significance. To test whether a significant positive relationship between income and level of acculturation existed at a .01 level of significance, a correlational analysis was performed. One hundred and ninety-five participants were included in the correlation. Results revealed that income and level of acculturation (Dominant Society Immersion score) were not significantly correlated. To test whether a significant positive relationship between education and level of acculturation existed at a .01 level of significance, another correlational analysis was performed. One hundred and

ninety-three participants were included. Results revealed that education and level of acculturation (Dominant Society Immersion score) were not significantly correlated. To test whether a significant negative relationship between occupation and level of acculturation existed at a .01 level of significance, a correlational analysis was performed. One hundred and sixty-three participants were included in the correlation. Results revealed that occupation and level of acculturation (Dominant Society Immersion score) were not significantly correlated. Results for the correlational analyses are presented in Table 3.

5. To test whether a significant positive relationship between participants' dermaspectrometer reading and their recorded experience with discrimination (using the appraisal score from the Generalized Ethnic Discrimination Scale) existed at a .01 level of significance, a correlational analysis was performed. Two hundred participants were included in the correlational analysis. An examination of the Pearson correlational analysis (using a 2-tailed test) revealed that participants' dermaspectrometer reading and their recorded experience with discrimination were not significantly correlated ($r = .15$) at the .01 level of significance. However, the correlation was significant at .05. Results are presented in Table 3.

Regression Analyses

To test whether participants' dermaspectrometer reading accounted for more variance in predicting level of acculturation (dominant society immersion score) than other predictor variables: self-perceived skin color, multiple measures of SES (income, education, and occupation), and nationality, a simultaneous regression analysis was performed. An examination of the simultaneous regression analysis revealed that participants' dermaspectrometer reading was the only statistically significant predictor of acculturation. Yet, the predictor variable dermaspectrometer reading only explained a small percentage of the variance (about 2%) related to acculturation. Results are presented in Table 4.

Table 4

<i>Summary of Regression Analyses: Predicting Acculturation</i>			
Variable	<i>B</i>	<i>SE B</i>	β
Dermaspectrometer	1.83	.007	.26**
Skin Color Scale	-3.79	.038	-.10
Education	-1.64	.014	-.11
Income	-1.63	.025	-.06
Occupation	-1.37	.002	-.05
Nationality	9.73	.008	.01

Note. N = 195. Dermaspectrometer refers to Dermaspectrometer Reading. Dependent Variable = Dominant Society Index score. R-squared = .06; adj. R-squared = .02. *p < .05, **p < .01.

To test whether participants' dermaspectrometer reading accounted for

more variance in predicting participants' experience with discrimination (using the appraisal score from the Generalized Ethnic Discrimination Scale) than other predictor variables: self-perceived skin color, multiple measures of SES (income, education, and occupation), and nationality, a simultaneous regression analysis was performed. An examination of the simultaneous regression analysis revealed that none of the predictor variables was statistically significant in explaining participants' experience with discrimination. Results are presented in Table 5.

Table 5

<i>Summary of Regression Analyses: Predicting Discrimination</i>			
Variable	<i>B</i>	<i>SE B</i>	β
Dermaspectrometer	0.541	0.283	.19
Skin Color Scale	4.25	1.570	.00
Education	-6.99	0.562	-.01
Income	1.55	1.010	.13
Occupation	5.58	0.101	.05
Nationality	-6.30	0.327	-.02

Note. N = 195. Dermaspectrometer refers to Dermaspectrometer Reading. Dependent Variable = Generalized Ethnic Discrimination Score. R-squared = .05; adj. R-squared = .01. *p < .05, **p < .01.

Post Hoc Analysis

Gender differences. Post hoc tests looking at gender differences revealed some differences between females and males. The Chi-square test of independence was used to analyze the gender differences for the categorical variables (income and education) used in the investigation. Table 6 looks at the relationship between gender and income brackets. There was no statistically significant relationship between gender and the various income brackets. Table 7 looks at the relationship between gender and the various education levels. There was no statistically significant relationship between gender and level of education except for the highest level of education (Professional/ Doctoral degree), making the Chi-square test of independence significant. The correlations between dermaspectrometer reading and self-perceived skin color were essentially identical for males ($r = .65$) and females ($r = .64$).

Table 6

Income Brackets by Gender

	Less than \$49,999		\$50,000 to \$99,999		\$100,000 or more		Total	
Gender	n	%	n	%	n	%	n	%
Males	22	34.9	22	34.9	19	30.2	63	100
Females	64	48.5	43	32.6	25	18.9	132	100

Note. N = 195. $\chi^2 (2, n = 195) = 4.23$; $p < .01$; Cramer's V coefficient = .15.

Table 7

<i>Education Level by Gender</i>					
Education	Males		Females		Total
	n	%	n	%	n
Up to 11 th grade	4	6.3	18	13.4	22
High school graduate	8	12.5	23	17.2	31
1 or more yrs of college	6	9.4	19	14.2	25
Associate degree	9	14.1	22	16.4	31
Bachelor's degree	15	23.4	24	17.9	39
Master's degree	8	12.5	16	11.9	24
Professional/Doctoral degree	14	21.9	12	9.0	26

Note: χ^2 (6, n=193) = 9.75; $p < .01$; Cramer's V coefficient = .22.

There were several other correlations where gender differences occurred. The relationship between dermaspectrometer reading and level of acculturation (Dominant Society Immersion score) revealed a difference between the genders. There was a statistically significant relationship for males ($r = .46$) but not for females ($r = .06$). Results are presented in Table 8 and Table 9, respectively. Despite the correlations between the Dermaspectrometer reading and the Skin Color Scale, the relationship between the Skin Color Scale and level of acculturation was not statistically significant for either group. The relationship between the dermaspectrometer reading and experience with discrimination also

revealed a difference between the genders. There was a significant correlation for males ($r = .27$) at the .05 level of significance, but the results were not statistically significant for females ($r = -.11$). Results are presented in Table 8 and Table 9.

Table 8

<i>Relationship of Variables for Males (n=64)</i>							
Variable	1	2	3	4	5	6	7
1. Deraspectrometer	--						
2. Skin Color Scale	.65**	--					
3. Level of Acculturation	.46**	.24	--				
4. Income	.09	.13	-.20	--			
5. Occupation	.01	.12	-.01	-.48**	--		
6. Education	.08	-.09	-.04	.36**	-.45**	--	
7. G E D Scale	.27*	.37**	.16	.17	-.10	.19	--

Note. Deraspectrometer refers to Deraspectrometer Reading. Level of Acculturation refers to Dominant Society Immersion subscale score. G E D Scale= Generalized Ethnic Discrimination Scale.

Table 9

<i>Relationship of Variables for Females (n=136)</i>							
Variable	1	2	3	4	5	6	7
1. Deraspectrometer	--						
2. Skin Color Scale	.64**	--					
3. Level of Acculturation	.06	.02	--				
4. Income	-.25**	-.20*	-.02	--			
5. Occupation	.09	.12	.01	-.32**	--		
6. Education	-.16	-.18*	-.07	.20*	-.46**	--	
7. G E D Scale	.11	-.03	-.04	.00	.08	-.21*	--

Note. Deraspectrometer refers to Deraspectrometer Reading . Level of Acculturation refers to Dominant Society Immersion subscale score. G E D Scale= Generalized Ethnic Discrimination Scale. * $p < .05$, ** $p < .01$.

In looking at the relationship between the Skin Color Scale and experience with discrimination, as measured by the GED scale, similar gender differences were found. There was a significant correlation for males ($r = .37$), but there was no significance for females ($r = -.03$). The relationship between the dermaspectrometer reading and income revealed a significant negative relationship for females ($r = -.25$) but not for males ($r = .09$). Results are presented in Table 8 and Table 9. Finally, the relationship between income and self-perceived skin color scale score depicted a significant negative relationship for females ($r = -.20$) at the .05 level of significance, but no significance for males ($r = .13$) was found.

Differences between Cubans and Non-Cubans. Cubans represented thirty-nine percent of the sample after removing five participants from Spain. The Spanish participants can be argued to have a European rather than Hispanic background. Therefore, post hoc tests looking at differences between Cubans and non-Cubans were performed. Minimal differences existed between Cuban and non-Cuban samples. In looking at the relationship between the Skin Color Scale and the Deraspectrometer reading, the results were practically identical. There was a significant relationship for Cubans ($r = .60$) and non-Cubans ($r = .62$) at the .01 level of significance. In looking at the relationship between income and occupation, the results were, again, very similar between Cubans and non-Cubans. There was a significant negative relationship for Cubans ($r = -.38$) and non-Cubans ($r = -.34$) at the .01 level of significance. Results are presented in Table 10.

Despite the commonality between the Cuban and non-Cuban samples, some differences were found. The relationship between level of education and experience with discrimination revealed a difference between the two groups. There was a significant negative correlation for Cubans ($r = -.32$) at the .01 level of significance, but there was no significance for non-Cubans ($r = .06$). Results are presented in Table 10.

Table 10

<i>Intercorrelations for Cubans and Non-Cubans</i>							
Variable	1	2	3	4	5	6	7
	Cubans (n=76)						
1. Deraspectrometer	--						
2. Skin Color Scale	.60**	--					
3. Level of Acculturation	.15	-.05	--				
4. Income	-.15	-.15	-.07	--			
5. Occupation	.02	.14	.05	-.38**	--		
6. Education	-.00	-.08	-.09	.16	-.54**	--	
7. GED scale	.13	.17	-.06	.06	.17	-.32**	--

Note. Deraspectrometer refers to Deraspectrometer Reading. Level of Acculturation refers to Dominant Society Immersion subscale score. G E D Scale= Generalized Discrimination Scale. *p < .05, **p < .01.

	Non-Cubans (n=119)						
1. Deraspectrometer	--						
2. Skin Color Scale	.62**	--					
3. Level of Acculturation	.23*	.12	--				
4. Income	.04	.03	-.06	--			
5. Occupation	.06	.10	-.02	-.34**	--		
6. Education	-.00	-.15	-.02	.42**	-.42**	--	
7. G E D Scale	.21	.06	.06	.06	-.08	.06	--

Note. Deraspectrometer refers to Deraspectrometer Reading. Level of Acculturation refers to Dominant Society Immersion subscale score. G E D Scale= Generalized Ethnic Discrimination Scale. *p < .05, **p < .01.

In looking at the relationship between level of acculturation and dermaspectrometer reading, differences between Cubans and non-Cubans were found. There was a significant correlation for non-Cubans ($r = .23$) at the .05 level of significance, but there was no significance for Cubans ($r = .15$). Overall, some differences were found between Cubans and non-Cubans but the significant differences were not sufficient to continue exploration.

In addition, the following supplemental analysis was used to examine whether participants' nationality, recoded into two categories: Cubans vs. non-Cubans, influenced participants' acculturation (using the Dominant Society Index). Nationality and acculturation was examined simultaneously with the following variables: self-perceived skin color, dermaspectrometer reading, gender, and experience with discrimination. Multiple regression analysis was used and an examination of the results revealed that the regression model was significant at $p = .042$. Participants' dermaspectrometer reading (Beta = .276, $p < .01$) was the only statistically significant predictor of acculturation when accounting for the influence of the other four independent variables. Again, the model, explains a small percentage of the variance (about 2%). Results are presented in Table 11.

Table 11

Summary of Regression Model Regressing DSI on Five Predictor Variables

Variable	<i>b</i>	<i>SE b</i>	β
Dermaspectrometer	.020	.007	.276**
Skin Color Scale	-.034	.033	-.094
Cuban (1) vs. non Cuban (0)	-.033	.073	-.033
GED scale	-.001	.002	-.023
Gender(0= Male; 1= Female)	.076	.057	.097

Note. Dermaspectrometer refers to Dermaspectrometer Reading. Dependent Variable = DSI (Dominant Society Index). Model Summary: $F= 2.36$; $df= 5/188$; $R\text{-squared} = .06$; $\text{adj. } R\text{-squared} = .03$. ** $p < .01$.

Differences between Caribbean, Central Americans and South Americans.

Finally, an analysis was used to examine whether participants' nationality, recoded into three categories: Caribbean, Central America, and South America, influenced participants' acculturation (using the Dominant Society Index) when examined simultaneously with the following variables: self-perceived skin color, dermaspectrometer reading, gender, and experience with discrimination. Multiple regression analysis was used and an examination of the results revealed that the regression model was not statistically significant at $p = .066$. Again, participants' dermaspectrometer reading (Beta = .271, $p < .01$) was a statistically significant predictor of acculturation when accounting for the influence of the other four independent variables. Results are presented in Table 12.

Table 12

Summary of Regression Model Regressing DSI on Predictor Variables

Variable	<i>b</i>	<i>SE b</i>	β
Dermaspectrometer	.019	.007	.271**
Skin Color Scale	-.033	.034	-.092
Nationality (Caribbean)	.161	.178	.158
Nationality (Central America)	.175	.174	.212
Nationality (South America)	.211	.167	.288
GED scale	.000	.002	-.012
Gender(0= Male; 1= Female)	.081	.057	.103

Note. Dermaspectrometer refers to Dermaspectrometer Reading. Dependent Variable = DSI (Dominant Society Index). Model Summary: $F= 1.94$; $df= 7/186$; $R\text{-squared} = .07$; $\text{adj. } R\text{-squared} = .03$. ** $p < .01$.

CHAPTER FIVE

Discussion

The present study is unique in its effort to understand the relationship of skin color to the acculturation process of Hispanics residing in the United States. This chapter reviews and discusses the findings of the present study as they relate to the research questions and integrates the results with findings from prior research.

The first research question examined whether a relationship existed between self-perceived skin color (subjective measure of skin color) and participants' dermaspectrometer reading (objective measure of skin color). The data provide preliminary evidence that participants' self-reported skin color is positively related to their skin color as measured by the DermaSpec. Prior studies focusing on skin color have used subjective measures, which were considered to be a limitation of these studies (Arce, Murgia, and Frisbie, 1987; Relethford, Stern, Gaskill, and Hazuda, 1983; Vasquez, Garcia-Vasquez, and Bauman, 1997). The dermaspectrometer provided support for the validity of self-reports of skin color. The correlations were identical for males and females, both leaving considerable amounts of variance unaccounted for.

The present finding is important because this is the first study to look at the relationship between a subjective measure and an objective measure of skin color. The literature on skin color has suffered because researchers are skeptical of the validity of studies that only use subjective measures. Objective measures of skin color are costly, limiting their use in the skin color literature. The present

findings add some support for the value of subjective measures of skin color. Yet, the present correlations leave a considerable amount of variance unaccounted for which recommends the continued exploration and investigation of the influence of skin color.

The second research question examined whether a significant negative relationship existed between dermaspectrometer reading and level of acculturation (participants' involvement in dominant culture). The significant positive results ($r = .20$) were surprising considering the prior research on skin color and acculturation. However, very little variance is accounted for and sex differences were found which might have influenced the results. For men there was a significant positive correlation between the dermaspectrometer reading and level of acculturation, whereas there was no significant relationship for the women. Codina (1990) found that Mexican participants who chose the Mexican label had darker skin color, as well as more Native features and less English proficiency. The Mexican born participants choosing the Mexican American label had lighter complexions, as well as European features and higher levels of English proficiency. The lighter the participants, the more acculturated they were to American culture. No gender differences were addressed in the study. In addition, Vazquez et al. (1997) looking at a Mexican sample, found that skin color was related to participants' level of acculturation, with the dark-skinned participants having a lower (more Mexican-oriented) level of acculturation than the other participants.

One possible explanation of this finding relates to how males have more of

a tendency to adopt the norms, values and beliefs of the dominant culture (Denton & Massey, 1993), which may possibly be due to their higher level of involvement with the American culture. For example, Hispanic men are expected to be the primary breadwinner and therefore spend more time away from home. Women place a higher priority on the home, which allows for more involvement with their ethnic culture.

The men in the sample indicated a positive relationship between the dermaspectrometer reading and their level of acculturation. It seems possible that the male participants with darker complexions will make more attempts to adopt norms, values, and beliefs of the majority culture since they may have experienced more rejection from the majority culture (more so than lighter skin males and the females in the sample). Hall (1994) suggested that dark-skinned Hispanics might have adopted the values of the majority culture even though they have been rejected by the majority culture, which engenders an internalized conflict. To reduce this conflict, dark-skinned Hispanics will aspire to assimilate by valuing and internalizing all aspects of the majority culture (Hall, 1994). In addition, Denton and Massey (1993) found that African-American males experience more discrimination than any other group, including African-American females. Dark-skinned Hispanic males may be more sensitive to acts of discrimination than light skinned males and females, due to the intensity and frequency of the acts of discrimination. As a result, the males in the sample assimilate more so than the light-skin males and females in order to reduce the internal conflict that comes with the experience of discrimination.

A second explanation may relate to the usefulness of the acculturation measure. The Stephenson Multigroup Acculturation Scale focused on the participants' values, behaviors, and cognitions and how they connect with either the dominant or ethnic culture. It is possible that the male participants in the sample may indicate similar values, behaviors and cognitions of the dominant culture in order to feel connected with dominant culture even if they have not adopted the values, beliefs, and cognitions of the dominant culture. Again, dark-skin males may want to reduce their internalized conflict of not feeling accepted by their host culture by over-identifying with the host culture. The Stephenson Multigroup Acculturation measure does not capture whether or not the person has been "accepted" by the host culture. Instead, it may be capturing participants' report of their values, beliefs, and cognitions rather than their actual experience.

Finally, the current findings may simply reflect the low reliability of the acculturation measure (scores). The Dominant Society Immersion subscale had a coefficient alpha of .54, raising basic questions about the validity of the scale. In addition, no relationship was found between the Dominant Society Immersion subscale and the Skin Color scale for either sex, indicating that further investigation of skin color is needed.

The third research question examined whether a relationship existed between participants' dermaspectrometer reading and measures of socioeconomic status. The relationship between participants' dermaspectrometer reading and income resulted in a significant negative relationship for females but not for males. Telles and Murguia (1990) examined the influence of skin color on

Mexican Americans' income (including both males and females) by investigating whether differences exist among the various phenotypic groups. The results indicated that dark Mexican Americans earned less compared to light phenotype individuals. Arce, Murguia, and Frisbie (1987) also examined whether Mexican Americans' skin color relates to their income. Participants' categorized as light had a mean income of \$12,721, while the dark participants had a mean income of \$10,480. The results of prior studies report a significant relationship between skin color and income. Yet, these studies did not discuss sex differences.

For males there was no significant relationship between their dermaspectrometer reading and income. Males were evenly spread out among the various income brackets. Thirty-five percent of males reported an income of less than \$49,999; 35% of males reported \$50,000 to \$99,999; and 30% reported an income of over \$100,000. Forty-nine percent of females reported an income of less than \$49,999; 33% of females reported \$50,000 to \$99,999; and 19% reported an income over \$100,000. Males seemed to be evenly divided among the income brackets, which may relate to how males have access to different types of employment opportunities. In contrast, women appear to have limited opportunities in making a higher income reflected in the lower percentage of females reporting over \$100,000. It seems that gender along with skin color are the factors influencing female participants' income.

The relationship between participants' dermaspectrometer reading and education was not statistically significant. In contrast, Telles and Murguia (1990) examined the relationship of skin color and education with a Mexican sample.

The results indicated that education varied by phenotype with the light group completing an additional year of school compared to the other two groups. Arce, Murguia, and Frisbie (1987) also examined whether Mexican Americans' physical appearance related to their level of education. Participants categorized as light averaged 9.5 years of education, while the dark participants had completed an average of 7.8 years of schooling. The results of prior studies report a significant relationship between skin color and education. Yet, the present study found no significant relationship between the objective measure of skin color and education for males and females.

One explanation for the lack of significance in the relationship between participants' dermaspectrometer reading and education may relate to the influence of self-perceived skin color rather than actual skin color. The dermaspectrometer reading is not capturing people's perceptions of their skin color, which may be more informative than the dermaspectrometer regarding a person's opportunities, especially if the skin color gradations are minimal. For females there was a significant negative relationship between their self-perceived skin color and their level of education. Although, the relationship is minimal, with a correlation of -0.18 , it seems necessary to explore the relationship between individual's self-perceived skin color and education.

The relationship between participants' dermaspectrometer reading and occupation was not significant. This finding is surprising since prior research indicated a significant relationship between skin color and occupation. Arce, Murguia, and Frisbie (1987) examined the relationship between skin color and

occupational prestige. The occupational prestige score is based on the Duncan (1961) socio-economic index as revised by Featherman and Stevens (1982), which allocates rankings to various occupations using the total labor force. Participants categorized as light had an occupational ranking of 25.3 while dark participants had an occupational prestige score of 20.7. However, the present study yielded no significant relationship between skin color and occupation.

An explanation for the present findings has to do with the limited literature on the relationship between skin color and occupation. Occupation has historically been a challenging variable to measure, partly due to people's resistance to share this information (Entwisle & Astone, 1994). Although, the census list of occupations used for this study was extensive, it did not capture all occupations. For example, housewife was a popular response coded as missing data since the census list did not code it as an occupation. Combining participants' resistance to the question with the inability to code all responses decreased the response rate for the occupational variable. In general, the three variables looking at socioeconomic status yielded weak results. Income showed a significant but modest relationship to the objective measure of skin color for females but not for males. Education had a weak relationship to the subjective measure of skin color for females but not for males.

The fourth research question examined the relationship between participants' socioeconomic status and their level of acculturation. Three separate correlations were run to determine whether participants' acculturation level (determined by Dominant Society Immersion score) related to the three measures

of socioeconomic status: income, education, and occupation. It was expected that a significant positive relationship existed between measures of socioeconomic status: income and education and level of acculturation. It was expected that a negative relationship existed between occupations and level of acculturation.

The correlations between participants' level of acculturation (Dominant Society Immersion score) and the three measures of socioeconomic status were not statistically significant for either males or females. One explanation for the current finding has to do with the challenges in measuring the variables social class and acculturation. Measuring SES within a nontraditional population (i.e. ethnic groups) has added to the complexity of the measurement of SES in general. Immigrants have the tendency to experience economic hardship as they arrive, limiting the validity of social class measures (Tienda and Raijman, 2000). The measures of social class may not have captured the complex experience of immigrants in the U.S.

In addition, the lack of consensus in defining acculturation has generated more ambiguity in understanding Hispanics' experience in the U.S (Montalvo, 1991). Acculturation has historically been a complicated variable to measure (Montalvo, 1991). The present study is no exception. Although, the Stephenson Multigroup Acculturation Scale (SMAS) (Stephenson, 2000) had high reliability and validity scores in the original study, these results were not replicated for participants in the present study. The alpha of .54 raises basic questions about the validity of this scale.

The fifth research question examined the relationship between

participants' dermaspectrometer reading and their recorded experience with discrimination. The Generalized Ethnic Discrimination scale measures participants' perceived experience with discrimination. The data provide preliminary evidence that male participants' dermaspectrometer readings are related to their recorded experience with discrimination. Males showed a significant relationship between the dermaspectrometer reading and their recorded experience with discrimination; this was not the case for females. Similar results have been found for African American males (Denton & Massey, 1993). Furthermore, Eggers and Massey (1991) documented how the limited availability of low-wage service employment increased the rates of unemployment for black males more than for other groups. The authors suggested that black males have more stereotypes associated with them (i.e. anger management issues) than any other groups. It seems possible that the same issue may apply to the Hispanic males in this sample. Hispanic males with darker complexions seem to perceive themselves as having limited opportunities, which may be related to the stereotypes associated with Hispanic males. Therefore, the males with the darker and indigenous features may be associated with Hispanic culture and stereotypes, perhaps resulting in this group's experience with discrimination.

The sixth research question examined whether participants' dermaspectrometer reading accounted for greater variance in predicting level of acculturation than other predictor variables: self-perceived skin color, multiple measures of SES (income, education, and occupation) and nationality. The dermaspectrometer reading explained about two percent of the variance. One

explanation has to do with the low alpha coefficient for the acculturation measure. In addition, Affifi and Clark (1990) reported that measurement errors in the independent variable might lead to an underestimation of the regression coefficient. It also seemed possible that gender differences weakened the results. For several variables, there was significance for one of the gender groups but not the other, reducing the possibility of finding overall significance.

Finally, the sixth research question also examined whether participants' dermaspectrometer reading explained their experience with discrimination over all other predictor variables: self-perceived skin color, multiple measures of SES (income, education, and occupation), and nationality. Results revealed that none of the predictor variables was statistically significant in explaining participants' experience with discrimination. There were, however, gender differences. For males there was a significant relationship between experience with discrimination and both skin color and dermaspectrometer reading.

The post-hoc analysis looking at the differences between Cubans vs. Non-Cubans examined whether the large number of Cuban participants was influencing the results of the study. For the most part, the two groups were highly similar. For example, the relationship between the skin color scale and the dermaspectrometer reading was practically identical for both groups, demonstrating that a Cuban background did not influence the relationship between skin color and the dermaspectrometer reading. Similarly, the relationship between income and education revealed similar results for Cubans and Non-Cubans.

Although there was considerable similarity between Cubans and Non-Cubans, differences did exist. In looking at the relationship between education and experience with discrimination, there was a significant negative relationship for Cubans at the .05 level of significance but not for Non-Cubans. One possible explanation is that Non-Cubans are a minority in Miami, Florida and have a more challenging time transitioning to the culture in Miami. Therefore, regardless of education, Non-Cubans may experience some level of discrimination. Cubans, on the other hand, with a higher level of education will have significantly less experience with discrimination because they are educated and have more opportunities made available due to their Cuban heritage.

In looking at the relationship between acculturation and dermaspectrometer reading, there was a significant positive relationship for Non-Cubans at the .05 level of significance but no significance for Cubans. A possible explanation is that, again, Cubans are a majority in Miami. Therefore, acculturating would be less significant for this group since Cuban heritage is very prevalent in the culture of Miami. Therefore, acculturation for Non-Cubans is more salient since the culture of Miami would be different from their own culture. As a result, Non-Cubans with a higher dermaspectrometer reading would make more effort to acculturate in order to fit in (Hall, 2000).

Finally, participants' nationality was recoded into three categories: Caribbean, Central America, and South America to determine whether nationality influenced participants' acculturation (using the Dominant Society Index). The results of the multiple regression analysis were not statistically significant,

indicating that nationality was not a major factor influencing a person's level of acculturation.

Summary

The present study investigated the relationship of skin color to the acculturation process of Hispanics in the United States. The results of the present study were unconvincing. Many of the research questions resulted in non-significant results. Gender differences seemed to influence the general findings. For many of the research questions males and females differed significantly in their responses, reducing the likelihood of finding overall significance. Furthermore, it seems that the present findings are contrary to prior studies of skin color. The present results indicated that the darker the complexion of males, the more acculturated the participant felt, which is opposite from what other studies have found. It seems possible that individuals may be endorsing the values, norms, and beliefs of the dominant culture as a way of identifying with the dominant culture even if their experience is different. The present findings seem to be more in line with Hall's (1994) suggestion that dark-skinned Hispanics will aspire to assimilate by valuing and internalizing all aspects of the majority culture. As a result, it is possible that darker complexion males may be making more of an attempt to adopt the norms, values, and beliefs than lighter complexion males in order to connect with the dominant culture.

Second, the present study also found a positive correlation between the subjective measure of skin color and the objective measure of skin color, which suggests that participants are identifying their skin color with some accuracy.

Objective measures of skin color are costly and time consuming, limiting their use in research. The present finding found some support for the use of subjective measures, in the investigation of skin color.

Overall, most of the analyses resulted in non-significance. Measurement errors may have influenced the results of the present study, underestimating the relationship between variables. The Stephenson Multigroup Acculturation Scale's Dominant Society Immersion score had a low coefficient alpha, questioning the usefulness of the scale. Differences were observed between Cubans vs. Non-Cubans and the nationality variable was recoded to determine whether or not this was influencing the lack luster results. The post-hoc analysis indicated that the nationality variable was not a factor in the limited significance of the study. Yet, it seems that gender differences may be the most important finding. Prior studies neglected to explore the influence of gender differences. The results of the present study justify the further exploration of gender differences with the skin color literature, as well as a better understanding of the relationship between skin color and experience with discrimination.

Limitations of the Study

There are several limitations that influenced the lack of significance in the present study. First, the acculturation variable (Dominant Society Immersion score) had an alpha coefficient of .54. The low alpha coefficient for the Dominant Society Immersion subscale affects the validity of the scale. As a result, participants' reported level of acculturation is unconvincing. A second, related, issue concerns the inclusion of complex variables. Social class variables have

historically been complicated to measure due to the amount of information that goes unexplored. For example, immigrants arriving in the United States go through hardships in finding employment and adjusting to a new environment. Yet, this information is lost when focusing on specific social class variables, such as level of education, income, and occupation. Unfortunately, the measures do not seem to accurately capture participants' experience, influencing the reported results of the study. As a result, the data related to social class may not be accurately capturing the experience of Hispanics in the United States.

The final issue is related to the sample population. Data were collected in Miami, Florida, which is highly populated by Hispanic immigrants. Hispanics in Miami, especially Cubans, are in the majority regarding political positions and business ownership. As a result, Hispanics in Miami hold power and prestige. Hispanics' opportunities in Miami are an anomaly compared to the rest of the United States. As a result, although the sample was ethnically diverse, it was a unique sample population since Miami is a highly bicultural environment. Not only is Miami a bicultural environment, which culture is the majority culture is debatable. Hispanics are the majority (in terms of both power and population) in Miami. It seems possible that the acculturation results may have been influenced by the unique position Miami holds.

Directions for Future Research

This study was the first to investigate the relationship between the subjective measure of skin color and an objective measure of skin color. The results encourage future research in the area of skin color. There are many

potential directions in which future research might continue.

First, this study should be replicated using a sample of Hispanics from various parts of the United States. Drawing from samples from the Northeast and West Coast may provide a broader and more valid picture of Hispanics' experience in the United States. Furthermore, the present study examined university students; it would seem informative to draw from non-university samples (for example, samples from various work locations) in order to get a richer picture of Hispanics' experience in the United States.

Future studies should use measures that best reflect the Hispanic population they are investigating since crucial information may get lost in the data collection. This seems particularly true because Hispanics are a highly diverse group of people. It may be beneficial to restrict the sample to specific groups, rather than incorporating as many groups of Hispanics as possible and potentially losing valuable information.

Finally, it seems important for future studies to be sensitive to gender differences. The present findings indicated that males and females experiences differed, influencing the results of the present study. Prior studies investigating skin color seemed to neglect the influence of gender differences (Arce, Murgia, and Frisbie, 1987; Relethford, Stern, Gaskill, and Hazuda, 1983; Vasquez, Garcia-Vasquez, and Bauman, 1997). Therefore, it seems that future studies need to investigate gender differences when attempting to understand the influence of skin color.

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APPENDIX A:
QUESTIONNAIRES AND SCALES

Demographic Questionnaire

1. What is your gender?

_____ Male

_____ Female

2. What is your age?

3. Where were you born?

_____ In the United States

_____ Outside the United States (Please print the name of the country)

4. When did you come to live in the United States?

5. What is the highest degree or level completed by you?

_____ High school graduate (high school diploma or equivalent, i.e., GED)

_____ 1 or more years of college, no degree

_____ Associate degree (i.e., AA or AS)

_____ Bachelor's degree (i.e., BA or BS)

_____ Master's degree (i.e., MA or MS)

_____ Professional degree (i.e., MD, DDS, DVM, LLB, JD)

_____ Doctoral degree (i.e., PhD, EDd)

6. What is the highest degree or level completed by your mother?

_____ up to 8th grade

_____ 9th grade

_____ 10th grade

_____ 11th grade

_____ High school graduate (high school diploma or equivalent, i.e., GED)

_____ 1 or more years of college, no degree

_____ Associate degree (i.e., AA or AS)

_____ Bachelor's degree (i.e., BA or BS)

_____ Master's degree (i.e., MA or MS)

_____ Professional degree (i.e., MD, DDS, DVM, LLB, JD)

_____ Doctoral degree (i.e., PhD, EDd)

7. What is the highest degree or level completed by your father?

_____ up to 8th grade

_____ 9th grade

_____ 10th grade

_____ 11th grade

- High school graduate (high school diploma or equivalent, i.e., GED)
- 1 or more years of college, no degree
- Associate degree (i.e., AA or AS)
- Bachelor's degree (i.e., BA or BS)
- Master's degree (i.e., MA or MS)
- Professional degree (i.e., MD, DDS, DVM, LLB, JD)
- Doctoral degree (i.e., PhD, EDD)

8. What is your family's national origin?

9. What is the *overall* income for your household?

- less than \$24,999
- \$25,000 to \$49,999
- \$50,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 to \$199,999
- \$200,000 or more

10. What is your father's occupation?

11. What is your mother's occupation?

Stephenson Multigroup Acculturation Scale (SMAS)
(Stephenson, 1999)

****DIRECTIONS:** Below are a number of statements that evaluate changes that occur when people interact with others of different cultures or ethnic groups. For questions that refer to “COUNTRY OF ORIGIN” or “NATIVE COUNTRY,” please refer to the country from which your family originally came. For questions referring to “NATIVE LANGUAGE,” please refer to the language spoken where your family originally came.

Circle the answer that best matches your response to each statement.

- | | | | | |
|--|-------|--------------|-------------|------|
| 1. I understand English, but I'm not fluent in English. | False | Partly False | Partly True | True |
| 2. I am informed about current affairs in the United States. | False | Partly False | Partly True | True |
| 3. I speak my native language with my friends and acquaintances from my country of origin. | False | Partly False | Partly True | True |
| 4. I have never learned to speak the language of my native country. | False | Partly False | Partly True | True |
| 5. I feel totally comfortable with (Anglo) American people. | False | Partly False | Partly True | True |
| 6. I eat traditional foods from my native culture. | False | Partly False | Partly True | True |
| 7. I have many (Anglo) American acquaintances. | False | Partly False | Partly True | True |
| 8. I feel comfortable speaking my native language. | False | Partly False | Partly True | True |
| 9. I am informed about current affairs in my native culture. | False | Partly False | Partly True | True |
| 10. I know how to read and write in my native language. | False | Partly False | Partly True | True |
| 11. I feel at home in the United States. | False | Partly False | Partly True | True |
| 12. I attend social functions with people from my native country. | False | Partly False | Partly True | True |
| 13. I feel accepted by (Anglo) Americans. | False | Partly False | Partly True | True |
| 14. I speak my native language at home. | False | Partly False | Partly True | True |
| 15. I regularly read magazines of my ethnic groups. | False | Partly False | Partly True | True |
| 16. I know how to speak my native language. | False | Partly False | Partly True | True |
| 17. I know how to prepare (Anglo) American foods. | False | Partly False | Partly True | True |
| 18. I am familiar with the history of my native | False | Partly False | Partly True | True |

country.

- | | | | | |
|---|-------|--------------|-------------|------|
| 19. I regularly read an American newspaper. | False | Partly False | Partly True | True |
| 20. I like to listen to music of my ethnic group. | False | Partly False | Partly True | True |
| 21. I like to speak my native language. | False | Partly False | Partly True | True |
| 22. I feel comfortable speaking English. | False | Partly False | Partly True | True |
| 23. I speak English at home. | False | Partly False | Partly True | True |
| 24. I speak my native language with my spouse or partner. | False | Partly False | Partly True | True |
| 25. When I pray, I use my native language. | False | Partly False | Partly True | True |
| 26. I attend social functions with (Anglo) American people. | False | Partly False | Partly True | True |
| 27. I think in my native language. | False | Partly False | Partly True | True |
| 28. I stay in close contact with family members and relatives in my native country. | False | Partly False | Partly True | True |
| 29. I am familiar with important people in American history. | False | Partly False | Partly True | True |
| 30. I think in English. | False | Partly False | Partly True | True |
| 31. I speak English with my spouse or partner. | False | Partly False | Partly True | True |
| 32. I like to eat American foods. | False | Partly False | Partly True | True |

Generalized Ethnic Discrimination Scale
(Landrine & Klonoff, 2003)

**** DIRECTIONS:** We are interested in your experiences with racism. As you answer the questions below, please think about your **ENTIRE LIFE**, from when you were a child to the present. For each question, please circle the number that best captures the things that have happened to you. Answer each question 3 times.

1. How often have you been treated unfairly by **teachers and professors** because of your race/ethnic group?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6
	Not at all stressful			Extremely Stressful		
How stressful was this for you?	1	2	3	4	5	6

2. How often have you been treated unfairly by your **employers, bosses and supervisors** because of your race/ethnic group?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6
	Not at all stressful			Extremely Stressful		
How stressful was this for you?	1	2	3	4	5	6

3. How often have you been treated unfairly by your **co-workers, fellow students and colleagues** because of your race/ethnic group?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6
	Not at all stressful			Extremely Stressful		
How stressful was this for you?	1	2	3	4	5	6

4. How often have you been treated unfairly by **people in service jobs (by store clerks, waiters, bartenders, bank tellers and others)** because of your race/ethnic group?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
--	-------	-----------------	-----------	-------	------------------	---------------------

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

5. How often have you been treated unfairly by **strangers** because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

6. How often have you been treated unfairly by people in helping jobs (**by doctors, nurses, psychiatrists, case workers, dentists, school counselors, therapists, social workers and others**) because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

7. How often have you been treated unfairly by **neighbors** because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

8. How often have you been treated unfairly by **institutions (schools, universities, law firms, the police, the courts, the Department of Social Services, the Unemployment Office and others)** because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

9. How often have you been treated unfairly by **people that you thought were your friends** because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

10. How often have you been **accused or suspected of doing something wrong (such as stealing, cheating, not doing your share of the work, or breaking the law)** because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

11. How often have people **misunderstood your intentions and motives** because of your race/ethnic group?

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful

Extremely Stressful

How stressful was this for you? 1 2 3 4 5 6

12. How often did you **want to tell someone off for being racist towards you but didn't say anything?**

Never Once in a while Sometimes A lot Most of the time Almost all the time

How often in the past year? 1 2 3 4 5 6

How often in your entire life? 1 2 3 4 5 6

Not at all stressful	Extremely Stressful
How stressful was this for you?	1 2 3 4 5 6

13. How often have you been **really angry about something racist that was done to you?**

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6

Not at all stressful	Extremely Stressful
How stressful was this for you?	1 2 3 4 5 6

14. How often have you been forced to **take drastic steps** (such as **filing a grievance, filing a lawsuit, quitting your job, moving away, and other actions**) to deal with some racist thing that was done to you?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6

Not at all stressful	Extremely Stressful
How stressful was this for you?	1 2 3 4 5 6

15. How often have you **been called a racist name?**

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6

Not at all stressful	Extremely Stressful
How stressful was this for you?	1 2 3 4 5 6

16. How often have you **gotten into an argument or a fight about something racist that was done to you or done to another member of your race/ethnic group?**

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6

Not at all stressful	Extremely Stressful
How stressful was this for you?	1 2 3 4 5 6

17. How often have you been **made fun of, picked on, pushed, shoved, hit, or**

threatened with harm because of your race/ethnic group?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all the time
How often in the past year?	1	2	3	4	5	6
How often in your entire life?	1	2	3	4	5	6
	Not at all stressful			Extremely Stressful		
How stressful was this for you?	1	2	3	4	5	6

18. How *different* would your life be now if you *HAD NOT BEEN* treated in a racist and unfair way

In the Past Year ?	The Same As it is now	A little different	Different in a few ways	Different in a lot of ways	Different in most ways	Totally different
	1	2	3	4	5	6
In your entire life?	The Same As it is now	A little different	Different in a few ways	Different in a lot of ways	Different in most ways	Totally different
	1	2	3	4	5	6

Dermaspectrometer Reading

Melanin Index: Right Inner Arm	_____		

	_____	_____	

Melanin Index: Left Inner Arm	_____		_____

	_____	_____	

Melanin Index: Right Outer Arm	_____		

	_____	_____	

Melanin Index: Left Outer Arm	_____		_____

	_____	_____	

APPENDIX B:
INFORMED CONSENTS FORMS
FOR UNIVERSITY OF MIAMI AND MIAMI-DADE COMMUNITY
COLLEGE

UNIVERSITY OF MIAMI
PARTICIPANT CONSENT FORM

Project Title: Skin Color and its Relationship to Hispanics' Acculturation Process
Principal Investigators: Julissa Senices and Jean-Philippe Laurenceau, Ph.D.

We are asking you to participate in a research project about skin color and its relationship to how Hispanics' acculturate to the United States. The researcher will explain to you in detail the purpose, the procedures, and the potential benefits and possible risks. You may ask the researcher any questions you have about the project. Your participation in the project is voluntary. If you decide to participate in the project, please sign this form. You will be given a copy of the form to keep for your records.

PURPOSE: You are invited to participate in a study about skin color and its relationship to Hispanics' acculturation. The study is designed to investigate whether skin color better explains Hispanics' acculturation process when compared to other variables, such as SES, nationality, and the person's experience with discrimination. In addition, this study will use both a self-perceived measure of skin color and an objective measure of skin color (determined by a spectrometer) to determine which one better predicts the acculturation process. We will ask you specific questions about your nationality, SES, and your experiences with discrimination in the United States.

PROCEDURES: If you agree to participate in this study, you will be asked to complete several questionnaires that will assess different aspects of your identity, as well as your experiences in the United States. Some of the questions will revolve around your national origin, as well as your family's socioeconomic background. Some of the more sensitive questions will be about your experience with discrimination in the United States. Because some of the questions may make you feel uncomfortable, you can skip any question you do not want to answer. This portion will take approximately twenty minutes.

Second, you will be asked to expose your arms so that a "picture" can be taken of your inner and outer arms with a dermaspectrometer. Exposing your arms for the dermaspectrometer reading may provide psychological discomfort. You may choose to stop at any time if you feel some discomfort. If you feel uncomfortable after having exposed your arms for the dermaspectrometer, the primary investigator will be available to you and discuss the process. The portion will take five to ten minutes.

RISKS: Some of the questionnaires may make you feel uncomfortable. For example, discrimination is an emotional issue. You can skip any question that

you do not wish to answer. In addition, exposing your arms for the dermaspectrometer reading may also provide discomfort. You may stop your participation in the study at any time.

BENEFITS: Participation in the study will not be of any direct benefit to you. We can't guarantee that being in this research project will help you. Your participation in this study may help us learn information about Hispanics' experience in the United States.

CONFIDENTIALITY: Your records will not be identified in any publication, as pertaining to you specifically, without your expressed permission. Psychological questionnaires and data will be identified by code number rather than by your name and will be kept in a locked office of the principal investigator. Results will not be identified as pertaining to you in any publication without your expressed permission. When we report the findings of the research to other scientists and doctors, it will be grouped by averages, not by individuals. In rare circumstances, the U.S. Department of Health & Human Services (DHHS) may request copies of your records. If this happens, the DHHS request will be honored. Authorized University of Miami employees or other agents bound by the same provisions of confidentiality may review your records for audit purposes.

ALTERNATIVES: You have an option not to be involved in this project, or skip any questions you do not want to answer. This choice will in no way affect your relationship to the University of Miami or the institution you are affiliated with, if one existed. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice.

COST TO PARTICIPANTS: There will be no cost to you.

If you have any questions, please feel free to ask now. If you have any additional questions later, or any concerns during the study, Dr. Laurenceau (305-284-1566) will be happy to answer them. If you have any questions about your rights as a research subject, contact Ms. Maria Arnold, IRB Director (305-243-2079).

Your signature acknowledges that you have read the information provided, have asked any questions you have about the project, and agree to participate in the study.

Participant

Name: _____

Signature: _____ Today's Date _____

Witness

Name: _____

Signature: _____ Today's Date _____

APPENDIX C:
CODE SHEET

CODE SHEET

1. Gender:

1. Male
2. Female

2. Age:

3. Where were you born? :

1. In the United States
2. Outside the United States

(If the response is 2, code the next question, if not skip to number 5)

4. When did you come to live in the United States?

5. What is the highest degree or level completed by you?

1. High school graduate (high school diploma or equivalent)
2. 1 or more years of college, no degree
3. Associate degree (i.e., AA or AS)
4. Bachelor's degree (i.e., BA or BS)
5. Master's degree (i.e., MA or MS)
6. Professional degree (i.e., MD, DDS, DVM, LLB, JD)
7. Doctoral degree (i.e., PhD, ED d)

6. What is the highest degree or level completed by your mother?

1. up to 8th grade
- 1.9th grade
- 1.10th grade
- 1.11th grade

2. High school graduate (high school diploma or equivalent)
3. 1 or more years of college, no degree
4. Associate degree (i.e., AA or AS)
5. Bachelor's degree (i.e., BA or BS)
6. Master's degree (i.e., MA or MS)
7. Professional degree (i.e., MD, DDS, DVM, LLB, JD)
7. Doctoral degree (i.e., PhD, ED d)

7. What is the highest degree or level completed by your father?

1. up to 8th grade
1. 9th grade
1. 10th grade
1. 11th grade
2. High school graduate (high school diploma or equivalent)
3. 1 or more years of college, no degree
4. Associate degree (i.e., AA or AS)
5. Bachelor's degree (i.e., BA or BS)
6. Master's degree (i.e., MA or MS)
7. Professional degree (i.e., MD, DDS, DVM, LLB, JD)
7. Doctoral degree (i.e., PhD, ED d)

8. What is your family's national origin?

1. Cuba
2. Nicaragua
3. Colombia
2. Dominican Republic
4. Puerto Rico
5. Venezuela
5. Ecuador
5. Panama
5. Brazil
5. Spain

- 5.Peru
- 5.Bolivia
- 5.Mexico
- 5.Argentina
- 5.Chile

9. What is the overall income for your household?

- 1.less than \$24,999
- 1.\$25,000 to \$49,999
- 2.\$50,000 to \$99,999
- 3.\$100,000 to \$149,999
- 3.\$150,000 to \$199,999
- 3.\$200,000 or more

10.What is your father's occupation?

- 11. Management Occupations
- 13. Business and Financial Operations Occupations
- 15. Computer and Mathematical Occupations
- 17. Architecture and Engineering Occupations
- 19. Life, Physical, and Social Science Occupations
- 20. Community and Social Services Occupations
- 23. Legal Occupations
- 25. Education, Training, and Library Occupations
- 27.Arts. Design, Entertainment, Sports, and Media Occupations
- 29. Healthcare Practitioners and Technical Occupations
- 31. Healthcare Support Occupations
- 33. Protective Service Occupations
- 35. Food Preparation and Serving Related Occupations
- 37. Building and Grounds Cleaning and Maintenance Occupations
- 39. Personal Care and Service Occupations
- 41. Sales and Related Occupations

- 43. Office and Administrative Support Occupations
- 45. Farming, Fishing, and Forestry Occupations
- 47. Construction and Extraction Occupations
- 49. Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
- 51. Production Occupations
- 53. Transportation and Material Moving Occupations
- 55. Military Specific Occupations

What is your mothers' occupation?

- 11. Management Occupations
- 13. Business and Financial Operations Occupations
- 15. Computer and Mathematical Occupations
- 17. Architecture and Engineering Occupations
- 19. Life, Physical, and Social Science Occupations
- 21. Community and Social Services Occupations
- 23. Legal Occupations
- 25. Education, Training, and Library Occupations
- 27. Arts, Design, Entertainment, Sports, and Media Occupations
- 29. Healthcare Practitioners and Technical Occupations
- 31. Healthcare Support Occupations
- 33. Protective Service Occupations
- 35. Food Preparation and Serving Related Occupations
- 37. Building and Grounds Cleaning and Maintenance Occupations
- 39. Personal Care and Service Occupations
- 41. Sales and Related Occupations
- 43. Office and Administrative Support Occupations
- 45. Farming, Fishing, and Forestry Occupations
- 47. Construction and Extraction Occupations
- 49. Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
- 51. Production Occupations

- 53. Transportation and Material Moving Occupations
- 55. Military Specific Occupations

12. Generation level

- 1.1st generation=You were born in a Hispanic/Latino country.
- 2.2nd generation=You were born in the USA; either parent born in Hispanic/Latino country.
- 3.3rd generation=You were born in the USA, both parents in the USA and all grandparents born in a Hispanic/Latino country or other country.
- 4.4th generation=You and your parents born in the USA and at least one grandparent born in a Hispanic/Latino country or other country.
- 5. 5th generation=You and your parents born in the USA and all grandparents born in USA.

13. Generalized Ethnic Discrimination Scale

This scale has a range of 17-102.

GSRE Appraisal mean score, 37.38, and SD= 18.21.

14. Skin Color Scale-rating yourself

(score ranges from 1 to 7)

15. Skin Color Scale-community rating of self

(score ranges from 1 to 7)

16. Skin Color Scale- White (non-Hispanic) rating of self

(score ranges from 1 to 7)

17. Deraspectrometer Reading

Summary of results in the groups included in the Shriver and

Parra study:

African Americans: Mean=56.62, S.D.=14.78

East Asians: Mean=31.79, S.D.=2.39

European Americans: Mean=30.50, S.D.=2.82

South Asians: Mean=37.13, S.D.=4.19

18. Ethnic Society Index (SMAS)

This scale has a range of 2.23-3.21

Scale's Means and Standard Deviations by Generation:

1st generation: Mean=3.21, S.D.=0.66

2nd generation: Mean=2.89, S.D.=0.72

3rd generation: Mean=2.23, S.D.=0.87

4th generation: Mean=2.39, S.D.=0.18

19. Dominant Society Index (SMAS)

This scale has a range of 3.05-3.89

Scale's Means and Standard Deviations by Generation:

1st generation: Mean=3.05, S.D.=0.69

2nd generation: Mean=3.60, S.D.=0.41

3rd generation: Mean=3.89, S.D.=0.12

4th generation: Mean=3.87, S.D.=0.32

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CURRICULUM VITAE

EDUCATION

Pennsylvania State University, State College, PA
Counseling Psychology, Ph. D
September 2000- December 2006
Dissertation Topic: Skin Color and its Relationship to Hispanics' Acculturation

Teachers College, Columbia University, NY, NY
Counseling Psychology, Ed. M, 2000

New York University, NY, NY
College of Arts and Science, 1996
Major: Psychology, Minor: Spanish

Universidad De Salamanca, Salamanca, Spain
Coursework in Spanish Culture and Literature, Summer 1994

NYU in Florence, Florence Italy
Coursework in Art History and European Studies, Fall 1995

CLINICAL WORK

The Pennsylvania State University (State College, PA)

Fall 2001-
Summer 2003

Counseling and Psychological Services (State College, PA)
Provided individual psychotherapy, intake interviews, and crisis interviews for a college population with problems that include: personality disorders, adjustment disorders, eating disorders, anxiety disorders, and mood disorders.

University of Miami (Miami, FL)

Fall 2003-
Summer 2004

Counseling Center (Miami, FL)
Participated in individual psychotherapy, group psychotherapy, intake interviews, and crisis interviews for a diverse college population with problems ranging from depression to eating disorders to personality disorders.

Renfrew Center, Miami, FL

Summer 2004-
Spring 2005

Day Treatment/Intensive Outpatient Program
Participated in individual psychotherapy, group psychotherapy, and intake interviews for women struggling with an eating disorder, as well as other problems such as anxiety, depression, chemical dependence, or post-traumatic stress. In addition, worked collaboratively with a treatment team, including, psychologists, psychiatrists, nutritionists, art therapists, and movement therapists.

Spring 2005-
Present

Miami Counseling and Resource Center
Participated in individual, couples, and family counseling with individuals from diverse backgrounds. In addition, worked with adolescents recovering from an eating disorder.