# "But You Don't Look Puerto Rican": The Moderating Effect of Ethnic Identity on the Relation Between Skin Color and Self-Esteem Among Puerto Rican Women

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This exploratory study investigated whether ethnic identity, as assessed by Phinney's (1992) Multigroup Ethnic Identity Measure, functioned as a moderator in the relation between skin color (as measured by masked interviewer evaluation, participant self-report, and skin reflectance data) and self-esteem (as measured by Rosenberg's 1989 Self-Esteem Scale). In a sample of 53 English-speaking Puerto Rican women, a hierarchical multiple regression indicated that among lighter skinned women, those who felt less attached to their culture had less self-esteem than those who were more culturally embedded. Similarly, among darker skinned women, greater attachment to Puerto Rican culture was associated with greater self-esteem than a less defined ethnic identity. Findings are discussed in light of the beneficial effects of ethnic identity.

Keywords: skin color, self-esteem, Puerto Ricans, ethnic identity

Puerto Rican women are a convergence of Indian, African, and Spanish ancestry. As a result, they exhibit a broad range of characteristics, including wide variations in skin color. Previous research among Latinos/Latinas has noted that differences in racial appearance may be correlated with psychological outcome. However, this research is contradictory. That is, although some studies have found that a more "ethnic-looking" appearance, usually assessed by a darker skin color, is associated with worse outcome (Maldonado & Cross, 1977; Malzberg, 1965; Ramos, Jaccard, & Guilamo-Ramos, 2003; Sheilbow, 1973), others have not found this association (Codina & Montalvo, 1994; Sereno, 1947). To better account for such discrepancies, this exploratory study investigated whether ethnic identity functioned as a moderator in the relation between skin color and self-esteem in a sample of mainland Puerto Rican women.

#### Beneficial Effects of Ethnic Identity

Briefly defined, ethnic identity reflects the attitudes or emotional significance people attach to their social group (Phinney, 1990), such as a group with a common nationality or culture (Betancourt & Regeser López, 1993). Much of the support regard-

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ing the beneficial effects of ethnic identity is based on social identity theory, which states that people strive to achieve and maintain a positive group identity (Tajfel, 1981). In addition, a separate body of clinically oriented work, such as Bowlby's attachment theory and Adler's theory of affirmation, has stressed the importance of feeling attached or being embedded in a group (Bowlby, 1969; Dreikurs Ferguson, 1989). Ethnic identity, as a type of group identity, is posited to be related to better outcome because it provides a sense of belonging or cultural embeddedness.

A sense of belonging, or group attachment, may be especially important for traditionally marginalized groups because it serves to unify and rally members in the face of various threats and provides a shared sense of community. However, for Latinos/Latinas, as with other mixed-race groups, maintaining group attachment may be more complicated because members differ along various dimensions (i.e., different skin colors). Yet, an emerging body of research has indicated that although Latinos/Latinas can racially self-identify in a multitude of ways, for a variety of reasons many still find it important to ethnically identify as Latinos/Latinas (Comas-Díaz, 1994; Rodriguez, 1974; Rodriguez, Castro, Garcia, & Torres, 1991).

For mainland Puerto Ricans, who often have to defend their Latino/Latina authenticity because of their birthplace in the continental United States, an additional strategy to affirm their group identity is to simultaneously identify their ethnicity and race as Puerto Rican (Alarcón, Szalacha, Erkut, Fields, & García Coll, 2000; Comas-Díaz, 1994; Landale & Oropesa, 2002; Pew Hispanic Center & Henry Kaiser Family Foundation, 2002). As a result, many Puerto Ricans still tenaciously hold onto their ethnic group affiliation despite being told "but you don't look Puerto Rican" (Comas-Díaz, 1994; Rodriguez et al., 1991; Thomas, 1967). Perhaps this is because they originally derive from a culture whose national ideology is ostensibly based on *mestizaje* (i.e., racial mixing) and that, at least in theory, has a more fluid definition of race than that which is used in the United States (see

Sidanius, Peña, & Sawyer, 2001, for an important review of this theory).

Along with this theoretical support, there is also empirical research noting that ethnic identity is directly related to better outcome. For example, among diverse groups of adolescents, including Latinos/Latinas, strength of ethnic group identification was moderately related to greater psychological resiliency (Wong, Eccles, & Sameroff, 2003) and less depression and anxiety (Shrake & Rhee, 2004; Yasui, LaRue Dorham, & Dishion, 2004) and most often increased self-esteem (Louis & Liem, 2005; Martinez & Dukes, 1997; Phinney, Cantu, & Kurtz, 1997; Phinney & Chavira, 1992; Roberts et al., 1999). More to the point, this association has also been found among adult Latinos/Latinas, including Puerto Ricans (Ethier & Deaux, 1990; Lorenzo-Hernández & Ouellette, 1998; Negy, Shreve, Jensen, & Uddin, 2003).

In addition, ethnic identity may indirectly alter the associations between various behaviors. For example, among different ethnic groups, two studies to date have found that a higher ethnic identity can buffer the relation between discrimination and depression (Mossakowski, 2003) and serve as a protective factor against drug use (Brook, Whiteman, Balka, Win, & Gursen, 1998). Thus, theoretically and empirically, ethnic identity is directly and indirectly associated with a host of better outcomes.

# Association Between Ethnic Identity, Skin Color, and Psychological Outcome

In light of these findings, one of the goals of this study was to assess the direct and indirect associations of ethnic identity, as well as its protective role in the relation between skin color and self-esteem. Although self-esteem is qualitatively different from many of the previously cited outcomes, its ability to predict a variety of socially significant issues and disorders make it a pivotal variable to assess in exploratory skin color research (Swann, Chang-Schneider, & Larsen McClarty, 2007). In addition, the incorporation of a contextual variable, such as ethnic identity, is important to consider because previous studies have narrowly assumed a *de facto* relation between skin color and various outcomes—despite the fact that these associations are contextually and historically indexed by a number of factors, such as place of birth or residency, language, and gender (Codina & Montalvo, 1994; López, 2006, 2007b).

These omissions may, in part, explain the contradictory research on skin color. For example, although a handful of studies and clinical observations have noted that darker skinned Latinos/Latinas have lower self-esteem, and more depressive affect, than their lighter skinned peers (Berle, 1958; Maldonado & Cross, 1977; Malzberg, 1965; Ramos et al., 2003; Sheilbow, 1973), at least one other clinical observation found that dark-skinned Latinos residing in Puerto Rico were less anxious than their lighter skinned peers (Sereno, 1947). More recently, one study with Puerto Rican children found that skin color was not associated with either self-esteem or ethnic identity, further casting doubt on the direct relation between skin color and self-esteem (Alarcón et al., 2000).

Finally, in a better designed large-panel study, a darker phenotype, or racial appearance, was not directly related to poorer psychological functioning among Latinos/Latinas. Rather, it was the interaction between phenotype and place of birth that differ-

entially predicted outcome (Codina & Montalvo, 1994). Specifically, among U.S.-born men, a darker phenotype was associated with a higher incidence of depression, whereas among Mexicanborn women, it was associated with less depression. Therefore, a darker skin color was not automatically associated with worse outcome, but instead its association was indexed by gender and context. With the exception of this study, previous research on skin color has been limited because it has not taken into account other contextual variables.

# Methodological Difficulties of Assessing Skin Color

Prior research on skin color is also compromised because of methodological difficulties associated with measuring and categorizing skin color. For example, the categorization of skin color has often been reduced to simplistic binary categories of light/White versus dark/non-White, or coarse trichotomized categories of light, medium, and dark skin (Codina & Montalvo, 1994; Maldonado & Cross, 1977; Malzberg, 1965), which belies the many ways that Latinos/Latinas understand their own appearance (Gravlee, 2005; Harris, Consorte, Lang, & Byrne, 1993; López, 2007b). In addition, although sociological research has noted differences in how interviewers and participants rate skin color (Rodriguez, 1974; Tumin & Feldman, 1969), in psychology, studies have typically relied only on interviewer ratings of participants' skin color, thus further constraining our assessment of this variable. To address such concerns, an additional goal of this study was to measure skin color using a variety of objective (i.e., reflectance data) and subjective (i.e., participant and masked interviewer ratings) methods to arrive at a more reliable and shared assessment of skin color.

# Goals of the Present Study

In sum, this study had a number of goals. First, it sought to assess the general relations between ethnic identity, skin color, and self-esteem, with the hypothesis that skin color would not be directly associated with self-esteem. Second, it was hypothesized that ethnic identity would function as a moderator and interact with skin color to produce an effect on self-esteem (Baron & Kenny, 1986). Last, an additional methodological goal was to improve on previous studies by assessing skin color using a variety of methods.

### Method

# **Participants**

Fifty-three English-speaking, mainland Puerto Rican women between the ages of 18 and 49 were interviewed. The mean age of the sample was 30.75 years (SD=8.56). All participants resided in the same major northeastern metropolitan city and were typically second generation or above (91%) and had resided an average of 29.89 years in the United States (SD=8.42). However, more than a quarter of the participants (25%) had lived in Puerto Rico at some point in their lives (M=3.54 years, range = 6 months–11 years). An overwhelming majority had also visited Puerto Rico (85%), with an average of 4.3 lifetime visits (range = 1–10 visits or more). More than half of the participants did not report having a partner (59%), but of those who did, more than a third were legally married (36%). The majority of the participants

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had children (61%), with an average of two children per household (range = one to five children).

Approximately 68% of the participants reported having some college education, and an overwhelming majority of the sample were employed (87%), with more than half working full time (68%). Still, a significant portion of the sample was financially compromised, with close to one third (30%) living in subsidized public housing and below the poverty level. Participants also generally came from families with very little education, with approximately half of the women reporting that either their fathers (48%) or mothers (49%) did not have a high school education.

#### Measures

Spectrophotometer. Skin color was assessed via reflectometry using the Color Guide hand-held spectrophotometer (Version 45/0, UMM Electronics, Indianapolis, Indiana). This is a small, portable, battery-operated meter that generated two scores. The first was a measurement of light intensity and the other was a pigment-related score that assessed yellow melanin. Previous research has shown that lightness and melanin are inversely related (Robins, 1974), so that a higher pigment score indicated a darker skin color. To ensure reliability, two spectrophotometer readings were acquired from the medial aspect of the upper left arm of each participant, and a composite score was computed for each index (Weiner & Lourie, 1969). Means, standard deviations, alphas, and intercorrelations of indices are given in Table 1.

Skin color ratings. Skin color was also measured using two identically worded (masked) interviewer- and participant-rated questions. On a 9-point scale, ranging from 1 (very light) to 9 (very dark), the principal investigator rated the skin color of the participants before administering the spectrophotometer. Scores were reverse coded and summed to create a composite score so that, similar to the lightness score obtained on the spectrophotometer, a higher score was indicative of lighter skin. Means, standard deviations, alphas, and interrcorrelations of indices are also given in Table 1.

Rosenberg Self-Esteem Scale. Self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1969). This is a well-known 10-item questionnaire designed to assess global selfesteem (e.g., "In general, I am inclined to feel that my life is a failure"). In this scale, items are evenly divided into positive and negative indicators of self-esteem and intermixed to avoid response bias. Responses were rated on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) and coded so that a higher score was indicative of greater self-esteem. This scale has previously been used with adult English-speaking Puerto Ricans (Lorenzo-Hernández & Ouellette, 1998). One item, "I wish I could have more respect for myself," was dropped because of its low item—total correlation. However, the scale still yielded a good and comparable alpha. See Table 1 for other descriptive information and intercorrelations with other measures.

Multigroup ethnic identity. Feelings of group belonging were measured by Phinney's (1992) Multigroup Ethnic Identity Measure. The Multigroup Ethnic Identity Measure is a general ethnic identity scale (e.g., "I have a strong sense of belonging to my ethnic group"), with items anchored on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), with a higher score indicating a higher level of ethnic identity. Following a previous factor analysis that identified a two-factor structure that encompassed feelings of belonging and exploration (Roberts et al., 1999), eight items referring to affirmation and commitment were used to assess group belonging (see also Martinez & Dukes, 1997, for a similar abbreviation). For the abbreviated scale, a composite score was obtained by reversing negative items and summing across all items to obtain a mean score. This yielded an alpha that was higher than one previously reported for adult Puerto Ricans (Lorenzo-Hernández & Ouellette, 1998). See Table 1 for other descriptive information and its correlation with other measures.

Bidimensional Acculturation Rating Scale. To assess linguistic proficiency, a subscale of Marín and Gamba's (1996) Bidimensional Acculturation Rating Scale for Hispanics was used. This is a 12-item scale that assesses proficiency in either English or Spanish (e.g., "How well do you speak English/Spanish"). Responses were on a 4-point Likert scale, ranging from 1 (almost never/very poorly) to 4 (almost always/very well). Items were summed to create separate mean composite scores of linguistic fluency in either English or Spanish, with a higher score indicating greater self-reported fluency. Marín and Gamba (1996) reported

Table 1
Descriptive Statistics and Intercorrelations Among Main Study Variables

Measures	М	SD	Range	α	1	2	3	4	5	6	7	8	9
1. Self-esteem	3.42	0.50	1.67-4.00	.86	_	.31*	.09	.38**	04	.03	12	.06	03
2. Ethnic identity	3.45	0.52	1.88-4.00	.84		_	.23	.41**	.36**	26	.17	.26	.32*
3. English proficiency	3.86 <sup>a</sup>	0.25	3.00-4.00	.82			_	.18	.06	.08	.05	.12	.06
4. Spanish proficiency	3.03 <sup>a</sup>	0.62	1.00-4.00	.89				_	.10	07	01	03	.04
5. Lightness	59.32	3.72	50.44-65.59	_						$76^{***}$	.73***	.82***	.95***
6. Yellow pigment	20.50	2.28	15.67-24.94	_							$70^{***}$	73***	$87^{***}$
7. Participant rating <sup>b</sup>	5.89	1.71	3.00-9.00	_							_	.80***	.84***
8. Interviewer rating <sup>b</sup>	5.96	2.23	1.00-9.00	_								_	.92***
9. All color ratings	12.71	2.29	7.63-16.64	_									_

<sup>&</sup>lt;sup>a</sup> Participants had greater English than Spanish proficiency, paired t(52) = 9.72, p < .001. <sup>b</sup>N = 52.

<sup>\*</sup> p < .05. \*\*p < .01. \*\*\*p < .001.

that this scale is general enough to be used with various Latinos/ Latinas, although to date it has not been used with Puerto Ricans. See Table 1 for obtained descriptive information and intercorrelations with other measures.

Demographic measures. A number of fixed-format questions were used to obtain demographic and socioeconomic information on participants and their parents. This included information regarding generational status, as indexed by place of birth, years of residency in the mainland and Puerto Rico, visits to Puerto Rico, marital status, number of children, living arrangements, socioeconomic status as indicated by welfare status, and educational attainment.

#### **Procedures**

Data for this study were collected following approval by the Institutional Review Board at Kent State University. Given the exploratory nature of this study, eligibility was broad and included self-identified Puerto Rican women between the ages of 18 and 50, with no history of skin disorders or a recent suntan in the past 6 months. Participants were recruited from a major northeastern metropolitan city historically known to have a large number of Puerto Ricans. Within this city, predetermined areas with high concentrations of Puerto Ricans were selected on the basis of U.S. Census Blocks.

Recruitment was done through a variety of methods, including word of mouth, although the primary method of contact was through snowball sampling. With this technique, various gatekeepers of the community, ranging from local neighborhood contacts to professional members of the community, were first contacted and asked to refer eligible participants, and then recruited participants were asked to nominate others for the study. Only 1 participant per household was selected. Past research has shown snowballing to be very successful in recruiting traditionally underaccessed populations (Eland-Goossensen, Van De Goor, Vollemans, Hendriks, & Garretsen, 1997), such as ethnic minority participants (López & Contreras, 2005), and overall it yielded a very high compliance rate (more than 90%).

Once participants were recruited, informed consents were obtained and interviews were conducted. At the start of the study, the investigator filled out the interviewer ratings before administering a packet containing the questionnaires. Two sets of packets, identical except for the ordering of the questionnaires included, were created so that participants never answered the questionnaires in the same order as participants before or after them. Once all measures were completed, the spectrophotometer was used to collect reflectance measurements. In accordance with standard procedures, the medial surface of a participant's upper left arm was cleaned with an alcohol swab before any readings were taken (Weiner & Lourie, 1969). All readings were taken by the interviewer to minimize interobserver error. Interviews, which typically took less than an hour to complete, were usually conducted in the participants' home depending on their requests.

#### Results

Descriptive Statistics and Bivariate Correlations Among Study Measures

Descriptive statistics and intercorrelations among the main study measures appear in Table 1. There were no significant

associations between years of residency and generational status with the main study measures (data not shown). However, participants who were older, had visited Puerto Rico, had higher educational attainment, and did not receive welfare had higher self-esteem ( $rs=.28-.39,\ ps<.05-.01$ ). There were no other associations between these demographic variables and the main study variables (data not shown). With regards to other demographic variables, participants reported greater fluency in English than Spanish, although overall they reported high levels of Spanish fluency. There was no association between Spanish and English proficiency. Greater fluency in Spanish, but not in English, was associated with higher self-esteem and ethnic identity (see Table 1).

In turn, higher ethnic identity was associated with greater self-esteem. Higher ethnic identity was also correlated with a lighter skin color, as measured by the lightness spectrophotometer index, although this association was not replicated with any of the other skin color measures (see Table 1). In addition, a higher ethnic identity was associated with a greater probability of ever having visited Puerto Rico (r = .29, p < .05). However, visits to Puerto Rico were correlated with welfare status (r = .46, p < .001), so that when welfare was considered, the association between ethnic identity and visits to Puerto Rico was reduced (r = .27, p = .051).

Turning to the validity of the skin color ratings, the results indicated that the spectrophotometer readings were highly correlated with one another, with lightness inversely related to yellow pigment. The spectrophotometer scores were also highly correlated with participant and interviewer ratings of skin color, and these ratings were, in turn, associated with one another. Thus, there was high agreement between all the skin color measures, with the absolute values of the correlations ranging from .70 to .82 (ps < .001). As a result, a composite index of the four skin color measures was created. This was achieved by first reflecting the yellow pigment score, so that similar to the other measures, a higher score indicated a lighter skin color. Next, ratings were converted into z scores and summed to compute an overall mean for the collapsed measures.

# Regression Analyses

Overview of main analyses. Because Spanish proficiency and visits to Puerto Rico were associated with the independent (i.e., ethnic identity) and dependent (i.e., self-esteem) variables, they were selected as control variables. Furthermore, on the basis of theoretical considerations, age was also selected as a control variable. This resulted in a hierarchical multiple regression in which Step 1 included the three control variables, Step 2 included the composite index of skin color, and Step 3 was the main effect of ethnic identity. This was followed by Step 4, which was the interaction between the standardized cross-products of ethnic identity and the collapsed skin color rating.

Regression for self-esteem. Table 2 is a summary of the final order statistics. The table shows the unstandardized and standardized betas, along with the standard error for each variable entered, followed by changes for each (whenever appropriate) for the final equation. In Step 1, only two of the three control variables, Spanish linguistic proficiency and visits to Puerto Rico, accounted for a significant proportion of the variance, indicating that those participants with greater cultural fluency and contact had higher self-esteem. However, the addition of Steps 2 and 3 did not further

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Table 2 Summary of Hierarchical Multiple Regression Predicting Self-Esteem

		Ethnic Identity × Skin color			
Variables	$\Delta R^2$	B (SE)	(β)		
Step 1: Control variables	.30***				
Åge		0.01 (.01)	0.16		
Spanish proficiency		$0.25 (.10)^*$	0.31		
Ever visited Puerto Rico		0.46 (.17)***	0.33		
Step 2: Collapsed color rating	.00	-0.02(.06)	-0.03		
Step 3: Ethnic identity	.00	0.08 (.07)	0.15		
Step 4: Interaction term	.12**				
Ethnic Identity × Skin Color		0.16 (.05)**			

*Note.* N = 53.  $R^2 = .42$ , adjusted  $R^2 = .35$ . Only final order statistics

p < .01. \*\*\*p < .001.

improve the model. In the final step, once all the variables were accounted for, there was a significant interaction between ethnic identity and skin color that explained 12% of the additional variance in self-esteem ( $\Delta R^2 = .12$ ), F(1, 46) = 9.35, p < .01. Overall, this culturally constructed model accounted for more than a third of the variance in self-esteem ( $R^2 = .42$ , adjusted  $R^2 = .35$ ).

Decomposition of interaction. To interpret the significant interaction between ethnic identity and skin color, a separate regression line for both high and low values of the standardized predictors, as indexed by the median split, were plotted. Figure 1 depicts the interaction between ethnic identity and skin color, once all the control variables were entered as covariates. As indicated, women with the lowest levels of ethnic identity fared worse. Conversely, lighter skinned women, with more defined ethnic identities, had the highest levels of self-esteem of the entire sample, followed by darker skinned women with higher levels of ethnic identity. Within each color group, women with higher levels of ethnic identity had higher self-esteem than those with lower levels of ethnic identity, although differences were greatest for lighter skinned women.

# Discussion

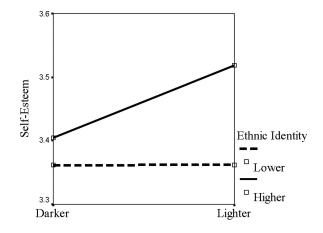
This study had three main goals. First, it first sought to assess the general relations between ethnic identity, skin color, and selfesteem in a sample of mainland Puerto Rican women. Second, it assessed whether ethnic identity moderated the relation between self-esteem and skin color. Third, it tried to improve on previous studies by assessing skin color using a variety of methods.

With regards to the first goal, this study's findings are in line with previous research showing that ethnic identity, along with other markers of ethnic group belonging, such as Spanish fluency and visits to Puerto Rico, are directly related to self-esteem (Ethier & Deaux, 1990; Lorenzo-Hernández & Ouellette, 1998). As such, these findings highlight the importance of continued Spanish fluency among highly acculturated (English-dominant) women. In addition, the results show how continued visits to Puerto Rico are important experiences for the self-esteem of these mainland women. Unfortunately, these findings also show that economic pressures, such as living in poverty, sometimes impeded participants' ability to partake in these cultural experiences. This is particularly distressing for this sample, and for mainland Puerto Ricans in general, given their already depressed economic condition (Baker, 2002).

Still, it is important to note that at least in this study, skin color was not associated with welfare status, nor was it directly related to self-esteem. Instead, as hypothesized, ethnic identity moderated the relation between self-esteem and skin color, so that contrary to previous assumptions in the literature, a darker skin color was not automatically related to worse functioning, nor was a lighter skin necessarily associated with better outcome (e.g., Hall, 1994, 1997). Rather, lighter skinned women, with higher levels of ethnic identity, had the highest self-esteem of the entire sample. Similarly, although to a lesser degree, among darker skinned women, greater attachment to Puerto Rican culture was associated with greater self-esteem. Taken together, these results provide further evidence of the direct and indirect benefits of group belonging.

Overall, however, lighter and darker skinned women had very high levels of self-esteem. In fact, the average levels of self-esteem obtained for this study (M = 3.42, SD = 0.50) were very similar to other scores reported with Latinos/Latinas (e.g., Moradi & Risco, 2006, M = 3.10, SD = 0.41). Thus, the differences between lighter and darker skinned women reflect perhaps more differences in degree than robust differences between groups.

Yet, although the differences were not robust, they may allude to the different functions of ethnic identity in these women. For example, among lighter skinned women having a higher ethnic identity may be especially beneficial because this group is not routinely ascribed an ethnic or minority affiliation. Therefore, they may have to routinely assert their ethnic status more than their darker skinned peers because they are more likely to be misidentified as non-Hispanic White (López, 2007a). This is further suggested by the finding that a lighter skin color, as assessed by one of the indices of the spectrophotometer, was associated with a more defined ethnic identity. Thus, for lighter skinned women, greater Spanish fluency and cultural contacts are important because these variables help affirm their ethnic membership. However, for darker skinned Latinas, because they are more readily identified as minorities in the United States, it may be that additional issues surrounding the interplay of ethnic and racial identity



Collapsed Skin Color Ratings

Figure 1. The interaction between ethnic identity and skin color.

need to be explored when assessing group membership and attachment. Unfortunately, this study did not assess racial identity per se, although this would be an important construct to study in future phenotype studies.

The final goal of this research was to improve on previous studies by assessing skin color using a variety of methods. To this end, this study used subjective (i.e., interviewer and participant ratings) as well objective (i.e., reflectometry) measures of skin color and achieved a high degree of agreement between all three measures. The methods used in this study, therefore, represent an important first step in the measurement of skin color. With the exception of one study (Harrison & Büttner, 1999), no other study has simultaneously included subjective and objective ratings of skin color.

#### Limitations of the Study

Despite finding support for its main hypothesis, and its success in achieving its aforementioned goals, this study had a number of limitations. First, the study's small sample size, obtained through the use of snowballing, affected its representativeness and generalizability. For example, this sample was substantially more educated than most mainland Puerto Ricans. Yet, despite its limited power and the restriction of range in many of the study variables (i.e., self-esteem, ethnic identity, and linguistic fluency), a large percentage of the variance in self-esteem was still able to be accounted for (Wilkerson & Olson, 1997). In addition, it is notable that a moderator effect was even found given the general difficulty of detecting these effects (Jaccard & Wan, 1995). Thus, even with a restricted size, theoretically and empirically based significant associations were able to be statistically supported.

Another limitation is that despite using multiple methods to assess skin color, skin color was the only aspect of racial appearance that was used. This is unfortunate because phenotype encompasses a variety of physical characteristics that were not described in this study. Furthermore, although the measurement of skin color was reliably obtained, the social significance attached to skin color was not directly assessed.

## Implications for Counseling

Although the exact relations between skin color and other variables still requires further investigation, there are some implications for counseling that can be derived from this research. Namely, given the beneficial effects of ethnic identity, therapists could encourage the use of positive ethnic and color self-affirmations when working with clients of color (Sandoval Ruiz, 1990). In addition, given the saliency of skin color in the lives of Puerto Ricans, clients could be encouraged to read about and process the historical legacies associated with skin color while being made aware of the contextual nature of skin color. In particular, the discussions surrounding the contextual nature of skin color would be especially salient for women as they are more often judged on their appearance than men (Calvert, 1988). Such therapeutic encounters, although difficult, could have the beneficial effect of bolstering ethnic identity.

# Future Directions

As an exploratory study, this research helped to identify some of the contextual variables that should be assessed when trying to discern the role of skin color in self-esteem. In the future, studies should assess other moderating and mediating variables in skin color and ethnic identity research, with the awareness that cultures are not static or homogeneous and that the meanings assigned to these variables are contextually based. Toward this end, we need more nuanced and contextually appropriate measures of cultural embeddedness to understand the life experiences of postcolonial and transnational people (Duany, 2002; Rosaldo, 1989). To date, only a few studies have begun to address the complexities involved in measuring dual or blended identities (e.g., Zea, Asner-Self, Birman & Buki, 2003), although as of yet, there are no known studies that have looked at the impact of these identities on skin color awareness.

In sum, future skin color studies should not only assess ethnic and racial identity, but also try to disentangle the associations between these variables and see how these related, but distinct, constructs influence psychological outcome. To do so, future studies should make greater use of mixed methods and longitudinal research so that participants can inform us about how they come to understand these variables and the social significance attached to them.

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