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UNDERSTANDING THE ASSOCIATION BETWEEN PHENOTYPE AND ETHNIC IDENTITY

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Does it matter how you look? Is there a connection between your physical appearance and your feelings toward your ethnic group? Or can your phenotype, defined as your skin color and racial features, affect how members of your ethnic group feel toward you? In this chapter we review the literature on the complex relations between phenotype and ethnic identity and discuss how the associations between these two variables are not always direct, linear, or stable. We begin by defining ethnic identity and phenotype and then discuss how the ways in which these variables have been conceptualized and measured have necessitated more complicated assessments, designs, and analyses. We then present the results of our own work on phenotype and ethnic identity to illustrate how results can differ depending on the group studied and the methods and assessments used. We conclude with a reflection of the challenges faced in conducting such research and suggest future directions for those who may be interested in pursuing research in this area.

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CONCEPTUALIZATIONS AND MEASUREMENT OF ETHNIC IDENTITY

Ethnic identity can broadly be defined as the degree to which individuals feel that they belong to a group that shares a common nationality or culture (Betancourt & López, 1993; Smith & Silva, 2011). Yet, although self-identification as a group member would appear to be a crucial component of ethnic identity, self-identification per se has not typically been considered a sufficient indicator of identity because the saliency, or centrality, among other dimensions of identity, can still vary even among self-identified group members (Sellers, Chavous, & Cooke, 1998; Umaña-Taylor, Diversi, & Fine, 2002). Thus, the study of ethnic identity is not simply about the identification with a specific group, but rather concerns the deeper affiliative bonds that individuals feel toward their group. As such, ethnic identity research, which is typically grounded in either social identity or ego identity theory, has emphasized and explored the emotional significance that individuals hold toward their own ethnic group (Phinney & Ong, 2007; Tajfel & Turner, 1986), with particular focus on experiences or components that detail cultural exploration, resolution/commitment, and affirmation (Umaña-Taylor et al., 2002).

Related to this, a growing body of research has also highlighted the social affiliative aspects of language use and has argued that rather than being a behavioral indicator of acculturation, language use can simultaneously shape and reflect various social identities, including ethnic identity (Jaspal & Coyle, 2009; Khatib & Ghamari, 2011). Hence, using the language of one's ethnic group can create and strengthen group boundaries and affiliation. This is when one's group identity is sometimes perceived to be conditional on language fluency or under conditions in which groups feel marginalized or threatened (Jaspal, 2009). Language use, fluency, and self-perceived competency can, therefore, be intimately tied to a person's subjective sense of group belonging and should consequently be assessed when studying ethnic identity (Acevedo, 2000; López, Dent, Ecosto, & Prado-Steiman, 2011; Niño-Murcia & Rothman, 2008). Thus, in our own work, we have specifically looked at the role that language fluency played in the association between ethnic identity and physical appearance.

Apart from such definitional issues, studies have also differed on the ways to assess ethnic identity. For example, some contend that ethnic identity can be measured by an overall score on a continuous scale if the focus of a study is on the assessment of how a specific dimension within ethnic identity is related to an outcome of interest (Cokley, 2007). However, others believe that ethnic identity should be measured by the separate mean tabulation of different subscores, or specific questions, that assess various statuses (Phinney,

1989; Umaña-Taylor, Yazedjian, & Bámaca-Gómez, 2004). Additionally, researchers have disagreed on whether measures of identity are best assessed by group-specific or global measures. That is, some studies have used measures that assess endorsement of specific cultural values or experiences of particular ethnic groups (e.g., Cortés, Rogler, & Malgady, 1994; Sibley & Houkamau, 2013), whereas other studies have used more global measures that have assessed identity development across various ethnic groups (e.g., Phinney, 1992; Umaña-Taylor et al., 2004). However, despite these differences in conceptualizations and measurement, many of the crucial components of ethnic identity, such as group commitment and affirmation, have, in some way or another, been assessed in relation to phenotype.

MEASUREMENT AND CATEGORIZATION OF PHENOTYPE

Briefly defined, *phenotype* refers to a set of physical characteristics that are typically found in high prevalence among groups that share a historically common gene pool (Brunsma & Rockquemore, 2001; Codina, 1990; López, Gonzalez, & Ho, 2012). These characteristics typically refer to features such as hair texture and color, eye color and shape, and the size of the nose and mouth (Blair, Judd, & Fallman, 2004; Montalvo, 1991; Robinson, 2011), although less frequently body size and frame may also be used to judge group racial/ethnic appearance (López & Walker, n.d.-b).

Of all of these characteristics, skin color is the most studied variable, although there is ongoing debate over whether people use primarily skin color or physical features when making racial categorizations (Hagiwara, Kashy, & Cesario, 2012). In all likelihood, people use both color and features when categorizing others, with the allowance that these categorizations may differ depending on the time spent making these assessments, as well as on the skin color of the participant being evaluated (Stepanova & Strube, 2012). In addition to categorization, the measurement of phenotype itself has had a long and problematic history (Jablonski, 2012). For example, early forays into the assessment of skin color involved comparing a participant's skin to various objects, such as glass-colored tiles, wheels, or swatches, which not only figuratively reduced participants to objects, but also yielded highly unreliable and unstable results. Only later, when light reflectance meters, or spectrophotometers, were devised could more precise and reliable quantification of light intensity and skin color pigment be obtained; although, as we later explain in our work, participants can still experience this type of measurement as intrusive and objectifying. More to the point, although the reliable assessment of skin color is helpful, more is still needed to help us understand the social significance of skin color and race.

Similarly, early attempts to quantify race by measuring various physical features were also problematic and resulted in measurements, such as a series of single scores or combined indices, which were inconsistent and had very little validity. For example, whereas some studies measured specific facial features such as noses, lips, and jaws according to their thickness or protrusion, others used more complex ratios that bore little association to the lived experience of race or of racial differences (Jackson, 2010). These ratios, such as the cephalic index, which was the ratio of the length and breadth of the skull, and the facial angle, which was determined by a horizontal line drawn through the jaw followed into the ear (e.g., Guthrie, 2003; Stratton, 1934), only served to reify the pseudo-biological construction of race (Gould, 1996; Guthrie, 2003; Jablonski, 2012; Smedley & Smedley, 2005). Furthermore, by attempting to illustrate the gradation of races, researchers produced scientifically questionable assessments that were ultimately objectifying and degrading.

Researchers have also relied on interviewer evaluations of participant phenotype, although these have been problematic because the assessments have typically used simplistic binary categories of light/White versus dark/non-White, or light, medium, and dark skin (Codina & Montalvo, 1994; Maldonado & Cross, 1977), which may not have accurately reflected how minorities describe their own skin color. In particular, Latinos, depending on the context or motive, may use either North or Latin American racial categories to describe themselves or others (López, 2008a), and these terms are not always interchangeable. For example, although the term *trigueño* can be used to indicate a person of a darker complexion, it cannot easily be subsumed under the North American category of Black because *trigueño* can strategically be used to distance a person from the Black Latino community ("*Yo no soy negra, soy trigueña*"/"*I'm not Black, I'm trigueña*").

Additionally, how does one judge whether someone has a "medium" phenotype? Should it be a combination of skin color and physical features, or should these aspects be evaluated separately? More specifically, what reference group should evaluators use when rating others—especially if it is someone who is different from his or her own cultural and reference group? That is, should skin color be assessed according to ranges found within a particular ethnic or racial group (i.e., emic perspective), or should individuals be categorized independent of reference group norms (i.e., etic perspective)? These questions are particularly pertinent when we consider that the assessment of phenotype, and racial classifications, varies not only across interviewers and participants, but also across time and context (Brunsma & Rockquemore, 2001; Rodriguez, 1974, 2000). Additionally, perceptions of reflected appraisals, or how participants believe others view them, can further affect how participants may classify or view themselves (Khanna, 2004). In short, the measurement and categorization of phenotype has been plagued

with a number of methodological problems, which have limited our understanding of the role of phenotype in the lives of ethnic and racial minorities.

THE RELATION BETWEEN PHENOTYPE AND ETHNIC IDENTITY

Despite these issues in measurement, the body of research on the effect of within-group differences on objective and subjective life indices has been growing (Hersch, 2011). Briefly, *objective life indices* refer to such quantifiable variables as years of employment or education, whereas *subjective life experiences* refer to interpersonal experiences, such as ethnic identity.

With regard to objective life indices, a growing body of research on within-group differences has indicated that darker skinned individuals typically fare worse than their lighter skinned peers. Specifically, darker skinned individuals generally earn less money, have less education, and are more likely to be employed in jobs with lower occupation prestige and to live in more segregated communities than their lighter skinned peers (Frank, Akresh, & Lu, 2010; Hersch, 2011; Morales, 2008). Darker skin color is, therefore, associated with less access to resources and consequently, according to sociological theory, with fewer chances to improve one's future opportunities. However, it is important to note that these associations have varied by the specific ethnic group studied (Espino & Franz, 2002) and by the way skin color has been categorized (see Flores & Telles, 2012, for an extensive discussion of this topic). Thus, especially among Latinos, context and measurement must be attended to when evaluating the effects of phenotype.

Furthermore, these issues become increasingly important when we consider the association between phenotype and more interpersonal or subjective life experiences, such as ethnic identity. For example, early research indicated that among Mexican-origin children, a greater preference for lighter skinned dolls and friends over darker skinned dolls and friends, along with their tendency to incorrectly racially identify themselves when asked about their own skin color, was indicative of a lowered, or confused, ethnic identity (Cota-Robles de Suárez, 1971; Teplin, 1976). Yet, skin color preference or self-identification among children may not necessarily be indicative of a child's ethnic identity (Banks, 1976) but may instead reflect the child's understanding of racial bias (Corenblum & Annis, 1993).

Hence, studies such as these have confounded racial classification with ethnic identity, and most studies on phenotype have not considered the measurement and significance of race for Latinos. Because Latinos are at once an ethnic group and a multiracial group, race may take precedence over ethnicity for some Latinos, whereas for others ethnicity may take precedence over race (Araújo & Borrell, 2006). Additionally, for some, race and ethnicity may

be used interchangeably or not at all. Thus, even though Latinos are often more likely to identify as White (Golash-Boza & Darity, 2008), the meaning of such designations is not always clear and is not always indicative of ethnic identity. In other words, identification as White or Black does not necessarily mean that a participant identifies as more or less Latino. Instead, racial classifications may be more indicative of racial attitudes and discrimination than an indicator of ethnic identity or affiliation. Finally, as is often the case with skin color among Latinos, the propensity to racially identify with one group over another is often contingent on place, ethnic group, or even the way a question is asked (Landale & Oropesa, 2002).

Yet, even if for some Latinos racial identification may be independent of ethnic identity, it is possible that variations in appearance may still be associated with the aforementioned components of ethnic identity, such as a sense of belonging or strength of affiliative bonds. A review of the extant literature indicates that although a handful of studies have not found a direct association between phenotype and ethnic identity (Alarcón, Szalacha, Erkut, Fields, & García Coll, 2000; Ayers, Kulis, & Marsiglia, 2013), for some, phenotype may be directly related to ethnic identity. For example, in early research with Mexican-origin individuals, darker skinned participants used more ethnically defined self-descriptors, expressed more interest in the Latino community (Vazquez, Garcia-Vazquez, Bauman, & Sierra, 1997), and had a greater preference for speaking Spanish than their lighter skinned counterparts (Arce, Murguía, & Frisbie, 1987). More recent research has found that ethnic identity affirmation was positively associated with familial ethnic socialization, particularly for darker skinned and more Latino-appearing adolescents (Gonzales-Backen & Umaña-Taylor, 2011). Thus, at least on the basis of this research, having darker skin appears to be related to various components of ethnic identity, such as greater ethnic affirmation, belonging, and commitment, perhaps because others more readily identify or expect darker skinned individuals to be "more ethnic or Spanish" or perhaps because their lighter skinned peers may more easily pass as non-Hispanic White (e.g., Lewin, 2005).

These findings are particularly important when we consider that darker skinned Latinos have reported more negative self-perceptions, more depressive affect and symptomatology, and lower self-esteem than their lighter skinned peers (Maldonado & Cross, 1977; Ramos, Jaccard, & Guilamo-Ramos, 2003; Telzer & Vazquez Garcia, 2009). Furthermore, a growing body of research has indicated that negative racial stereotypes are activated more quickly, especially among those with negative racial attitudes, when evaluating faces of individuals with more Afrocentric features (Blair, Chapleau, & Judd, 2005; Stepanova & Strube, 2012). For example, those with more Afrocentric features, regardless of race, are typically judged to be more violent and often receive harsher sentences than those with less Afrocentric features (Blair,

Judd, & Chapleau, 2004). It may, therefore, be hypothesized that ethnic identity may be particularly important for darker skinned individuals because it can protect against feelings of discrimination and distress. In fact, a growing number of studies have found that ethnic identity does serve as a moderator in the relation between phenotype and psychological distress (Kiang & Takeuchi, 2009; Perry, Stevens-Watkins, & Oser, 2013).

Still, the protective effects of ethnic identity may not be exclusive to darker skinned participants. That is, despite the economic advantages and social capital of having lighter skin, lighter skin has also been associated with feelings of estrangement and perceived rejection from one's community (Cunningham, 1997; Hunter, 2007). Thus, the relation between ethnic identity and phenotype, as well as the benefits incurred from ethnic identity, may differ depending on one's appearance and may be contextually dependent. For example, Codina and Montalvo (1994) found that although darker skin was related to poorer mental health for Mexican men born in the United States, a darker skin color was conversely related to better mental health among women born in Mexico.

In sum, the relation between phenotype and ethnic identity is complex and not always direct, linear, or stable. Although group belonging is important for psychological health for ethnic minorities (Smith & Silva, 2011), the associations between ethnic identity and phenotype may vary according to how each variable is measured. Moreover, the meaning and function of ethnic identity may vary according to one's phenotype and how that appearance is evaluated within a given context. With this in mind, we now turn to our studies that assessed the associations between phenotype and ethnic identity in a group of English- and Spanish-speaking Puerto Rican women.

OVERVIEW OF SELECTED WORK

Puerto Rican women are a convergence of Indian, African, and Spanish ancestry (López, 2008b). As a result, they have a broad range of characteristics, such as variations in skin color and physical features, which makes them an ideal group in which to study the associations between phenotype and ethnic identity. Within this group, one sample of 75 English- and Spanish-speaking women were interviewed to (a) assess the relations among ethnic identity, phenotype, and self-esteem among the English-dominant women (Study 1); (b) assess the relations between ethnic identity, phenotype, and appearance anxiety among the Spanish-dominant women (Study 2); and (c) qualitatively and quantitatively assess the experiences of ethnic misidentification among both groups of women (Study 3). This body of work is noteworthy because we not only used multiple measures of phenotype within each study,

but we also strived to illuminate the more complex associations between the study variables among different language groups.

DESCRIPTION OF SAMPLE

Across all three studies, participants were Puerto Rican women between the ages of 19 and 50 who resided in a major metropolitan city. 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 the recruited participants were asked to nominate others for the study. This technique was effective in recruiting a large number of participants in a relatively short amount of time (6 weeks). However, in practice, it meant that participants ended up recruiting other members who were most like themselves, economically and phenotypically, which yielded a relatively homogenous sample. Once participants were recruited, informed consent was obtained and most interviews were conducted in participants' homes.

MEASURES

All of the studies assessed the relation between phenotype and ethnic identity, although they varied as to whether they assessed self-esteem or appearance anxiety in either English- or Spanish-speaking women. All measures were back translated prior to the beginning of the study, and the order in which the scales were administered was counterbalanced throughout the study. Descriptive statistics for the measures are given in Table 5.1.

Ethnic Identity

Ethnic identity was measured using an abbreviated 8-item version of Phinney's (1992) Multigroup Ethnic Identity Measure (MEIM). Items (e.g., "I have a strong sense of belonging to my ethnic group") assessed ethnic affirmation and belonging (five items) and commitment (three items) following Martinez and Dukes's (1997) abbreviation of the MEIM. Responses ranged from 1 (*strongly disagree*) to 4 (*strongly agree*), and a composite score was created, with higher scores indicating a higher level of ethnic identity.

TABLE 5.1
Descriptive Statistics and Intercorrelations Among Main Study Variables Among English-Dominant Participants ($N = 53$)

Measures	*M*	*SD*	95% CI	α	1	2	3	4	5	6	7	8	9
1. Self-esteem	3.42	.50	1.67–4.00	.86	—	.31*	.09	.38**	−.04	.03	−.12	.06	−.03
2. Ethnic identity	3.45	.52	1.88–4.00	.84		—	.23	.41**	.36**	−.26	.17	.26	.32
3. English proficiency	3.86[a]	.25	3.00–4.00	.82			—	.18	.06	.08	.05	.12	.06
4. Spanish proficiency	3.03[a]	.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	5.89	1.71	3.00–9.00	.86							—	.80***	.84***
8. Interviewer rating	5.96	2.23	1.00–9.00	.92								—	.92***
9. All color ratings	12.71	2.29	7.63–16.64	—									—

Note. CI = confidence interval. Adapted from "'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," by I. López, 2008, *Cultural Diversity and Ethnic Minority Psychology, 14*, p. 104. Copyright 2008 by the American Psychological Association.
[a]Participants had greater English than Spanish proficiency, paired $t(52) = 9.72$, $p < .001$. [b]$N = 52$.
*$p < .05$. **$p < .01$. ***$p < .001$.

Language Proficiency

Language proficiency was assessed using a subscale of Marín and Gamba's (1996) Bidimensional Acculturation Rating Scale for Hispanics. This measure is a 12-item scale that assesses proficiency in either English or Spanish (e.g., "How well do you speak English/Spanish?"). Items were scored on a 4-point Likert scale, ranging from 1 (*almost never/very poorly*) to 4 (*almost always/very well*), and 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. Although language use is typically a proxy for acculturation, as we show, we believe language proficiency was used as a way to affirm group identity.

Phenotype

Phenotype was assessed by measuring skin color and facial features. Skin color was assessed using the Color Guide hand-held spectrophotometer (Version 45/0, UMM Electronics, Indianapolis, Indiana). This was a small, portable, battery-operated reflectance meter that generated two reflectance scores. The first was a measurement of light intensity, and the other was a pigment-related score that assessed yellow melanin. To ensure reliability, two spectrophotometer readings were taken from each participant, and a composite score was computed for each index. In accordance with standard procedures (Weiner & Lourie, 1969), the medial surface of a participant's upper left arm was cleaned with an alcohol swab before any readings were taken.

Phenotype was measured using similarly worded participant and masked interviewer ratings that were specifically developed for this study. The phenotype scales were composed of 10 items that assessed various physical features (e.g., hair, mouth, nose, eyes) and skin color. However, the items that assessed hair and eye color were subsequently dropped because they were difficult to consistently assess, and their inclusion resulted in negative interitem correlations. The majority of response options ranged from 1 (*very light/thin*) to 9 (*very dark/broad*). Unlike previous studies, the skin color measures were not dichotomized into light and dark (Codina & Montalvo, 1994). Instead, participants had to separately describe their skin color using Puerto Rican and American skin color classifications, as previous research has noted that Latin American color classifications may differ from North American racial classifications (e.g., Telles, 2004). These items were rated on a 9-point scale in which all participants were first asked to mark, on a continuous scale, whether they considered themselves *Blanca* (1–3), *Trigueña* (4–6), or *Negra* (7–9), and later if they were *White* (anchored at 1) or *Black* (anchored at 9). Items 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 more White features.

Self-Esteem

In Study 1, self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). 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. One item, "*I wish I could have more respect for myself*," was dropped because of its low item–total correlation, which is in keeping with other studies that have also noted problems with this particular item (Farruggia, Chen, Greenberger, Dmitrieva, & Macek, 2004). A composite score of the remaining nine items was obtained by summing the total of all responses and obtaining the mean, with a higher score indicative of greater self-esteem.

Appearance Anxiety

In Study 2, we assessed appearance anxiety using an abbreviated version of the Appearance Anxiety Scale (Dion, Dion, & Keelan, 1990). This scale asked participants to rate how characteristic they felt an item described their feelings toward their physical appearance (e.g., "I feel nervous about aspects of my physical appearance"). Items were rated on a 4-point scale, ranging from 0 (*never*) to 4 (*almost always*), and a composite scale score was created, with higher scores indicative of greater appearance anxiety (i.e., discomfort with one's appearance).

STUDY 1: PHENOTYPE, ETHNIC IDENTITY, AND SELF-ESTEEM AMONG ENGLISH-DOMINANT WOMEN

In Study 1, we assessed whether ethnic identity would serve as moderator in the relation between phenotype and self-esteem in a sample of 53 English-dominant Puerto Rican women (see López, 2008b). As a first step, we examined the validity of the measures of skin color (see Table 5.1). As expected, spectrophotometer readings were highly correlated with one another, with lightness inversely related to yellow pigment. The two objective spectrophotometer scores were also highly correlated with the subjective participant and interviewer ratings of skin color and features. These subjective ratings were, in turn, associated with one another. Given the strong correlations between the phenotype ratings, a composite index of the four measures was created. With regard to the main study variables, only lightness

TABLE 5.2
Summary of Hierarchical Multiple Regression Predicting Self-Esteem ($N = 53$)

	Ethnic Identity × Skin Color		
Variables	$R^2\Delta$	B (*SE*)	β
Step 1: Control variables	.30***		
Age		.01 (.01)	.16
Spanish proficiency		.25 (.10)*	.31
Ever visited Puerto Rico		.46 (.17)***	.33
Step 2: Composite phenotype ratings	.00	−.02 (.06)	−.03
Ethnic identity	.00	−.08 (.07)	.15
Interaction term	.12**		
Ethnic Identity × Phenotype		.16 (.05)**	—

Note. R^2 .42/Adjusted R^2 .35. Only final order statistics presented. Adapted from "'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," by I. López, 2008, *Cultural Diversity and Ethnic Minority Psychology, 14*, p. 106. Copyright 2008 by the American Psychological Association.
*$p < .05$. **$p < .01$. ***$p < .001$.

was associated with ethnic identity, and only greater Spanish fluency was associated with higher self-esteem and ethnic identity.

A hierarchical multiple regression was run in which Step 1 included three control variables (i.e., age, Spanish fluency, and visits to Puerto Rico), Step 2 included the standardized composite of phenotype ratings, Step 3 was the standardized variable of ethnic identity, and Step 4 was the interaction between the cross-products of phenotype and ethnic identity (see Table 5.2 for final order statistics). As shown, 30% of the variance in self-esteem was explained by Spanish fluency and visits to Puerto Rico, which aligns with previous research noting that greater Spanish fluency can help U.S. Latinos affirm their ethnic membership (Jimenez, 2004). However, neither phenotype nor ethnic identity was related to self-esteem. Instead, a significant interaction emerged between ethnic identity and phenotype in predicting self-esteem, which explained an additional 12% of the variance in self-esteem, above and beyond the aforementioned variables, $F(1, 46) = 9.35$, $p < .01$.

To assess this interaction, we initially ran a separate regression for both high and low values of the standardized predictors, as indexed by the median split, and then plotted and visually inspected the interaction (López, 2008b). However, the median splits are not an optimal choice for continuous predictors (Aiken & West, 1991), and visual inspection does not quantify under what conditions a predictor is significantly related to an outcome (Holmbeck, 2002). Thus, we probed this interaction by conducting a test of the simple slopes for phenotype and self-esteem, at high and low levels of ethnic identity, as indexed by one standard deviation above and below the mean. As shown in Figure 5.1,

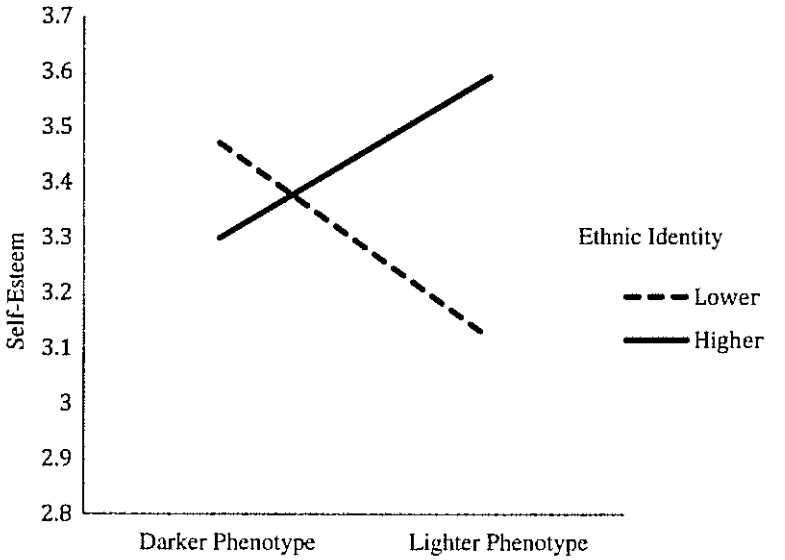

Figure 5.1. Interaction between ethnic identity and phenotype. Adapted from "'But You Don't Look Puerto Rican': The Moderating Effect of Ethnic Identity on the Relation Between Skin Color and Self-Esteem Among Puerto Rican Women," by I. López, 2008, *Cultural Diversity and Ethnic Minority Psychology, 14*, pp. 102–108. Copyright 2008 by the American Psychological Association.

a lower ethnic identity was associated with significantly worse self-esteem for those with lighter skin and more Europeanized features, as opposed to their darker skinned peers, $b = -.175$, $SE = .081$, $t = -2.159$, $p < .05$. Additionally, there was a trend for a higher ethnic identity to be associated with better self-esteem for lighter women, $b = -.146$, $SE = .08$, $t = 1.815$, $p = .08$.

In keeping with previous research, our study indicated that ethnic identity functioned as a moderator or buffer between skin color and self-esteem. Yet, why wasn't a high level of ethnic identity equally (or more) beneficial for darker skinned women? One reason may be that as a group, lighter skinned women may not routinely be ascribed an ethnic or minority affiliation, and thus having a higher ethnic identity allows them to claim affiliation to their group. Hence, having a strong sense of ethnic belonging can protect against being misidentified as White and non-Latino. In contrast, among darker skinned women, the addition of ethnic identity did not substantially alter the relation between phenotype and self-esteem, perhaps because they may already be readily identified as minorities (although not necessarily Latinos). Additionally, for darker skinned Latinos, it may be that more than ethnic identity is needed to substantially modulate their self-esteem given their well-documented experiences with overt discrimination and economic hardship.

Given these findings, in our next study we wished to assess the effects of phenotype and ethnic identity with an outcome variable that was more closely linked to appearance and skin color. Thus, we assessed the associations between phenotype, ethnic identity, and appearance anxiety, as no studies to our knowledge have assessed appearance anxiety with phenotype. Additionally, given previous research noting that for Latinos the associations and meaning of phenotype may differ by context (Rodriguez, 2000), we wished to extend our analysis to assess the relations between phenotype, identity, and appearance in a group of Spanish-dominant women. Thus, in contrast to our first study, we wanted to assess the association of these variables in a group that was linguistic secure and dominant in Spanish and presumably more culturally immersed within traditional Puerto Rican culture.

STUDY 2: PHENOTYPE, ETHNIC IDENTITY, AND APPEARANCE ANXIETY AMONG SPANISH-DOMINANT WOMEN

In our second study, we assessed appearance anxiety in a sample of 22 Spanish-dominant mainland Puerto Rican women (Lopez & Walker, n.d.-a). *Appearance anxiety* refers to the discomfort or apprehension related to aspects of one's physical appearance and concerns over how the self is evaluated by others (Dion et al., 1990). To date, most of the research on appearance anxiety with women has focused on issues related to body dissatisfaction or eating disorders (e.g., Koskina, Van den Eynde, Meisel, Campbell, & Schmidt, 2011; Monro & Huon, 2005). As a result, other aspects of physical appearance, such as evaluative comments concerning facial features, hair, and skin color, have not been sufficiently explored even though these are issues of concern for a number of minority women (Buchanan & Acevedo, 2004; Comas-Díaz, 1994; De Casanova, 2004; Robinson, 2011; Stephens & Fernández, 2012).

As in Study 1, we first validated the measures of phenotype and the spectrophotometer ratings (see Table 5.3). As expected, lightness and yellow pigment were similarly and inversely related. Participant and interviewer ratings of skin color were also highly associated with one another. However, despite the strong association between the interviewer and participant ratings, only the interviewer ratings were, in turn, associated with the two spectrophotometer readings. Closer inspection of the ratings indicated that the interviewer ratings had more variability and spread in comparison to the participant ratings. For example, the 95% CI for interviewer ratings was 4.70–6.09, whereas for the participant ratings it was 5.46–6.41. In practice, this meant that when skin color was assessed according to Puerto Rican color standards, only one participant rated her own skin color as darker than *trigueña*, whereas the interviewer rated eight participants as darker than *trigueña*. Thus, participants

TABLE 5.3
Descriptive Statistics and Intercorrelations Among Phenotype Variables For Spanish-Dominant Women ($N = 22$)

Measures	*M*	*SD*	95% CI	α	1	2	3	4
1. Lightness	58.89	5.02	56.66–61.11	—	—	−.76**	.27	.61*
2. Yellow pigment	20.16	2.10	19.23–21.09		—	—	−.42	−.60*
3. Participant ratings	5.93	1.07	5.46–6.41	.73			—	.67**
4. Interviewer ratings	5.39	1.57	4.70–6.09	.90				—

Note. CI = confidence interval.
$p < .06$. *$p < .01$. **$p < .001$.

rated themselves as lighter than the interviewer ratings, $t(21) = -2.18$, $p < .05$. Consequently, a composite measure of skin color ratings could not be created as had been done for the English-dominant sample.

Additional analyses revealed that neither the spectrophotometer nor the interviewer ratings were linearly associated with any of the main study variables (i.e., appearance anxiety, ethnic identity, or language fluency). Instead, it was the participants' ratings of their own appearance, which combined skin color and facial features, that were related to appearance anxiety, $r = .47$, $p < .05$. In particular, appearance anxiety was greatest among women who rated their phenotype as more fair. Also, ethnic identity was inversely related to appearance anxiety, $r = -.43$, $p < .05$. Finally, contrary to our hypothesis, among this small group of Spanish speakers, neither English nor Spanish fluency was related to either appearance anxiety or ethnic identity. However, English proficiency was negatively associated with a darker self-rated phenotype, $r = -.54$, $p < .05$. In sum, the rating of skin color differed according to the language of the participant. Additionally, the pattern of associations between phenotype and ethnic identity varied between English- and Spanish-speaking women. And finally, the effects of language proficiency differed according to the language group studied.

STUDY 3: MISIDENTIFICATION AMONG PUERTO RICAN WOMEN

Our final study surveyed both English and Spanish-speaking women ($N = 75$) and centered on understanding the experience of ethnic misidentification. As we have detailed among traditionally marginalized groups, a sense of belonging, or group attachment, is important because it serves to unify and rally members in the face of various threats and provides a shared sense of community

(López, 2008b). However, as a mixed-race group, Latinos differ along a number of physical dimensions and are, therefore, often subject to inquiries regarding their ancestry. Hence, we wished to understand what occurs when group members are misidentified and told that they do not look like their group.

Study Design

For this study we used a mixed methods design in which we concurrently collected quantitative assessments of the association of the various skin color measures with appearance anxiety, as well as qualitative data on the experience of misidentification (Creswell & Plano Clark, 2007). As such, this convergent designed study simultaneously assessed the quantitative patterns between our variables and also allowed for the textual analysis of polyvocal narratives among those who have been misidentified, but not sufficiently represented in the literature (Bartholomew & Brown, 2012; López, 2005).

Measures

In addition to the aforementioned phenotype and ethnic identity scales, the primary investigator asked the following three open-ended questions: "Has anyone ever told you that you don't look Puerto Rican?" (which allowed for the assessment of prevalence); "Why do you think that happened?" (which allowed us to explore and tabulate the proposed mechanisms or risk factors for cultural misidentification); and "How did that make you feel?" (which allowed us to list and describe any psychological outcomes). Questions were asked in either English or Spanish depending on the preference of the participant.

Collection and Analyses of Data

Once the participants completed the surveys, the aforementioned questions were asked by the interviewer, who then wrote down the responses of the participant verbatim. These responses were then read back to the participants to either correct for any errors and, whenever needed, to follow up with clarifications. At the completion of the study, the interviewer then gave the sheet of responses to a separate rater who typed up each of the participants' responses. Responses for each of the questions were typed onto index cards that were color coded according to participant language. Hence, there was a card for every participant, and raters took turns in using the cards to sort and code themes. Raters first went through each of the three questions on the card and coded the themes according to each of the questions. To prevent bias, the coding of responses was never written on the card but was carried out on separate data sheets.

Using grounded theory, the principal investigator, a Puerto Rican woman, and the secondary rater, a mixed-race woman, individually reviewed the data and open coded the cards into broad themes (Ryan & Bernard, 2003; Strauss & Corbin, 1998). Following this, we coded more minutely into subthemes or axial codes and then discussed until consensus was reached (Hill, Thompson, & Nutt Williams, 1997; Ryan & Bernard, 2003). Throughout the process, themes were coded using an inductive approach. However, during the final confirmative stage of our qualitative analysis, we applied a deductive approach to identify individual cases that did not fit neatly into our aforementioned categories (Patton, 2002). This further scrutiny of the data, along with the analysis of the quantitative data, helped us get a richer picture of the process of misidentification. Finally, by using two independent raters, we tried to address issues of reliability and triangulation.

RESULTS

The results of our quantitative analysis found that, similar to our earlier smaller study with Spanish-dominant women, appearance anxiety was negatively related with ethnic identity, $r = -.40$, $p < .01$. However, there were no significant associations between any of the skin color variables and appearance anxiety. Additionally, our qualitative research indicated that approximately 80% of the participants had been told that they did not look Puerto Rican ($n = 42$), with close to half ($n = 20$) also volunteering that it happened frequently, especially when they were younger. Hence, in this sample, although skin color per se was not associated with appearance anxiety, misidentification was a highly prevalent and frequent experience.

Reasons for Misidentification

In response to the second question, "Why do you think that you were told that you did not look Puerto Rican?" participants indicated that they were most likely misidentified because of their physical appearance ($n = 36$), language ($n = 10$), and/or behaviors ($n = 8$).

Skin Color

In particular, women were most commonly told that they did not look Puerto Rican because of their skin color—either because they were too light or too dark ($n = 20$). As a result, one participant even noted that she would preemptively announce her ethnicity when meeting with others to prevent this misidentification from occurring ("Sometimes I'll say I'm Puerto Rican, so it's out in the open").

Physical Features

Following skin color, women also said that they were misidentified because of specific features, such as texture of their hair ("Because they don't think Puerto Ricans can have good hair"), color, and even hairstyle. Others were told that they did not look Puerto Rican because of other features, such as their jaw ("I have a weird broad jawline"); their noses; or because other specific characteristics, such as green eyes, freckles, or birthmarks. Furthermore, at least two women were told that they did not look Puerto Rican because of their body size or, as one participant bluntly stated, because others believed that "Latinas were typically meatier." Most commonly, however, participants stated that they were misidentified on the basis of a host of combined features. In short, women reported being regularly subjected to the scrutinization of others and at times also reported evaluating themselves ("Maybe it's because of my nose, it's too pointy").

Language

Women were also told that they did not look Puerto Rican if they spoke English or if they spoke English without a Spanish accent. Consequently, some women reported using language as a way to mark or authenticate their identity to others ("Sometimes I'll speak Spanish early on in a conversation"). Thus, they consciously code switched into Spanish or at times even changed the way they spoke English to be identified as part of the group. For example, one participant noted, "Sometimes they think I'm Black or Dominican, but once I start speaking they know. I speak really *jibara*, perhaps that gets me identified easier." Thus, in speaking in the language and tone of the *jibaro*, or as a stereotypical Puerto Rican peasant, this participant hopes to get quickly identified, and presumably accepted, as a member of her ethnic group by alluding to this symbol of Puerto Rican national identity. Although such efforts underscored the importance of being identified as a group member, they also highlighted the extent to which some participants performed, and perhaps endorsed, stereotyped views of their own ethnicity. Conversely, for Spanish-dominant participants, language often served as a buffer against misidentification, as one participant noted that "as soon as I open my mouth, believe me they know."

Behavior

In addition to the assumptions regarding how Puerto Ricans looked and talked, participants were sometimes told that they did not look Puerto Rican on the basis of how they acted. In particular, some were told that they did not seem to be Puerto Rican because Puerto Ricans only wore "street clothes" or

were "loud and rude." Hence, ethnic group membership was evaluated on the basis of racist, sexist, and classist stereotypes.

RESPONSES TO MISIDENTIFICATION

Women had a variety of responses to misidentification. That is, some were highly offended and angry ("When they say you don't look Puerto Rican, I say what the hell does that mean?") because they felt it was a denial of their identity and a form of discrimination ("Gets me upset because I know who I am [and] they are questioning me based on stereotypes, and judging me"). Still, others were offended because they were misidentified for either another self-perceived lower status group, such as Blacks, or another group with which they have had a long history of rivalry, such as Dominicans ("Truthfully, when they say I'm Dominican, I don't like that [because] the majority that I know have nasty attitudes" or "It's an insult when they say that to me"). Conversely, some participants were not bothered when they were misidentified because of a strong sense of ethnic identity (e.g., "It doesn't bother me because I know my ethnicity and culture"). Thus, for some, ethnic misidentification was perceived as a threat, and for others, a secure sense of ethnic identity appeared to buffer them from distress.

Yet, a few reported feeling flattered, as one participant noted, "In a way I felt complimented because they were identifying me with their culture and so I was flattered." In particular, some also reported feeling proud when they were identified with being White. Notably, one participant reported that she didn't care about being misidentified because she was not proud of her heritage. She endorsed the view of Puerto Ricans as lazy and poor and so, as she explained, "I don't like the welfare thing because I think that's typical 'Rican'—not motivated—so sometimes it's a compliment (to get misidentified)."

Additionally, for some, feeling exceptional made them feel valued and "exotic." For example, one woman stated, "I like it in a way because they want to discover me, I am a curiosity, something of a mystery to others, it's not frustrating or exhausting, I enjoy it." Yet, feeling exceptional did not always make participants feel good; instead, it could make them feel objectified and foreign. For example, one participant remarked, "Once I was at a restaurant and I was asked what I was and then the person says 'you're a light one!'"

Responses to misidentification were often linked to intragroup experiences with racism. Participants noted being especially frustrated when other Latinos misidentified them because they believed that other Latinos, especially other Puerto Ricans, should be better informed. As one lighter skinned participant aptly noted, "It's a sensitive subject with me because I am proud of who I am. I feel especially offended by other Latinos because they should

know better—they are trying to say I'm less Puerto Rican because I'm White." Additionally, participants felt excluded when they were misidentified ("It bothers me when I'm around other Puerto Ricans because I want to be part of the community but I don't look like them"), as well as rejected ("I feel bad because it's a rejection, especially if other Puerto Ricans say that, no one wants to feel different, everyone wants a sense of belonging"). As a result, some participants felt the immediate need to try and educate the person ("I try to educate people that Puerto Ricans come in all shapes and colors") after they were misidentified, although they also noted the fatigue of often having to "represent."

In sum, our qualitative research indicated that our participants thought a great deal about their physical appearance, perhaps because others were so frequently asking "what" they were. They informed us of just how prevalent the phenomenon of misidentification was and demonstrated the wide range of feelings that this experience can incur. Many of these experiences, from feeling exotic and attractive to feeling angry, discriminated against, and marginalized have also been found in past research with racially ambiguous and mixed-race women (Edwards & Pedrotti, 2008; Iijima Hall, 2004). Furthermore, our research revealed that the effects of misidentification appear to be more toxic when it was someone within a person's own group who misidentified them. Thus, ethnic identity can be particularly difficult to sustain during intergroup discrimination. Finally, the data described the various ways that participants attempted to prevent, neutralize, or even accentuate the experience of misidentification.

These ranges of responses may explain why we did not find significant linear associations between our quantitative variables. Additionally, it may also be that we did not find a relation between the phenotype variables and appearance anxiety because the Appearance Anxiety Scale did not adequately or sufficiently assess feelings surrounding race-based assessments. Furthermore, although the phenotype variables provided subjective and objective measurements of skin color and features, it did not measure how participants themselves felt about these characteristics. We believe it would have been difficult to understand the associations that emerged in these interviews had we only used quantitative measures.

CHALLENGES ENCOUNTERED

Using multiple measures and mixed methods has allowed us to explore the complex relation between phenotype and ethnic identity. In particular, the use of multiple measures, among both English- and Spanish-speaking groups, was key to establishing content and convergent validity. To assess ethnic identity, we tried to use multiple measures that assessed group belonging, such as the Phinney scale on Multigroup Ethnic Identity (Roberts et al.,

1999), although we also tried to supplement this with measures that have been known to shape group identity, such as language fluency. To this end, our quantitative research did indicate that fluency was associated with a greater sense of group belonging, and this general finding was further echoed in our qualitative research, which showed that language use was sometimes used to accentuate group membership.

Phenotype was assessed using multiple measures, such as the two indices of the spectrophotometer, as well as by subjective measures, such as the separate, but parallel, participant and interviewing ratings. Thus, our quantitative results showed that the generally high correlations between the spectrophotometer ratings and the subjective ratings indicated that we were assessing the same variable. Additionally, the consistency of the spectrophotometer helped with our reliability in the assessment of skin tone, which has historically been quite problematic. Still, the use of the spectrophotometer was at times problematic. That is, despite being small, it was not unobtrusive. Although participants were not afraid of it, some of them were very anxious to find out their "number" and would often ask the principal investigator what her number was to form a comparison. This, however, only highlights how assessment of skin tone is also contextual and relational. Indeed, future studies should assess how participant responses to skin color measures, and ethnic identity are in part influenced and mutually constituted by what they believe a researcher believes and wants to hear (Khanna, 2004).

Finally, although mixed methods can certainly provide rich data, investigators interested in understanding the relation between ethnic identity and phenotype need to be creative in how to integrate the quantitative and qualitative data. For example, in our third study we used a convergent design, where we simultaneously collected the quantitative and qualitative data, but investigators can use other designs that place either the quantitative or qualitative component at the forefront, depending on the scope and question(s) of the study.

FUTURE DIRECTIONS AND CONCLUSIONS

As we have hopefully shown, the study of phenotype and ethnic identity is complex. For the budding researcher, or even senior scholar, who is interested in pursuing this topic, we offer the following guidelines on the basis of our review of the research, as well as on our own challenges in completing our work.

Use of Valid Measures

Often in the study of phenotype, scales are created without sufficient explanation to the process involved. More to the point, there is rarely any

mention of how the ratings were anchored or whether pilot data were obtained. In our own research, we tried to take into account that our participants could be using multiple reference points when assessing themselves, and so to this end we included parallel measures that assessed skin color using North and Latin American terms.

Additionally, whenever possible, we believe that participants should rate themselves independent of the rating of multiple interviewers, as prior research has noted that these assessments may differ (Rodriguez, 2000). Further, ratings of phenotype should include the indigenous systems of classification used by the participants under study, as these systems may convey different conceptualizations of group identity (Gravlee, 2005; Itzigsohn, Giorguli, & Vazquez, 2005). Raters should be trained and be knowledgeable about phenotypic issues in the communities studied because this knowledge will ensure a more careful and reliable assessment of phenotype. This will also help when trying to understand the associations between phenotype and group membership in particular communities. Given the importance of context, a recommendation for future research is to assess participants' self-ratings of phenotype in different contexts (e.g., when they are in the company of culturally similar individuals vs. in an ethnically dissonant environment).

Use of More Varied Samples and Variables

Most of the research on phenotype and ethnic identity has focused on understanding these issues in either adolescents or emerging adults (see Alarcón, Szalacha, Erkut, Fields, & García Coll, 2000, for an exception). However, if ethnic identity is fluid, then we must begin to understand the development of this process across different age groups. This is especially important as issues surrounding skin color and overall physical appearance begin to take shape during childhood.

Related to this, different ethnic groups should also be surveyed because the relation between appearance and ethnic identity may also change depending on the groups studied. For example, do certain groups have a greater African or European ancestry than others? If so, would this change the importance given to appearance and group belonging? More specifically, do the relations between ethnic identity and phenotype vary within families? If, as Gonzales-Backen and Umaña-Taylor (2011) noted, the family is the central resource for socialization and messages about ethnic identity, then does it also transmit messages with regards to phenotype and how it relates to ethnic identity? Related to this, it is also crucial that discrimination measures are incorporated into studies trying to understand phenotype and ethnic identity. As previous research has indicated, it is not so much one's skin color or features that matter in and of themselves, but rather how these characteristics are valued in a given context.

More Sophisticated Modeling

Given the fluidity and contextual nature of ethnic identity and phenotype, more studies are needed that look at the shifting relationship between these variables over time. Although daily diary studies have noted the daily fluctuations in the feelings and importance attributed to ethnic identity (Torres & Ong, 2010), to our knowledge, there are no current psychological studies that look at the same phenomena with regard to phenotype. This is particularly unfortunate because sociological research has shown that both ethnic and racial identifiers are subject to change over time (Golash-Boza & Darity, 2008), sometimes from survey to survey over the course of a day (Eschbach & Gomez, 1998). In other words, even though our skin color cannot in fact change from day to day without external manipulation, there is reason to believe that the way we label or describe our skin color can change, depending on the day, the context, and over time (Rodriguez, 2000). By extension, it is also reasonable to assume that our feelings toward our appearance can also change accordingly. Longitudinal designs will also enable a clearer understanding of how these variables relate to one another over time.

We began this chapter by asking, "Does it matter how you look?" Our work suggests that there does appear to be a connection between our physical appearance and our feelings toward our ethnic group and that, likewise, the way we look affects how members of our own ethnic group feel toward us. The relation between these two variables, phenotype and ethnic identity, are in turn influenced by a host of contextual variables. Additionally, measurement issues, such as issues related to validity, reliability, and study design, have restricted our understanding of these issues. As we have delineated, one way that researchers can get closer to understanding the relation between phenotype and ethnic identity is through the use of multiple measures and mixed methods. Additionally, we would hope that in the future researchers move away from static models of associations and look more closely at how phenotype and ethnic identity are mutually constitutive, because how you look does affect how accepted and embedded you feel in your group. Conversely, your ethnic group can also influence how you label and see yourself.

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