

Sources of Self-Categorization as Minority for Mixed-Race Individuals: Implications for Affirmative Action Entitlement

Jessica J. Good, George F. Chavez, and Diana T. Sanchez
Rutgers University

Multiracial individuals are in the unique position of being able to categorize themselves as members of multiple racial groups. Drawing on self-categorization theory, we suggest that similarity to the minority ingroup depends on self-perceptions of physical appearance and connectedness to the minority ingroup. Moreover, we argue that similarity to the ingroup determines self-categorization as minority, which predicts category-based entitlements such as perceived eligibility for minority resources (e.g., affirmative action). Using path analysis, we found support for this model on a convenience sample of 107 mixed-race minority–White participants. The results suggest that affective processes rather than observable characteristics such as prototypical physical appearance better predict self-categorization among mixed-race individuals.

Keywords: multiracial, prototypicality, self-categorization, affirmative action

In the 2008 U.S. Presidential election, Barack Obama became the first president of biracial ancestry. Born to parents of two different races, President Obama readily embraces his heritage, but has also emphatically categorized himself as African American. He has continually stated that although he was born of a White mother and a Black father, he was viewed, treated, and identified as Black (Washington, 2008). Obama's experience is not unique among multiracial individuals (Lee & Bean, 2004), who have many identity options, ranging from monoracial (i.e., identifying with only one racial group) to extraracial (i.e., identifying with the human race; Renn, 2004). As Obama's identity demonstrates, ancestry alone does not determine racial self-categorization, but social and psychological factors contribute to this phenomenon as well. Identifying the psychological factors that affect multiracial individuals' racial categorization is an important step in understanding the multiracial experience. In this study, we explored the sociopsychological factors that relate to racial self-categorization among multiracial individuals, testing a model in which psychological sources of self-perceived similarity to the minority ingroup predict part-White multiracial individuals' self-categorization as minority.

Multiracial Individuals: A Unique Case for Self-Categorization Theory

The literature on social identity theory (SIT) suggests that mere categorization can elicit perceptions of similarities and differences between individuals, their ingroup, and their outgroup (Tajfel &

Turner, 1979). For example, minimal group paradigms show how categorizing an individual into an otherwise meaningless or arbitrary group can cause individuals to show ingroup bias and favoritism as well as outgroup stereotyping or denigration, possibly in attempts to maintain a positive self-image as reflected via one's group membership (Tajfel & Turner, 1979; see Hornsey, 2008, for a review).

Self-categorization theory (SCT) expanded SIT to consider how the salience of certain self-defining categories influences an individual's self-categorization as a member of a particular group (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; see also Hornsey & Hogg, 2000). What has received less attention in the SIT and SCT literature are the factors that predict self-categorization with a particular group because, in most cases, self-categorization is assumed for important indelible social categories such as race and gender. For example, individuals who are born of two Black parents are assumed to self-categorize as Black, and when their race is made salient, we expect them to self-categorize to a greater degree with their Black heritage than in a context in which race is not salient. However, individuals born of one Black and one White parent cannot be assumed to self-categorize as Black in a context in which race is made salient. Instead, multiracial people uniquely have multiple categorization options within the singular domain of race. For multiracial individuals, self-categorization into a particular racial category is a choice, whereas for monoracial individuals, self-categorization in indelible groups is assumed and level of identification with the group is the choice. This is precisely why we posit that multiracial individuals represent a unique case for SCT.

Multiracial Self-Categorization Choices

A great deal of literature has recently focused on the fluctuations in racial self-categorization among people of multiracial descent. Drawing on SCT (Turner et al., 1987), this work has mostly focused on how the social context can change whether a multiracial person of Asian–White descent, for example, self-categorizes

Jessica J. Good, George F. Chavez, and Diana T. Sanchez, Department of Psychology, Rutgers University.

This research was supported by a Jacob K. Javits Fellowship (U.S. Department of Education) awarded to Jessica J. Good.

Correspondence concerning this article should be addressed to Jessica J. Good, Department of Psychology, Rutgers University, 53 Avenue E, Tillet Hall, Piscataway, NJ 08854-8040. E-mail: goodj@eden.rutgers.edu

or identifies with the Asian, White, or broader multiracial group (Brown, Hitlin, & Elder, 2006; Harris & Sim, 2002; Rockquemore & Brunnsma, 2002; Sanchez, Shih, & Garcia, 2009). This work examines state or momentary fluctuations in self-categorization among multiracial people rather than trait self-categorization. Like “trait” self-esteem, “trait” categorization can be thought of as the racial categorization that a multiracial person has, resulting from repeated self-categorizations made over a long period of time. In this article, we focus on identifying what factors contribute to trait racial self-categorization.

Sources of Minority Self-Categorization

What some SIT and SCT theorists would consider the byproducts of self-categorization (perceived similarity to the ingroup, connectedness to the ingroup; Hogg, 2004; Hornsey, 2008; Postmes & Spears, 1998; Tajfel, 1981; Turner, 1991) may also serve as predictors or sources of minority categorization for multiracial people. Indeed, a recent review of Latino psychology suggests that both ethnic socialization and physical appearance affect development of monoracial Latino identity (Quintana & Scull, 2009). Little research details either the psychological factors that serve to inform *multiracial* individuals’ racial categorization or the psychological effects of racially categorizing oneself as minority as opposed to White (for part-White multiracial individuals).

Multiracial people of White and minority descent have two racial ingroups: their minority ingroup and their majority ingroup. We propose that for these individuals, feeling more similar to the minority group predicts self-categorizing with the minority group. Self-perceived similarity in this case can be thought of as similarity to a prototypical representation of a category, or racial group. The cognitive conception of prototypes asserts that for any particular category, there exists in memory an abstract instance of that category that best represents the group (Lakoff, 1987; Rosch, 1975). Psychologists have therefore hypothesized that the similarity between an object and a prototype predicts the relative ease with which it is categorized as part of that group (Mervis & Rosch, 1981). Similar work on exemplar-based processing asserts that the more closely a target person resembles a group exemplar, the more likely he or she is to be categorized as a group member (E. R. Smith & Zárate, 1992). Indeed, individuals made aware of group prototypes were more likely to engage in prototype-based processing on encountering group members (E. R. Smith & Zárate, 1990). SCT directly posits that perceived commonalities between oneself and a group influence group categorization (Turner et al., 1987). For instance, the theory of *normative fit* asserts that prospective group members must perceive their traits or behaviors as consistent with the normative beliefs and theories (e.g., stereotypes) about a particular group in order to self-categorize as members of that group (Turner, Oakes, Haslam, & McGarty, 1994). Multiracial individuals, having multiple possible racial categories with which to self-categorize, should base their choice on their felt similarity to a particular racial group. In other words, the extent to which a minority-White multiracial person views him- or herself as similar to the minority group or to the White group should influence self-categorization as a member of the minority or majority group.

SCT predicts that multiracial individuals will base their self-categorization on perceived similarity to a racial group, but does not address what factors predict feelings of similarity to the typical

racial group member. Evidence suggests that social connectedness to the minority group may influence perceived similarity to racial prototypes. Research on the social networks of minority individuals commonly has found a preference for those of a similar race (Ibarra, 1995; Mehra, Kilduff, & Brass, 1996). Similarly, Broman, Neighbors, and Jackson (1988) referred to Black group identity as feeling connected to similar others. Smith and Moore (2000) found that Black biracial college students, compared with monoracial Black students, feel less connected to the overall Black community, and further suggested that feelings of lower connectedness may weaken identification with the Black racial group. Although SCT posits that once self-categorized, individuals begin to feel particularly connected to other group members, in the form of depersonalization, we propose that for multiracial persons who have several racial category options, felt similarity to a particular racial group may precede self-categorization. Thus, the extent to which a multiracial individual feels connected to other members of a given racial group, the more similar he or she will feel to the prototype of that group and be more likely to self-categorize as part of that racial group. Research on the development of ethnic identity has shown that attachment or affective commitment is an important part of ethnic identification (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Phinney, 1992; see Phinney & Ong, 2007, for a review). To our knowledge, however, this study represents the first attempt to test feelings of connectedness to a minority racial group and felt similarity to the minority group as sources of minority self-categorization among multiracial persons.

In addition to connectedness, an affective-based predictor of similarity, multiracial persons may also base their felt similarity on more observable characteristics, such as their physical appearance. Previous research and theorizing have suggested that physical appearance represents a key component of racial prototypicality or similarity to a typical member of the racial group. Russell, Wilson, and Hall (1992) discussed a number of phenotypic stereotypes associated with Black individuals, citing hair texture and skin tone as particularly salient markers of Black identity. Psychologists have noted the enhanced ability of perceivers to categorize more typical-looking Black, Asian, and Hispanic targets (Blair, Judd, Sadler, & Jenkins, 2002; Holguin, McQuiston, MacLin, & Malpass, 2000; Khanna, 2004; Maddox & Gray, 2002). However, most of the work on phenotypic markers of ethnic categorization has focused on perceiver categorization (how others categorize minorities) rather than self-categorization (how minorities categorize themselves).

Only one study that we know of empirically examined whether physical appearance plays a role in racial self-categorization among multiracial individuals (Brunnsma & Rockquemore, 2001), finding that Black-White biracial respondents were more likely to self-categorize as monoracial Black if those respondents believed that they “appeared Black” to others. This work implies that biracial individuals carry cognitive representations for what it means to “appear Black,” and that these prototypes are used in determining self-categorization. We argue that appearance, as one component of the minority prototype, likely guides minority categorization by increasing one’s feeling of similarity with the minority racial group. Multiracial individuals, with a mix of two or more racial backgrounds, may vary in the extent to which they feel similar in appearance to one or more of those racial groups. Thus, we propose that the extent to which multiracial people view their

physical appearance as similar to the appearance of the minority group, the more likely they are to feel similar to the minority group and to self-categorize as minority.

The present study tested the extent to which affective (connectedness to the minority group) and observable (physical appearance) characteristics predict multiracial individuals' felt similarity to the minority group. Given the research outlined above, we predicted that these two sources of felt similarity would predict self-categorization as minority; however, we did not speculate about the relative contribution of each source to self-categorization. In other words, we explored whether connectedness or appearance would be equally important predictors of felt similarity.

Practical Implications of Self-Categorizing as Minority

For others to consider an individual for affirmative action, the individual must be judged an ethnic minority (Crosby, 1994). Bossuyt (2002) noted that the process of determining eligibility for affirmative action is especially complicated for mixed-race individuals, who may be members of both minority and majority racial groups. In fact, part-White biracial individuals are generally perceived as less qualified for affirmative action-based scholarships (Sanchez & Bonam, 2009), partly due to being seen as *less minority* than single-race ethnic minorities.

We know that perceivers judge affirmative action appropriateness by considering ethnic minority membership, but little research has addressed whether minority self-categorization in biracial people affects whether they view themselves as appropriate for these race-based policies. Work by Wenzel (1996, 1997, 2000, 2004) on category-based entitlements suggests that if individuals self-categorize as members of a particular group, they perceive themselves as equal, and therefore entitled, to benefits or resources designated for members of that group. Thus, individuals who self-categorize as ethnic minority group members should perceive themselves as eligible for or entitled to affirmative action-based resources and opportunities. Affirmative action scholars have specifically noted the importance of understanding how multiracial individuals perceive their own racial categorization in determining affirmative action eligibility (Leong, 2006). According to SCT as well as the work by Wenzel mentioned above, multiracial individuals must self-categorize themselves as members of a minority racial group rather than a majority racial group to perceive themselves as eligible for or entitled to affirmative action-based resources. Indeed, international committees have explicitly recommended that, in cases where the minority status of an individual is in question, decisions regarding appropriateness for affirmative action be based on the self-categorization of the individual (Bossuyt, 2002).

The Current Study

In the current study, we used path analysis to test a model of racial self-categorization for minority-White multiracial participants (see Figure 1). Specifically, we predicted that *minority appearance* (i.e., looking like a typical racial minority member) and *minority connectedness* (i.e., feeling connected to other racial minority group members) would positively predict viewing the self as similar to the minority group and negatively predict viewing the

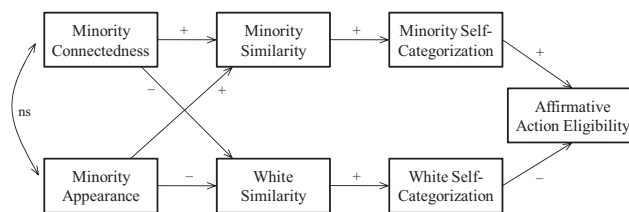


Figure 1. Hypothesized model.

self as similar to Whites. Perceived *minority similarity* would then positively predict self-categorization as minority and perceived *White similarity* would positively predict self-categorization as White. In addition, we hypothesized that the extent to which participants categorized themselves as minority (*minority self-categorization*) would positively predict comfort with applying for race-based scholarships (*affirmative action eligibility*), whereas a negative relationship was predicted for *White self-categorization*. To our knowledge, the current study represents the first attempt to examine predictors of racial minority similarity and self-categorization among multiracial individuals, as well as the practical consequences of minority self-categorization.

Method

Participants

The participants were 22 men and 80 women (total $N = 107$; five did not specify gender) recruited from Rutgers University introductory psychology courses, multiracial campus groups across the United States, and Facebook and Yahoo online student groups.¹ Ages ranged from 18 to 54 years ($M = 23.91$ years, $SD = 7.42$). The majority of participants had completed some college (51.4%), with some having completed bachelor's (15.0%), master's (17.8%) or doctoral degrees (1.9%). A small number of participants reported completing all (6.5%) or some (2.8%) of high school as their highest level of education. Five participants (4.7%) did not indicate their educational status. All participants indicated that they were of part-White biracial or multiracial descent. Participants ethnicities were as follows: 47 Black-White, 35 Asian-White, six Latino-White, five Native American-White, three Black-Latino-White, six Black-Native American-White, one Asian-Black-White, one Asian-Latino-White, one Asian-Black-Native American-White, one Asian-Latino-Native American-White, one Black-

¹ The recruitment announcement read as follows: "The Stigma, Health, and Close-Relationships Lab is recruiting multiracial people for a 40-50 minute survey. The purpose of this survey is to expand our knowledge of multiracial experiences and perspectives by conducting a survey on multiracial identities. Please take the time to fill out this survey if you are of multiracial descent." This survey was available to Rutgers University students in exchange for course credit in psychology if they were of multiracial descent. In addition, the study was posted at multiracial student organizations on Facebook and Yahoo. We identified these sites using the search engine on Facebook for terms such as *multiracial*, *mixed*, *hapa* student organizations. Swirl Boston also assisted in recruitment by e-mailing its members. In addition, former participants in multiracial research conducted by the laboratory were invited to participate in the survey.

Latino–Native American–White. At the end of the online survey, we asked participants to indicate how they had heard about the study: 16% were members of multiracial campus organizations (non-Rutgers), 18% were Rutgers University students, 22% received the link to the survey from online Facebook and Yahoo group advertisements, 30% reported receiving the link in an e-mail from a friend, and 14% of the sample did not answer the question.

Materials and Procedure

All materials were presented in an online survey hosted by surveymonkey.com. After indicating their informed consent, participants completed measures tailored to their minority ancestry (African American, Asian, Latino, or Native American) by asking participants whether one of their biological parents was African American, or Asian, and so forth and then branching them to identical questions that referenced their African American or Asian identity. Fourteen multiracial participants completed the measures for more than one minority ethnicity. To collapse across those participants, we used the ethnicity indicated as most important to create the general minority variables for those multiracial participants.² The final questions on the survey asked participants to indicate their age, gender, and highest education completed. The last page of the survey fully debriefed participants.

Minority connectedness. The degree to which participants felt connected to their ethnic community was assessed with four items: “I think that *Asian* people understand me better than other people,” “I feel that *Asian* people ‘get me,’” “*Asian* people and I get along very well,” and “I connect the best with people who are *Asian*.” All responses were indicated on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). The appropriate race/ethnicity was substituted based on participants’ ethnic minority background. A general minority connectedness variable was created by combining similar ethnicity-specific items (e.g., “I feel that *Asian* people ‘get me,’” and “I feel that *Black* people ‘get me.’”). For example, if participants indicated that they were part Black, their answers to the questions pertaining to their connectedness to the Black community would be used, whereas if participants indicated they were part Asian, their answers to the questions pertaining to their connectedness to the Asian community would be used. The four items were then averaged to create the Minority Connectedness Index (Cronbach’s alpha = .86).

Minority appearance. The extent to which participants felt that they looked like other members of their ethnic group was assessed with two items: “Most people can tell from my physical appearance that I am *Black*” and “I look *Black*.” Responses were indicated on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). As with all measures, the appropriate race/ethnicity was substituted based on participants’ ethnic background, and similar ethnicity-specific items were combined to construct the general minority appearance scale. The two items were averaged to create the Minority Appearance Index ($r = .81$).

Minority similarity. Participants completed two items that assessed their feelings of being similar to members of their ethnic group: “I am similar to other *Latinos*” and “I am a typical *Latino* person.” Participants indicated their agreement with the items on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Depending on each participant’s own ethnic background, the appropriate race/ethnicity was substituted in the questions. We combined the

ethnicity-specific items to create a general minority similarity scale ($r = .59$).

White similarity. Participants completed two items that assessed their feelings of being similar to other White individuals: “I am similar to other Whites” and “I am a typical White person.” Participants indicated their agreement with the items on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Scale reliability was adequate ($r = .55$).

Minority self-categorization. To measure the extent to which participants categorized themselves as members of their ethnic group, they were asked to indicate their agreement with the statement, “I am *Native American*” (substituting the appropriate race/ethnicity). Responses were indicated on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).³ As before, similar ethnicity-specific items were combined to create the general minority self-categorization item.

White self-categorization. To measure the extent to which participants categorized themselves as White, we asked them to indicate their agreement with the statement, “I am White.” Responses were indicated on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).

Affirmative action eligibility. Two items assessed participants’ perceived eligibility for affirmative action: “I feel comfortable applying for scholarships for *Asian* students,” and “I feel comfortable applying for awards intended for *Asian* students.” As before, the appropriate race/ethnicity was substituted for each participant, and similar ethnicity-specific items were averaged to create the general affirmative action eligibility scale. Responses were given on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Scale reliability was high ($r = .94$).

Results

Means and standard deviations for all variables are shown in Table 1. Zero-order correlations between all study variables are presented in Table 2. Confirmatory factor analysis performed on all items used in creating the study measures showed the existence of seven factors, with good model fit: $\chi^2(59) = 70.30$; comparative

² Participants rated the importance of each of their ethnic backgrounds on two items, “Being *Latino* is an important part of my self-image” and “My *Latino* background is an important part of who I am,” substituting the appropriate ethnicity. Items were rated on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*) and the mean of the two items was used to indicate the most important ethnicity for participants with more than one ethnic minority background.

³ Unlike the literature on nonmultiracial populations, we were interested in examining the extent to which multiracial individuals’ self-categorize themselves as, for example, “Black” or “Asian.” To our knowledge, no previous measure exists that taps this construct. Previous work on racial identification among minorities who are not multiracial often examines racial identification by measuring the extent to which an individual believes his or her minority identity is important and valuable (e.g., Collective Self Esteem; Luhtanen & Crocker, 1992; Sellers, Rowley, Chavous, Shelton, & Smith, 1997) or the extent to which an individual explores aspects of his or her racial identity (Multigroup Ethnic Identity Measure; Phinney, 1992). Instead, we created this measure to assess the extent of self-categorization in the minority group, which we felt was distinct from the perceived value of the minority group and the extent to which participants explored their minority group.

Table 1
Means (and Standard Deviations) for All Variables by Participant Ethnicity

Variable	Total (<i>N</i> = 107)	Asian (<i>n</i> = 36)	Black (<i>n</i> = 55)	Latino (<i>n</i> = 8)	Native American (<i>n</i> = 8)	<i>F</i>
Minority connectedness	4.22 (1.22)	4.08 (1.21)	4.40 (1.17)	3.66 (1.61)	4.25 (1.15)	1.13 ^a
Minority appearance	3.90 (1.74)	4.07 (1.98)	3.80 (1.63)	3.63 (1.90)	4.06 (1.21)	0.26 ^b
Minority similarity	3.40 (1.38)	3.36 (1.21)	3.37 (1.50)	3.63 (1.64)	3.50 (1.20)	0.10 ^a
White similarity	2.86 (1.42)	2.81 (1.37)	2.65 (1.25)	3.69 (2.14)	3.69 (1.56)	2.30 ^a
Minority self-categorization	5.14 (1.78)	5.22 (1.71)	4.93 (1.95)	5.38 (1.41)	6.00 (0.76)	0.96 ^a
White self-categorization	4.18 (1.93)	4.44 (1.96)	3.87 (1.89)	4.13 (2.03)	5.13 (1.73)	1.35 ^a
Affirmative action eligibility	4.57 (1.87)	4.43 (1.85)	4.70 (1.82)	4.88 (2.59)	4.06 (1.78)	0.41 ^a

Note. Responses were given on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).

* $p < .05$.

^a $df = F(3,103)$. ^b $df = F(3,102)$.

fit index = 0.99; normed fit index = 0.96; nonnormed fit index = 0.99; root mean square error of approximation = .04, 90% confidence interval [.00, .08]. We therefore felt confident that the measures designed for the current study, although related, represented distinct constructs.

We used path analysis to assess hypothesized relationships between minority connectedness and appearance, minority and White similarity, minority and White self-categorization, and affirmative action eligibility. Analyses were conducted with EQS 6.1 software using maximum likelihood estimation, and the model was specified such that cases with missing data were deleted, which resulted in two cases being removed from analyses. According to past research on model fit (see Hu & Bentler, 1999), good fitting models have comparative fit index and nonnormed fit index values that exceed 0.95.

Hypothesized Model

A path model was specified with the hypothesized paths illustrated in Figure 1.⁴ Good practice is to include at least five cases per estimated model parameter (Bentler & Chou, 1987). The hypothesized model includes 16 parameter estimates (eight paths, three covariances, and five error variances), necessitating a sample of at least 80 participants. The hypothesized model fit the data well (see Figure 2 and Table 3). As predicted, both minority connectedness and minority appearance significantly positively predicted feelings of minority similarity. Minority connectedness negatively predicted White similarity, whereas minority appearance was unrelated. Also consistent with our hypotheses, minority similarity positively predicted minority self-categorization, and White similarity positively predicted White self-categorization. Only minority self-categorization positively predicted affirmative action eligibility; White self-categorization was unrelated.

Alternative Models

Because the data are correlational, causal paths cannot be determined. Therefore, other model specifications may fit the data better than or equally as well as the hypothesized model. In particular, SCT might also predict that after self-categorizing as minority, individuals experience a depersonalization, whereby they view themselves as very similar to other members of the group, and may feel more connected to the group as well (Hogg, 2004; Hornsey, 2008; Postmes & Spears, 1998; Tajfel, 1981; Turner, 1991). Thus, minority similarity, minority appearance, and

minority connectedness could be viewed as products rather than predictors of minority self-categorization. To test this possibility, we computed alternative Model A (see Figure 3). This model did not fit the data well (see Table 3). In an additional test of SCT, we constructed an alternative model very similar to alternative Model A, but with minority appearance as a predictor of minority and White self-categorization (alternative Model B; see Figure 3). Because physical appearance is a relatively stable, observable characteristic, we reasoned that it may not be affected by minority self-categorization, unlike minority connectedness, which could vary according to self-categorization. Alternative Model B also did not fit the data the data well (see Table 3). Because the alternative models and the hypothesized model are not nested, a chi-square difference test cannot be conducted to compare the fit of the models. However, in cases of nonhierarchical models, fit comparisons can be made using the Akaike information criterion (AIC; Kline, 2005). For a set of models, the model with the lowest AIC value has a better fit to the data. As can be seen in Table 3, the hypothesized model has a lower AIC value (−10.98) than both alternative models, suggesting that the hypothesized model is a superior fit to the data.

Discussion

In general, the results supported our hypotheses. Consistent with our predictions, the more minority–White biracial participants felt connected to their minority group and believed their appearance to be similar to other minority individuals, the more they viewed themselves as similar to other members of that minority group. In addition, participants who saw themselves as more similar to minority group members were more likely to categorize themselves as minority. The current data also show that categorizing oneself as minority positively predicted perceived eligibility for affirmative action.

New to the current research, we have shown that for multiracial individuals, who cannot be assumed to self-categorize with a given racial group but instead have multiple category options within an indelible domain, viewing themselves as more similar to members of their minority racial group predicts self-categorizing as minority. In addition, our model contributes to the multiracial literature

⁴ Because of potential shared variance, the error variances for minority similarity and White similarity and minority self-categorization and White self-categorization were allowed to covary, $r_s = .33, .49$, respectively, $p < .05$.

Table 2
Correlation and Standardized Residual Matrix for All Study Variables

Variable	1	2	3	4	5	6	7
1. Minority connectedness	—	.00	.00	.00	.07	.04	.06
2. Minority appearance	.16	—	.00	.00	-.07	-.07	.04
3. Minority similarity	.61**	.23*	—	.00	.06	.12	.11
4. White similarity	-.46**	-.16	-.06	—	.08	.04	-.02
5. Minority self-categorization	.34**	.03	.50**	.06	—	.08	.02
6. White self-categorization	-.17	-.14	.09	.49**	.45**	—	.03
7. Affirmative action eligibility	.18	.08	.28**	-.07	.37**	.11	—

Note. Correlations are below the diagonal, standardized residuals are above.
* $p < .05$. ** $p < .01$.

by testing two sources of minority similarity, demonstrating that both physical appearance and social connectedness to the minority group predict perceptions of overall similarity.

Our results also indicate an important difference in the relative strengths of connectedness and appearance to minority similarity. Research on both prototypicality and stereotypes suggests that the phenotypic appearance of an individual (e.g., skin tone) should be a primary indicator of an individual's similarity to a typical group member (Garcia Coll et al., 1996; Maddox & Gray, 2002). However, our results suggest that the appearance-similarity relationship is weaker than that between connectedness and similarity. The reasons for this may be threefold. First, much of the previous literature on appearance focuses on the perceiver perspective, whereas *self-rated* minority similarity may rely less on visual, phenotypic cues than when rating others because more information is available for self-relevant versus other-relevant judgments. Second, mixed-race individuals may specifically rely less on phenotypic markers in determining either minority similarity or minority self-categorization. Multiracial individuals often appear racially ambiguous and do not always exhibit physical indicators common to their component races (Root, 2003). Therefore, they may understand that not all members of a race show similar physical features, and hence may rely less on appearance when considering racial or minority similarity. Finally, we may simply have measured connectedness more effectively than appearance, allowing for evidence of stronger relationships with other study variables.

The present study also demonstrates that self-categorization as a minority may have important practical consequences. Multiracial people may perceive themselves as entitled to minority scholarships or appropriate for affirmative action-based resources and benefits reserved exclusively for ethnic minorities only if they self-categorize as minority. Although all of our participants possessed at least one minority background, the extent to which they

categorized themselves as minority predicted viewing themselves as eligible for minority resources such as affirmative action. Thus, the present research applies Wenzel's (2000) work to category-based entitlements for minority groups, showing that participants who self-categorized as minority also viewed themselves as eligible for affirmative action. Previous research would suggest that the link between self-categorization and category-based entitlements is purely cognitive (i.e., "I am a group member, and therefore I am entitled to that group's resources"; Wenzel, 2000). It is also possible that social factors are at play in the form of experiences with others. Multiracial individuals who categorize themselves as more White may interact more frequently with Whites and others who may view affirmative action as something reserved solely for minorities and not multiracial people (Sanchez & Bonam, 2009). These experiences may lead multiracial individuals to "take themselves out of the running" for affirmative action-based resources. Regardless of the reason multiracial individuals' self-categorization as minority predicts perceived eligibility for affirmative action, the findings of the current study have real-world implications for biracial and multiracial individuals who qualify for affirmative action, yet may not receive these benefits because they do not view themselves as sufficiently minority. Multiracial individuals whose appearances are more minority prototypical or who feel more connected to the minority community are more likely to view themselves as eligible for programs aimed specifically at ethnic minorities because they are more likely to self-categorize as minority.

Limitations and Future Directions

The main limitation of the current study is its correlational design. Although path analysis can be used to infer causal pathways and test between them, we cannot determine causality without experimentation. In the present study, we sampled only minority-White multiracial individuals. Therefore, we cannot address the effect of choosing one particular minority racial identity over another minority identity in minority-minority mixed-race individuals. Does choosing to identify as one racial minority still predict perceived eligibility for minority-based scholarships, or does the relationship only hold true when the other identity choice is a participant's White racial background? Future research should test the model presented in the current study on various multiracial populations to determine its utility across populations. In addition, because of the gender subsample size, we were unable to conduct meaningful between-gender comparisons. Future research should

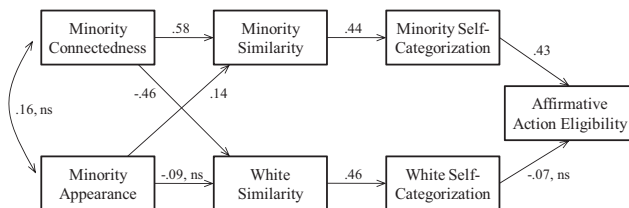


Figure 2. Results of path analysis testing hypothesized model. Standardized coefficients are presented. β values are significant at $p < .05$ unless noted otherwise.

Table 3
Fit Statistics for All Models Tested

Model	χ^2	df	p	CFI	NFI	NNFI	AIC
Hypothesized	9.02	10	.53	1.00	0.96	1.00	-10.98
Alternative A	28.95	10	.00	0.90	0.78	0.86	8.95
Alternative B	34.69	12	.00	0.88	0.78	0.83	10.69

Note. CFI = comparative fit index; NFI = normed fit index; NNFI = nonnormed fit index; RMSEA = root mean square error of approximation; AIC = Akaike information criterion.

test whether the processes found in the current study are the same for both men and women.

The present study was administered online, providing many advantages for data collection, as well as some limitations. The most immediate advantage was that we were able to get a relatively large sample of minority-White multiracial participants. By using online sampling, we were able to obtain a more ethnically and geographically diverse sample, which provides greater generalizability of our findings than we would typically have from subject pool samples.⁵ Conversely, online sampling procedures may limit the generalizability of the results to multiracial samples who actively seek online communities. We recruited participants from multiracial campus groups as well as Facebook and Yahoo online groups aimed at multiracial individuals. Therefore it is possible that the people who viewed our recruitment ads may have been more focused on their racial identities than other multiracial individuals, and those who chose to participate may have been particularly interested in exploring their racial identities. Although we acknowledge this limitation of our sampling strategy, we maintain that the advantage of obtaining a sample of minority-White multiracial participants in which to measure these important constructs relating to self-perceived minority similarity and minority self-categorization outweighs the disadvantages of the recruitment strategy.

The present study is unique because we investigated sources of self-perceived racial identity among multiracial individuals; however, others' perceptions also play a role in racial self-categorization. Self-categorization does not occur in a vacuum. Instead, categorization is a sociopsychological process. Indeed, research on multiracial individuals' reflected appraisals suggests

that self-perceptions of appearance are influenced by others' appraisals of their appearance (Khanna, 2004). Future research should include others' perceptions as well as self-perceptions in predicting racial self-categorization among multiracial individuals.

Conclusions

The present research tested a unique case of SCT in a sample of multiracial participants, for whom multiple racial category options exist within the so-called indelible domain of race. We have shown that for these individuals, both affective (connectedness to the minority community) and observable (physical appearance) characteristics serve as sources of perceived similarity to the minority racial group and self-categorization as minority. In addition, for mixed-race people, self-categorizing as minority may lead to practical benefits in the form of perceived eligibility for minority resources or affirmative action. Much of the multiracial literature is heavily influenced by sociological and qualitative methods or based on assumptions drawn from monoracial populations. The present model represents an important contribution by explicitly testing the predictions of SCT in a multiracial sample.

⁵ It should be noted that this article was written with conceptualizations of race and ethnicity that may be specific to the United States. For example, our definition of Black or Latino may be different from that of other countries. Although we propose that the processes tested in the hypothesized model may be consistent across cultures, data from the present study can be generalized only to other U.S. samples.

References

Ashmore, R., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin, 130*, 80-114.

Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research, 16*, 78-117.

Blair, I. V., Judd, C. M., Sadler, M. S., & Jenkins, C. (2002). The role of Afrocentric features in person perception: Judging by features and categories. *Journal of Personality and Social Psychology, 83*, 5-25.

Bossuyt, M. (2002). *Prevention of discrimination: The concept and practice of affirmative action*. Final report submitted by Marc Bossuyt, Special Rapporteur, in accordance with Sub-Commission Resolution 1998/5, dated 17 June 2002, E/CN. 4/Sub. 2/2002/21, para. 6.

Broman, C. L., Neighbors, H. W., & Jackson, J. S. (1988). Racial group identification among Black adults. *Social Forces, 67*, 146-158.

Brown, J. S., Hitlin, S., & Elder, J. H., Jr. (2006). The greater complexity of lived race: An extension of Harris and Sim. *Social Science Quarterly, 87*, 411-431.

Brunsma, D. L., & Rockquemore, K. A. (2001). The new color complex:

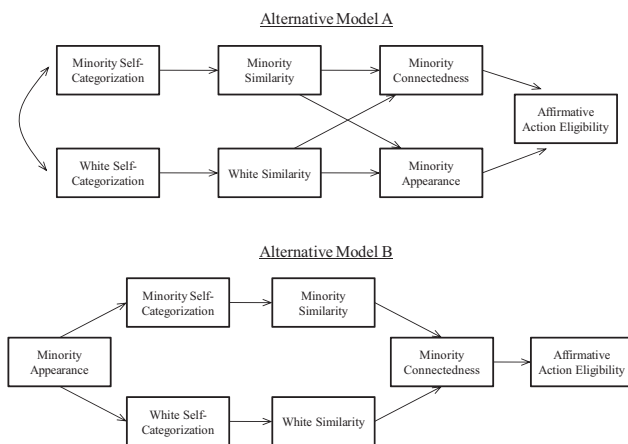


Figure 3. Alternative models tested.

- Appearances and biracial identity. *Identity: An International Journal of Theory and Research*, 3, 29–52.
- Crosby, F. J. (1994). Understanding affirmative action. *Basic and Applied Social Psychology*, 15, 13–41.
- Garcia Coll, C., Lamberty, G., Jenkins, R., Pipes McAdoo, H., Crnic, K., Wasik, B. H., & Vazquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67, 1891–1914.
- Harris, D. R., & Sim, J. J. (2002). Who is multiracial? Assessing the complexity of lived race. *American Sociological Review*, 67, 614–627.
- Hogg, M. A. (2004). Social categorization, depersonalization, and group behavior. In M. B. Brewer & M. Hewstone (Eds.), *Self and social identity* (pp. 203–231). Malden, MA: Blackwell.
- Holguin, S., McQuiston, D. E., MacLin, O. H., & Malpass, R. S. (2000, April). *Racial classification of racially ambiguous faces*. Poster presented at the Western Psychological Association Annual Meeting, Portland, OR.
- Hornsey, M. J. (2008). Social identity theory and self-categorization theory: A historical review. *Social and Personality Psychology Compass*, 2, 204–222.
- Hornsey, M. J., & Hogg, M. A. (2000). Assimilation and diversity: An integrative model of subgroup relations. *Personality and Social Psychology Review*, 4, 143–156.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal*, 38, 673–703.
- Khanna, N. (2004). The role of reflected appraisals in racial identity: The case of multiracial Asians. *Social Psychology Quarterly*, 67, 115–131.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford Press.
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago.
- Lee, J., & Bean, F. D. (2004). America's changing color lines: Immigration, race/ethnicity, and multiracial identification. *Annual Review of Sociology*, 30, 221–242.
- Leong, N. (2006, March 13). *Multiracial identity and affirmative action*. Berkeley Electronic Press, Working Paper 1126. Retrieved from <http://law.bepress.com/expresso/eps/1126>
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302–318.
- Maddox, K. B., & Gray, S. A. (2002). Cognitive representations of Black Americans: Reexploring the role of skin tone. *Personality and Social Psychology Bulletin*, 28, 250–259.
- Mehra, A., Kilduff, M., & Brass, D. J. (1996). At the margins: A distinctiveness approach to the social identity and social networks of under-represented groups. *Academy of Management Journal*, 41, 441–452.
- Mervis, C. B., & Rosch, E. (1981). Categorization of natural objects. In M. R. Rosenzweig & L. W. Porter (Eds.), *Annual review of psychology* (Vol. 32, pp. 89–115). Palo Alto, CA: Annual Reviews.
- Phinney, J. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with adolescents and young adults from diverse groups. *Journal of Adolescent Research*, 7, 156–176.
- Phinney, J. S., & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*, 54, 271–281.
- Postmes, T., & Spears, R. (1998). Deindividuation and antinormative behavior: A meta-analysis. *Psychological Bulletin*, 123, 238–259.
- Quintana, S. M., & Scull, N. C. (2009). Latino ethnic identity. In F. A. Villarruel, G. Carlo, J. M. Contreras Grau, et al. (Eds.), *Handbook of U.S. Latino psychology: Developmental and community-based perspectives* (pp. 81–98). Thousand Oaks, CA: Sage.
- Renn, K. A. (2004). *Mixed race students in college: The ecology of race, identity, and community on campus*. Albany: SUNY Press.
- Rockquemore, K. A., & Brunson, D. L. (2002). Socially embedded identities: Theories, typologies, and processes of racial identity among Black–White biracials. *The Sociological Quarterly*, 43, 335–356.
- Root, M. P. P. (2003). Multiracial families and children. In J. A. Banks & C. A. McGee Banks (Eds.), *Handbook of research on multicultural education* (pp. 110–124). San Francisco: Jossey-Bass.
- Rosch, E. (1975). Cognitive representations of semantic categories. *Journal of Experimental Psychology: General*, 104, 192–234.
- Russell, K., Wilson, M., & Hall, R. E. (1992). *The color complex: The politics of skin color among African Americans*. New York: Harcourt Brace Jovanovich.
- Sanchez, D. T., & Bonam, C. M. (2009). To disclose or not to disclose biracial identity? The effect of biracial disclosure on perceiver evaluations and target responses. *Journal of Social Issues*, 65, 129–149.
- Sanchez, D. T., Shih, M., & Garcia, J. A. (2009). Juggling multiple racial identities: Malleable racial identification and well-being. *Cultural Diversity & Ethnic Minority Psychology*, 15, 243–254.
- Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. (1997). Multidimensional Inventory of Black Identity: Preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, 73, 805–815.
- Smith, E. R., & Zárate, M. A. (1990). Exemplar and prototype use in social categorization. *Social Cognition*, 8, 243–262.
- Smith, E. R., & Zárate, M. A. (1992). Exemplar-based model of social judgment. *Psychological Review*, 99, 3–21.
- Smith, S. S., & Moore, M. R. (2000). Intra-racial diversity and relations among African-Americans: Closeness among Black students at a predominantly White university. *American Journal of Sociology*, 106, 1–39.
- Tajfel, H. (1981). Social stereotypes and social groups. In J. C. Turner & H. Giles (Eds.), *Intergroup behaviour* (pp. 144–167). Oxford, England: Blackwell.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.
- Turner, J. C. (1991). *Social influence*. Milton-Keynes, England: Open University Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. New York: Blackwell.
- Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, 20, 454–463.
- Washington, J. (2008, December 14). AP: Many insisting that Obama is not Black. *The Huffington Post*. Retrieved from http://www.huffingtonpost.com/2008/12/14/ap-many-insisting-that-ob_n_150846.html
- Wenzel, M. (1996, July). *Identity and the quest for justice: On relevance of inputs*. Paper presented at the 11th general meeting of the European Association of Experimental Social Psychology, Gmunden, Austria.
- Wenzel, M. (1997). *Soziale Kategorisierungen im Bereich distributive Gerechtigkeit* [Social categorizations in the realm of distributive justice]. Münster, Germany: Waxman.
- Wenzel, M. (2000). Justice and identity: The significance of inclusion for perceptions of entitlement and the justice motive. *Personality and Social Psychology Bulletin*, 26, 157–176.
- Wenzel, M. (2004). A social categorisation approach to distributive justice. *European Review of Social Psychology*, 15, 219–257.