

Conceptualization and Measurement of Ethnic Identity: Current Status and Future Directions

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In this article, the authors examine the conceptualization and measurement of ethnic identity as a multidimensional, dynamic construct that develops over time through a process of exploration and commitment. The authors discuss the components of ethnic identity that have been studied and the theoretical background for a developmental model of ethnic identity. The authors review research on the measurement of ethnic identity using the Multigroup Ethnic Identity Measure (J. Phinney, 1992) and present a revised version of the measure. The authors conclude with a consideration of the measurement issues raised by J. E. Helms (2007) and K. Cokley (2007) and suggestions for future research on ethnic identity.

Keywords: ethnic identity, measurement, Multigroup Ethnic Identity Measure

Ethnic identity is many faceted. This is made clear in the special issue of which this article is a part. But recognizing that ethnic identity has many facets is merely a start to understanding it. Ethnic identity derives from a sense of peoplehood within a group, a culture, and a particular setting. Yet ethnic identity is not merely knowledge and understanding of one's ingroup affiliations, even as such insights and comprehension are part of it. The achievement of a secure ethnic identity derives from experience, but experience is not sufficient to produce it. Because one's ethnic identity is constructed over time, the actions and choices of individuals are essential to the process. Ethnic identity is distinct in some ways from other group identities, such as racial identity, but it also shares aspects of both personal and group identities.

Our purpose in this article was to examine the conceptualization and measurement of ethnic identity from social psychological and developmental perspectives. We first review the various dimensions of ethnic identity that have been proposed in the literature. We then discuss the theoretical and empirical basis for understanding ethnic identity as a developmental process. We review research on the measurement of ethnic identity based on the widely used Multigroup Ethnic Identity Measure (MEIM, Phinney, 1992; Roberts et al., 1999), discuss recent measurement research that has led to a revision of the MEIM, and present a revised version of the MEIM. We conclude with a discussion of issues that might be profitably considered in future ethnic identity research, with a

consideration of the ideas and recommendations offered by Helms (2007) and Cokley (2007). In keeping with the focus of the special issue, we discuss ethnic identity with reference to ethnic minorities in the United States.

Components of Ethnic Identity

Any theory that purports to be scientific should account for the extant evidence—ideally all of the evidence. It should also give indications of where new evidence could be sought that could test the theory and lead to modifications. A clear theoretical model, therefore, is a necessary foundation for all empirical research. Both theoretical evidence and empirical evidence suggest that ethnic identity is a multifaceted construct that includes a number of dimensions (e.g., Ashmore, Deaux, & McLaughlin-Volpe, 2004; Romero & Roberts, 2003). These dimensions tend to be positively correlated (Lee & Yoo, 2004), but the available empirical evidence is equivocal as to what extent different dimensions of ethnic identity constitute a single overarching concept or distinct aspects that need to be considered separately. Furthermore, ethnic identity is dynamic; it changes over time and context and must therefore be considered with reference to its formation and variation (Phinney, 2003). Any attempt to understand ethnic identity must be based on an examination of current theories and their supporting evidence. Both social psychological and developmental perspectives provide important insights into ethnic identity.

Much of the research on ethnic identity has been based on the study of group identity by social psychologists (e.g., Tajfel & Turner, 1986). From this perspective, ethnic identity is an aspect of social identity, defined by Tajfel (1981) as “that part of an individual's self-concept which derives from [his] knowledge of [his] membership of a social group (or groups) together with the value and emotional significance attached to that membership” (p. 255). This definition suggests the multidimensionality of the construct. In a recent review from this tradition, Ashmore et al. (2004) attempted to identify the major components of group (or collective) identity and provided a useful framework for understanding

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ethnic identity in its broadest sense. The review is largely an atheoretical overview of existing empirical evidence. However, it is helpful as a basis for examining aspects of ethnic identity. In this section, we consider components of ethnic identity that have been identified by Ashmore and colleagues as well as other researchers. Specifically, we discuss self-categorization, commitment and attachment, exploration, behavioral involvement, ingroup attitudes (private regard), ethnic values and beliefs, importance or salience of group membership, and ethnic identity in relation to national identity, and we consider their theoretical and empirical implications.

Self-Categorization and Labeling

Self-categorization, that is, identifying oneself as a member of a particular social grouping, is considered by Ashmore et al. (2004) to be a basic element of group identity. Measurement of ethnic identity must begin with verifying that the individuals being studied in fact self-identify as members of a particular group. This can be done either with open-ended questions or with lists that are appropriately inclusive (Phinney, 1992). For this purpose, it does not matter whether the label is an ethnic group or a racial group (regardless of how these terms are defined and whether they are broad or narrow in scope). Individuals may use several different self-labels or categories, depending on the situation; for example, the same person might use the terms Chinese, Chinese American, Asian, or Asian/Pacific Islander; or alternatively, Mexican American, Latino, Hispanic, or even Mayan. It has been well documented that individuals use different labels at different times (Portes & Rumbaut, 2001). The label one uses is influenced to some extent by the context and by how one is seen by others, so people cannot easily use labels that are at variance with their appearance.

It is often necessary to categorize individuals by ethnic or racial group in order to study differences across groups. The self-categorization of research participants can be obtained by both open-ended questions and checklists. Because these may differ, it is also useful to ask individuals to report the background (ethnic, racial, or national) of both parents. This procedure allows for the identification of ethnically mixed individuals who may identify with only one group, and it can also help clarify a respondent's specific background, for example, in the case of a respondent who considers herself Latina, while both parents call themselves Mexican. Researchers can then make informed decisions about the criteria to use in categorizing participants for particular purposes. Nevertheless, the category or label itself is of less importance psychologically than the meaning of the category for the individual. For example, research has shown that the strength of ethnic identification makes a greater contribution to academic achievement than do the ethnic labels used among adolescents from diverse backgrounds (Fuligni, Witkow, & Garcia, 2005).

Commitment and Attachment

A commitment, or sense of belonging, is perhaps the most important component of ethnic identity. Attachment or affective commitment was included by Ashmore et al. (2004) as a key component of group identity. The term *commitment* has been used

in both social psychology (e.g., Ellemers, Spears, & Doosje, 1999) and developmental psychology (Roberts et al., 1999) to refer to a strong attachment and a personal investment in a group. When the term *ethnic identity* is used in everyday language, what is most often meant, among the various meanings of the construct, is this idea of commitment. It should be noted that the strength of commitment is not necessarily related to the content of the identity, that is, to the specific attitudes or worldviews held by the individual (Cokley, 2005).

Furthermore, according to developmental models (Marcia, 1980; Phinney, 1989, 1993), commitment alone does not define a confident, mature, achieved identity; that is, commitment may result from identifications with one's parents or other role models that have not been fully internalized by the individual. Such commitments are called *foreclosed*; individuals who are foreclosed typically lack a clear understanding of the meaning and implications of their commitment. In contrast, the secure and stable sense of self that defines an achieved identity reflects knowledge of and an understanding about ethnicity that is based on a process of exploration.

Exploration

Exploration, defined as seeking information and experiences relevant to one's ethnicity, was not discussed by Ashmore et al. (2004), but it is essential to the process of ethnic identity formation, as discussed below in the section on the development of ethnic identity.

Exploration can involve a range of activities, such as reading and talking to people, learning cultural practices, and attending cultural events. Although exploration is most common in adolescence, it is an ongoing process that may continue over time, possibly throughout life (Phinney, 2006), depending on individual experiences. Exploration is important to the process, because without it, one's commitment may be less secure and more subject to change with new experiences.

Ethnic Behaviors

Ethnic behaviors have been included in many measures of ethnic identity, and ethnic practices and social interactions were included in the original version of the MEIM (Phinney, 1992). Ethnic identity measures developed for specific groups (e.g., Felix-Ortiz, Newcomb, & Myers, 1994) have generally included behaviors such as speaking the language, eating the food, and associating with members of one's group. Knowledge and use of an ethnic language, in particular, has been considered by some researchers to be a key aspect of ethnic identity. Behaviors are actions that can express an identity, and ethnic behaviors are generally correlated with other aspects of ethnic identity. However, an ethnic identity is an internal structure that can exist without behavior. Behaviors associated with one's culture or ethnic group have been studied as an aspect of acculturation, as distinct from ethnic identity (Berry, Phinney, Sam, & Vedder, 2006). For conceptual clarity, behaviors should be considered separately from identity. Research results are likely to be more parsimonious if ethnic behaviors are included as discrete measures in studies of ethnic identity, so that results can

be analyzed separately, to distinguish the implications of identity per se and the associated behaviors.

Evaluation and Ingroup Attitudes

Theoretically, a strong sense of belonging to a group is assumed to include feeling comfortable with one's ethnicity and having positive feelings about one's group membership (Tajfel & Turner, 1986). In the literature on group identity and, specifically, racial identity, the term *private regard* has been used to refer to positive ingroup attitudes (e.g., Luhtanen & Crocker, 1992; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). Positive attitudes about one's group and oneself as a group member are important because members of minority and lower status groups are subject to discrimination that may lead to negative ingroup attitudes (Tajfel, 1978). Virtually all ethnic minority groups have been subjected to discrimination, and negative ingroup attitudes, such as the desire to belong to the dominant group, have been noted by members of most minority groups (Phinney, 1989). A developmental perspective suggests that the formation of an achieved ethnic identity based on learning about one's ethnic group and making a commitment to the group leads to the rejection of negative views based on stereotypes (Phinney, 1989). As Cross and Hagen-Smith (2001) pointed out, many Black youths develop identities with positive connotations about being Black. An achieved ethnic identity implies that attitudes about one's group have been examined and evaluated independently and are not simply the internalization of what other people think. Empirically, a number of studies (Phinney, Cantu, & Kurtz, 1997; Roberts et al., 1999) have found positive attitudes such as pride and feeling good about one's group to be part of an achieved ethnic identity. Positive feelings for one's group have been shown to predict happiness on a daily basis (Kiang, Yip, Gonzales, Witkow, & Fuligni, 2006).

Umaña-Taylor and colleagues (Umaña-Taylor, Yazedjian, & Bamaca-Gomez, 2004) have suggested that evaluation of one's group, either positive or negative, is a distinct and independent component of ethnic identity. Thus, it is assumed that one can be committed to one's group and yet have negative feelings about the group and wish to belong to another group. In a factor analysis, Umaña-Taylor and colleagues found the evaluation factor to be distinct from ethnic identity exploration and commitment. However, the interpretation of this finding is not clear because the evaluation items were all negatively worded, raising questions of method variance. Furthermore, the proportion of cases in which individuals reported both an achieved identity and a negative evaluation was very low, even when negative was defined as scores below 20.5 on an affirmation scale ranging from 6 to 24. Further research with positively worded attitude items is needed to explore whether positive attitudes are distinct from ethnic identity achievement.

Values and Beliefs

Many measures of ethnic identity have been developed for specific groups and have included values and beliefs specific to a group (e.g., Felix-Ortiz et al., 1994). The assessment of values and beliefs requires the use of content that differs across groups; for example, familism for Latinos, filial piety for Asians, and Afro-

centric values for African Americans. Research with such items suggests that they are strongly correlated with commitment or a sense of belonging. Values are important indicators of one's closeness to the group. However, they are limited in that there is not always a group consensus on what values and beliefs should be included in a scale. Even when there is agreement, such measures can be used only with particular groups and cannot be used for comparisons across groups. In addition, values and beliefs may have different correlates from ethnic identity per se, that is, from a committed sense of belonging to one's group. Therefore, greater clarity can be obtained by assessing separately one's values and one's sense of belonging.

Importance and Salience

There is wide variation in the importance attributed to one's ethnic identity across individuals and groups (Phinney & Alipuria, 1990), with ethnic minority group members attributing greater importance to their ethnicity than do members of the dominant majority. There is also variation in the salience of ethnic identity over time. Yip and Fuligni (2002), for example, reported that ethnic identity salience, assessed on a daily basis, was higher for those with a strong ethnic identity. These authors also showed that salience was associated with positive well-being on a daily basis for those with high ethnic identity but not for those low in ethnic identity. Further research on such variation (both over time and across individuals) would be useful in determining how these variables are related to other aspects of ethnic identity. One would predict, for example, that ethnic identity is more stable in individuals with a secure, achieved identity than in those who have thought little about the issues and have not made a clear commitment.

Ethnic Identity and National (or American) Identity

For ethnic identity to be fully understood, it is best considered in relation to another prominent group identity of most minority group members, namely their identity as part of their national culture or, in the United States, their American identity. The relationship between ethnic and American (or more generally, national) identity has been debated for decades by scholars of acculturation, with early researchers having suggested that the two identities were necessarily negatively correlated, whereas in more recent views, researchers have assumed that they are independent and may be positively or negatively correlated or uncorrelated (see Berry, 2003, for a review). There is substantial research evidence for the latter view. A large international study of over 5,000 immigrant adolescents, ages 13–18 years, from 26 cultural backgrounds in 13 immigrant-receiving countries (United States, Canada, Australia, New Zealand, 8 European countries, and Israel) independently assessed ethnic identity and national identity (Berry et al., 2006). The results showed that, across the countries of settlement, correlations between the two identities ranged widely, from .32 to $-.28$, with many near 0.

In addition to the country level differences, the study (Berry et al., 2006) showed wide variation across individuals. Cluster analysis with 13 identity and acculturation variables (ethnic and national identities, ethnic and national language proficiency and

usage, ethnic and national peer contacts, acculturation attitudes, and cultural values) indicated four distinct acculturation profiles. The largest number of immigrant youths, about a third, was in the integration profile, in which both identities were strong and positively correlated. A second group, including almost a quarter of the sample, was in the ethnic profile, with a strong ethnic identity and weak national identity. A third group, with less than a fifth of the sample, was in the national profile, characterized by a weak ethnic identity and a strong national identity. A fourth group, termed the diffuse profile, was low on both identities. The four profiles had different correlates in terms of adaptation outcomes; the integration profile was consistently associated with more positive adaptation. The results show that a strong ethnic identity does not necessarily imply a weak national identity and vice versa. Rather, there are varying patterns of relationship between the two identities across individuals. Furthermore, the results suggest that ethnic identity does not operate alone; rather, its implications vary, depending on individuals' identification with their country of residence.

Other research has shown that the relationship between ethnic and national identities also differs across ethnic groups. For African Americans in particular, attitudes toward and identification with America show wide variation. The classic statement by DuBois (1903/1989) represents one view: "One ever feels his two-ness,—an American, a Negro; two souls, two thoughts, two unreconciled strivings; two warring ideals in one dark body" (p. 5). A contrasting view is found in a study of African American and Mexican American adolescents (Phinney & Devich-Navarro, 1997). Many adolescents reported feeling part of both cultures, with statements such as, "It doesn't seem like two cultures [Black and American]"; "I see them as one"; and "Some people think of themselves as just Black; I think of myself as Black American."

Summary

An examination of ethnic identity in terms of its dimensions or component parts provides a framework for comparing it with other types of group identity. In particular, these components could serve as a starting point for exploring parallels between the constructs of ethnic and racial identity. A full discussion of this topic is beyond the scope of this article; however, a number of parallels can be suggested. Both racial and ethnic identities involve a sense of belonging to a group and a process of learning about one's group. Both identities are associated with cultural behaviors and values, with attitudes toward one's own group, and with responses to discrimination. Both vary in importance and salience across time and context. Parallels could be explored between the acculturation profiles described earlier and the ideological categories identified in the racial identity literature (e.g., Sellers, Smith, Shelton, Rowley, & Chavous, 1998).

Nevertheless, racial and ethnic identities differ widely in the ways they have been defined and studied. As Helms (2007) noted, the study of racial identity has focused on responses to racism, and racial identity measures assess experiences related to internalized racism. In contrast, ethnic identity has been studied largely with reference to one's sense of belonging to an ethnic group, that is, a group defined by one's cultural heritage, including values, traditions, and often language. Racial identity research has been carried

out predominantly in Black and, to a lesser extent, White samples (Helms, 1990) and typically with college students, whereas ethnic identity research has generally been carried out with adolescents and college students from a variety of ethnic and racial groups (Phinney, 1992). The literature dealing with these two types of identity is quite divergent, with only limited efforts to examine them together (e.g., Cokley, 2005; Yip, Seaton, & Sellers, 2006). For these reasons, this article does not deal with racial identity. Rather, for the remainder of the article, we focus on the developmental perspective that has been widely used in the study and measurement of ethnic identity.

The Development of Ethnic Identity

The range of components of ethnic identity that have been identified raise the question of measurement: Is there a single overarching construct of ethnic identity, or are there various components that should be assessed and studied separately? In past research, the answer has been somewhat arbitrary, with researchers selecting aspects of the concept to assess for particular purposes or adding new elements to answer their research questions (e.g., Altschul, Oyserman, & Bybee, 2006; Yip & Fuligni, 2002). We propose that a developmental approach, which focuses on the process of ethnic identity formation, can provide a theoretically and psychometrically sound basis for measuring the core aspects of ethnic identity.

The psychological study of ethnic identity development has its roots in the ego identity model of Erik Erikson (1968). For Erikson, identity refers to a subjective feeling of sameness and continuity that provides individuals with a stable sense of self and serves as a guide to choices in key areas of one's life. Identity is not something that individuals automatically have. Rather, an identity develops over time, beginning in childhood, through a process of "reflection and observation" (Erikson, 1968, p. 22) that is particularly salient during adolescence and young adulthood but may continue through adulthood and is expected to lead to a resolution or an achieved identity. An achieved identity combines childhood identifications, individual interests and talents, and the opportunities afforded by the context in a unified self-structure. It is associated with numerous indicators of psychological well-being. Not all individuals achieve a stable identity, however, and the failure to do so results in role confusion and the inability to make progress toward meaningful commitments.

The empirical study of personal identity was advanced by James Marcia (1980), who conceptualized identity formation as involving two processes, exploration of identity issues and commitment in relevant identity domains. These two processes can be assessed independently, and they can be used together to define four identity statuses. Individuals may show evidence of having engaged in neither process, indicating identity diffusion. If they have made a commitment without having explored, they are in identity foreclosure. Those in the process of exploring without having made a commitment are in a moratorium period. Individuals who have explored key identity issues and made commitments are said to have an achieved identity. Marcia focused on personal identity, involving areas of choice in the formation of an identity, such as occupational and political identities, and did not study ethnic identity.

Like a personal identity, an ethnic identity refers to a sense of self, but it differs in that it involves a shared sense of identity with others who belong to the same ethnic group. Ethnic identity is also an important contributor to an individual's well-being; individuals derive positive self-attitudes from belonging to groups that are meaningful to them (Phinney, 1989; Tajfel & Turner, 1986). Unlike a personal identity, such as occupation, ethnicity cannot be chosen by the individual, but rather it is determined at birth or assigned to one by others on the basis of ethnic background or phenotype. Nevertheless, people have choices in the ways in which they deal with their assigned ethnic categories and in the meanings they hold regarding their group membership. The process of ethnic identity formation involves the construction over time of one's sense of self as a group member and of one's attitudes and understandings associated with group membership.

Ethnic identity begins in a rudimentary form in childhood (Ruble et al., 2004). Like personal identity (Erikson, 1968), it is assumed to undergo a major developmental change in adolescence and young adulthood, through the joint processes of exploration and commitment (Phinney, 1989, 1993). Similarly to the identity statuses described by Marcia (1980), individuals are expected to move from ethnic identity diffusion (lack of a clear identity) to either foreclosure (a commitment without exploration) or moratorium (a period of exploration) and to ethnic identity achievement, involving a firm commitment to one's ethnicity based on an exploration that has led to a clear understanding of ethnicity. By adulthood, most people have acquired a relatively stable and secure sense of themselves as ethnic group members, that is, an achieved ethnic identity; but there can be continued exploration of identity issues throughout adulthood (Phinney, 2006). In several studies, researchers have used the statuses in the study of ethnic identity (e.g., Phinney & Chavira, 1992) and the study of racial identity (Yip et al., 2006). However, in the majority of research on ethnic identity, researchers have used continuous scales, in particular, the widely used MEIM (Phinney, 1992), to assess the underlying processes of ethnic identity formation.

Measuring Ethnic Identity With the MEIM

Background

Much early psychological research on ethnic identity dealt with particular ethnic groups, and group-specific measures were used (e.g., Felix-Ortiz et al., 1994; Suinn, Ahuna, & Khoo, 1992). In contrast, the MEIM (Phinney, 1992) was designed to meet the need for a general measure that could assess ethnic identity across diverse ethnic groups. Hence, content specific to particular groups, such as cultural values and beliefs, was not included. The measure included 14 items that assessed the core components of ethnic identity that are assumed to be common across all ethnic groups: a sense of attachment or belonging (based on social identity theory; Tajfel & Turner, 1986), the developmental concept of an achieved identity (based on the empirical work of Marcia, 1980), and involvement in ethnic practices. Ethnic values and beliefs were not included, as they vary across groups. There were 6 items assessing orientation to other groups that were added to the measure to provide a contrast to the ethnic identity items, but the construct of other-group orientation was assumed to be indepen-

dent from ethnic identity. Results of an exploratory factor analysis (Phinney, 1992) suggested that the 14 items of the MEIM constituted a single factor of ethnic identity, distinct from the Other-Group Orientation Scale. A number of studies of the 14-item MEIM have indicated a similar single-factor structure (Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya, 2003; Reese, Vera, & Paikoff, 1998; Worrell, 2000).

However, a large study of the MEIM (Phinney, 1992) carried out with 5,423 young adolescents from a wide variety of ethnic groups in the southwestern United States (Roberts et al., 1999) strongly suggested that the MEIM could best be thought of as consisting of two factors, exploration and commitment. Using exploratory and confirmatory factor analyses, Roberts and colleagues found that 2 items, both negatively worded, did not fit the model. With these 2 items removed, the remaining 12 items represented the two factors, exploration (5 items) and commitment (7 items), consistent with the empirical work of Marcia (1980). The exploration factor included items dealing with efforts to learn more about one's group and participation in ethnic cultural practices. The commitment factor included items reflecting both a positive affirmation of one's group, based on social identity theory (Tajfel & Turner, 1986), and a clear sense of commitment as defined by Marcia (1980). A similar two-factor structure was reported in a large sample of predominantly White early adolescents and Black early adolescents (Spencer, Icard, Harachi, Catalano, & Oxford, 2000) and in other research (Yancey, Aneshensel, & Driscoll, 2003). Using exploratory factor analysis, Lee and Yoo (2004), with a sample of Asian American college students, identified a three-factor solution, one factor roughly equivalent to exploration, and two factors, clarity and pride, which together are similar to commitment. The discrepancy in these findings may stem from the fact that most factor analytic evidence for the MEIM has been derived from exploratory factor analyses; the use of confirmatory factor analyses has been less common, and studies have not tested competing models. Thus, there remains disagreement over whether ethnic identity, as assessed by the MEIM, consists of a single factor or of two or more factors. Nevertheless, the two constructs of exploration and commitment are clearly key components.

New Research With the MEIM

We have recently conducted several studies to address these measurement issues. First, a pilot study was carried out with 93 high school students in southern California from four ethnic minority backgrounds: 35 African Americans, 26 Mexican Americans, 16 Vietnamese Americans, and 16 Armenian Americans ($M_{\text{age}} = 16$ years; Phinney & Baldelomar, 2006), with the 12-item version of the MEIM (Roberts et al., 1999) described earlier. Items were examined to determine their face and content validity with respect to the constructs of interest. Interviews and focus groups were used to examine the appropriateness of items for diverse minority youths, and several changes were made. First, two behavioral items (being active in ethnic organizations and participating in cultural practices) were deleted. As we discussed earlier, although behaviors are typically correlated with ethnic identity, they are conceptually distinct from ethnic identity, which is an

internalized sense of self; one can have a strong sense of belonging to a group and yet not be involved in day-to-day ethnic activities.

Additional changes were made in the wording of some items to make them applicable for both the present and the past. Exploration items that were stated in the present tense (e.g., "I think about how my life will be affected by my ethnic group membership") were changed to the present perfect ("I have thought about . . ."), to deal with the fact that exploration may have been carried out previously or may be ongoing. The reworded items thus applied equally to individuals who were currently exploring and to those who had explored in the past, consistent with the theoretical view that an achieved identity involves past exploration.

Changes were also made to create two subscales (exploration and commitment) with equal numbers of items, so that the two scales would be equally weighted in analyses in which they were used together. There were 2 new items that were added to the exploration scale ("I have often done things that will help me understand my ethnic background better." "I have sometimes wondered about the meaning or implications of my ethnicity.") to yield a 5-item subscale. The 7-item commitment subscale was reduced to 5 items by deleting 2 items that were redundant with existing commitment items ("I am happy that I am a member of the group I belong to." "I have a clear sense of my ethnic background and what it means for me."), to yield a 5-item commitment scale. The resulting scale was a 10-item scale consisting of two conceptually based subscales (exploration and commitment), each with 5 items.

We carried out a new study (Phinney & Ong, 2006) to test alternative theoretical models of the underlying factor structure of the revised 10-item ethnic identity measure, using exploratory and then confirmatory factor analysis. Two independent samples of college students from a predominantly minority urban public university in southern California were used in the research. The first sample included 192 ethnically diverse university students who self-identified as follows: 70% Latino, 20% Asian American, 5% European American, 3% African American, and 2% mixed heritage or other background; 65% women and 35% men; and mean age, 17.9 years. An examination of the reliability of the 10-item

MEIM yielded Cronbach's alphas of .83 for exploration and .89 for commitment, indicating good internal consistency. We then carried out a maximum likelihood factor analysis with oblimin rotation and found that both the scree plot and the eigenvalue-greater-than-one criteria indicated a two-factor structure. Next, corrected item-total correlations were generated for the scale. Using the guidelines provided by Nunnally and Bernstein (1994), we eliminated items that were relatively unreliable indicators of the dimensions they were intended to reflect. Specifically, items with low loadings ($\lambda < .40$) were dropped to increase the proportion of variance that factors explained in their constituent indicators. This criterion led us to retain 3 items for the exploration factor and 3 items for the commitment factor. The final list of 6 items of the revised measure (Multigroup Ethnic Identity Measure—Revised; MEIM-R) is shown in Table 1. These data suggest that two-factor model is worthy of investigation.

To avoid capitalizing on chance, additional data were gathered to investigate this model as well as alternative models. We sought to confirm the underlying factor structure of the MEIM-R by submitting the item responses to a confirmatory factor analysis. An independent sample was recruited from the same university, consisting of 241 university students (51% Latino, 26% Asian American, 9% European American, 14% of mixed heritage or other; 78% women and 22% men; 26.5% foreign born; and mean age, 19.7 years). We conducted confirmatory factor analysis to test the fit of the data to competing theoretical models. Table 2 presents the estimates of five alternative models. We began with a baseline model, reflecting the null theory that the latent construct of ethnic identity consists of innumerable independent factors. Next, we tested the single-factor model, which allowed for an evaluation of the adequacy of the measured variables as indicators of a single latent factor. We then fit a third model to the data, which was based on the hypothesis that ethnic identity exploration and commitment are two uncorrelated factors. In contrast, our fourth model allowed the latent constructs of exploration and commitment to correlate. Finally, we tested a single second-order model, in which it was stipulated that (a) the measured variables could be explained by two first-order factors (i.e., exploration and commitment) and

Table 1
Multigroup Ethnic Identity Measure—Revised (MEIM—R)

Item no.	Item
1	I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
2	I have a strong sense of belonging to my own ethnic group.
3	I understand pretty well what my ethnic group membership means to me.
4	I have often done things that will help me understand my ethnic background better.
5	I have often talked to other people in order to learn more about my ethnic group.
6	I feel a strong attachment towards my own ethnic group.

Note. In administering the measure, these items should be preceded by an open-ended question that elicits the respondent's spontaneous ethnic self-label. It should conclude with a list of appropriate ethnic groups that the respondent can check to indicate both their own and their parents' ethnic backgrounds (see Phinney, 1992). Items 1, 4, and 5 assess exploration; Items 2, 3, and 6 assess commitment. The usual response options are on a 5-point scale, from *strongly disagree* (1) to *strongly agree* (5), with 3 as a neutral position. The score is calculated as the mean of items in each subscale (Exploration and Commitment) or of the scale as a whole. Cluster analysis may be used with the two subscales to derive ethnic identity statuses. Items were adapted from "The Multigroup Ethnic Identity Measure: A New Scale for Use With Diverse Groups," by J. Phinney, 1992, *Journal of Adolescent Research*, 7, p. 172–173. Copyright 1992 by Sage.

Table 2
Fit Indices of Confirmatory Factor Analyses (Maximum Likelihood Estimation) of Ethnic Identity Items

Model no.	Model	χ^2	<i>df</i>	χ^2/df	AGFI	SRMR	RMSEA	IFI	CFI
1	Independence	743.94	15	49.60	.26	.39	.35	0	0
2	One factor	74.08	9	8.23	.85	.16	.09	.95	.91
3	Uncorrelated two factors	96.55	9	10.73	.81	.36	.23	.85	.87
4	Correlated two factors	15.29	8	1.91	.96	.05	.04	.98	.98
5	Single second order	13.18	7	1.88	.95	.06	.05	.96	.95

Note. $N = 241$. AGFI = adjusted goodness-of-fit index; SRMR = standardized root-mean-square residual; RMSEA = root-mean-square error of approximation; IFI = incremental fit index; CFI = comparative fit index.

one second-order factor (i.e., ethnic identity), (b) each item would have a nonzero loading on the first-order factor it was designed to measure, and zero loadings on the other first-order factor, (c) residual terms associated with each item would be uncorrelated, and (d) covariation between the two first-order factors would be explained fully by their regression on the second-order factor.

Table 2 presents the results of comparative analyses of fit for the models tested. To assess model fit, we used the Satorra–Bentler scaled (mean-adjusted) chi-square test, a robust maximum likelihood estimation technique. The chi-square difference test was calculated following the method recommended by Satorra and Bentler (2001). Obtaining a nonsignificant chi square becomes increasingly unlikely with large sample sizes (Bentler, 1990). Therefore, we focused on other indices of model fit that are less sensitive to sample size, including the adjusted goodness-of-fit index (AGFI), the comparative fit index (CFI), the incremental fit index, the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual. It is generally accepted that AGFI, CFI, and incremental fit index values greater than .90 indicate adequate model fit (Kline, 1998), and we adopted

this cutoff. For RMSEA and standardized root-mean-square residual, the recommended criterion for good fit differs among sources, ranging from less than .05 to less than .10 (Hu & Bentler, 1995). We chose less than .10 as the criterion for both indices; thus, only values less than .10 were deemed to show adequate fit. Finally, relative improvements in goodness of fit were assessed with a nested chi-square test. Statistically significant reductions in the chi square suggest that the additional parameter improved the model specification (Hu & Bentler, 1995). Table 2 shows that the hypothesized correlated two-factor model (Model 4) fit the data better than the alternative null, one-factor model or uncorrelated, two-factor model. The indices of fit of the correlated two-factor model all suggested that it was an excellently fitting model (e.g., $\chi^2/df = 1.91$, $p < .001$, AGFI = .96, CFI = .98, RMSEA = .04) and, therefore, a good representation of the latent structure of ethnic identity. Figure 1 shows the details of this model, including the correlation between the two factors: .74. Reliability analyses of the two subscales showed that both have good reliability, with Cronbach's alphas of .76 for exploration and .78 for commitment. For the combined 6-item scale, alpha was .81.

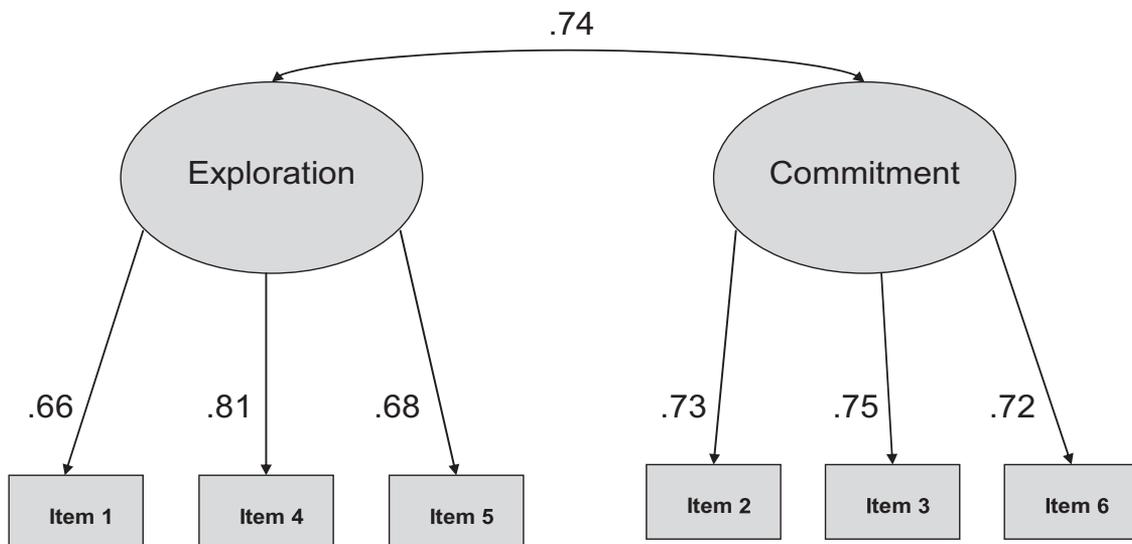


Figure 1. Standardized parameter estimates of a model of ethnic identity with two correlated factors. Item numbers refer to the items from the scale shown in Table 1.

Finally, although the hierarchical second-order model (Model 5) provided an adequate measurement model for the current sample (e.g., $\chi^2/df = 1.88, p < .001, AGFI = .95, CFI = .94, RMSEA = .05$), a nested chi-square test of the relative fit of this model over the correlated two-factor model revealed a nonsignificant improvement in fit. Thus, whether one should adopt the correlated two-factor model of ethnic identity or its hierarchical counterpart depends on one's research objectives. The first-order model enables one to examine the relationship between the two lower order ethnic identity factors (i.e., commitment and exploration). The higher order model, in contrast, enables one to examine the common variance between the two ethnic identity factors as an independent or dependent variable in its own right. Limitations regarding the sample of this study must be noted. Invariance of the factor structure across gender could not be examined because there were too few men to appropriately analyze these data. In addition, examination of the factor structure across culture was also not permissible because of differences in the sample size across ethnic groups. These findings are thus preliminary, and more research is necessary to determine how sociodemographic factors (e.g., gender, ethnicity and race, socioeconomic status, age) influence the underlying factor structure of ethnic identity. Despite these limitations, the present study suggests that researchers interested in assessing ethnic identity can enhance both conceptual and predictive precision by using the refined MEIM-R.

Implications for Theory and Research

The implications of the analyses are that ethnic identity, as assessed by the MEIM-R (Table 1), is best thought of as consisting of two factors, exploration and commitment, which are distinct processes that make separate contributions to the underlying structure of ethnic identity. For research purposes, the two scales can be used separately to address questions regarding the differing implications of exploration and commitment. There is some previous research that shows that these two aspects of ethnic identity have somewhat different correlates, for example, with self-esteem and perceived discrimination (Romero & Roberts, 1998, 2003).

However, the two scales are closely related. Theoretically, the strong relationship between these two variables makes sense. Exploration is unlikely without at least a certain level of commitment, and more exploration is likely to lead to a stronger commitment. Likewise, a commitment or attachment to one's group is expected to promote interest in exploring one's ethnicity. Nevertheless, because the two scales are distinct constructs, they may be used separately to gain greater insight into the process of ethnic identity development (cf. French, Seidman, Allen, & Aber, 2006). For studies concerned only with the overall strength of ethnic identity or the degree to which ethnic identity is achieved, the two scales can be combined. Within a developmental framework, the word *ethnic* could be changed to *racial* to make the scale applicable to assessing exploration, commitment, or the strength of identity with regard to one's racial group.

Clearly, the MEIM-R does not include other aspects of ethnic identity that were discussed earlier, although it includes items assessing ethnic self-categorization or labeling. We suggest that studies of ethnic identity should include additional measures for other aspects of ethnic identity, depending on the research ques-

tions of interest. For example, Yip and Fuligni (2002) added measures of ethnic salience and ethnic behaviors specific to a particular group in a study of daily variation of ethnic identity and well-being. In other research, Fuligni, Tseng, and Lam (1999) developed a measure of ethnic attitudes and values regarding family obligations that can be used in conjunction with measures of ethnic identity. Because the commitment scale of the MEIM-R assesses attachment, belonging, and understanding but not explicit attitude items, such as pride and feeling good about one's group, researchers can include positive attitude measures, such as regard, when such feelings are of interest to the research (e.g., Kiang et al., 2006). In summary, the MEIM-R provides a concise measure of the core aspects of group identity that determine the strength and security of ethnic identity or the degree to which ethnic identity has been achieved. Because it is relatively short, it can readily be combined with other measures to assess other dimensions of the construct.

Future Directions

In this section, we briefly consider the methodological recommendations offered in this issue by Cokley (2007) and Helms (2007).

Use of Confirmatory Factor Analysis

We agree that exploratory factor analysis—a theory-generating method—should be reserved only for those areas that are truly exploratory, that is, areas in which little or no prior analyses have been conducted and that confirmatory factor analysis offers the researcher a more viable method for evaluating construct validity (Gorsuch, 1983). However, we note that even when confirmatory factor analysis has been used in prior studies of ethnic identity, there has been little attempt to test and compare the relative fit of competing models (for a discussion, see Worrell, Conyers, Mpofu, & Vandiver, 2006). Its ability to directly assess factorial validity, we underscore, is the major advantage of confirmatory factor analysis over exploratory factor analysis. That is, confirmatory factor analysis enables researchers to compare the goodness-of-fit of nested alternative measurement models systematically, with maximum likelihood tests (Bollen, 1989), whereas model contrasts are more descriptive in exploratory factor analysis. Confirmatory factor analysis also allows researchers to examine parsimonious versions of factor models constraining items to load only on certain factors and not others, whereas exploratory factor analysis necessarily involves saturated models in which all items load on all factors. In addition to first-order factor analysis models, more complex hierarchical models can also be specified and tested in confirmatory factor analysis. These models can address a number of relatively common analysis problems that arise in research on instrument development, such as convergent and discriminant validity, multitrait-multimethod matrices, hierarchical (second-order) models, and cross-group comparisons.

Multigroup confirmatory factor analysis permits researchers to directly test the degree to which structural validity generalizes across multiple samples, whereas such comparisons can be done only descriptively with exploratory factor analysis (Bryant & Yarnold, 1995). For example, do people interpret the items of the

MEIM in comparable ways? The finding that ethnic identity increases with age (French et al., 2006) may reflect valid developmental changes in ethnic identity, but it is also possible that certain MEIM items capture aspects of ethnic identity that are likely to be differentially endorsed by early, middle, or late adolescents. Establishing that an instrument is factorially invariant, therefore, provides evidence not only that respondents from different groups can be legitimately compared but also that observed group mean differences in raw scores reflect valid and meaningful group differences at the level of the latent variable assumed to underlie those scores. Thus, there is need for evidence of measurement invariance as a necessary prerequisite for understanding other research pertaining to the structural and developmental validity of ethnic identity. (For an excellent review of measurement invariance procedures, see Bontempo & Hofer, 2006.)

Use of Group Specific Measures

One source of confusion in the measurement of group identity is the failure to distinguish between general and group specific issues related to ethnic or racial identity. For understanding general processes and correlates of these identities or making comparisons across groups, it is most appropriate to use generic measures that are applicable to all groups. However, each ethnic and racial group has unique issues to deal with in the formation and enactment of a group identity. We agree with Cokley (2007) that specific aspects of group identity for particular groups, such as values, attitudes, and behaviors, should be used for within-group studies and for addressing particular research questions, as we have discussed earlier. Some of the subscales of existing measures of racial identity are in fact measures of Black identity rather than of racial identity generally. The study of racial identity could be advanced by clarifying which aspects of such scales deal with racial identity in general and would thus be applicable to groups other than African Americans, for example, to Chinese Americans or Mexican Americans.

Longitudinal Investigations of Ethnic Identity Development

Surprisingly little research has been done to directly explore the nature and extent to which ethnic identity changes during adolescence and early adulthood. Although several studies provided evidence of age-related changes in ethnic identity (e.g., French et al., 2006; Pahl & Way, 2006), much of the evidence is cross-sectional. Such studies have provided important information about population-level mean trends but are unsuitable for answering questions about the interdependence of age changes within individuals. Consequently, prior studies have not been able to test for age changes in ethnic identity. Such relationships can only be elaborated satisfactorily with longitudinal data. A crucial question for future research is, What functional form do trajectories of ethnic identity take over the adolescent and early adult years? Growth curve models, such as hierarchical linear models, allow investigators to fit growth trajectories for individuals and relate characteristics of these individual growth trajectories (e.g., slope) to covariates. For excellent overviews of growth curve and hierarchical linear models for longitudinal panel studies, the reader is

referred to Raudenbush (2000) and McArdle and Nesselroade (2003). Additional questions include how early environmental risk and supports may become reflected in the differential patterns of later ethnic identity development. To the extent that risk factors (e.g., poverty) occur disproportionately in the lives of ethnic minority youths, such conditions may be among the stressors that help to explain disparities in health among those of unequal social and economic standing (Ong, Phinney, & Dennis, 2006).

Summary and Conclusions

In this article, we have provided a general orienting framework that can guide the thinking of researchers about ethnic identity, sensitize them to the kinds of data that are needed to study ethnic identity, and suggest fruitful lines of analyses. Because ethnic identity is a multidimensional construct, no single measure can assess it in all its complexity. We have emphasized that at the core of ethnic identity is a sense of self as a group member that develops over time through an active process of investigation, learning, and commitment. A generic measure of this process is captured by the MEIM-R. However, additional measures should be used in research with particular groups to provide understanding of group-specific values, attitudes, and behaviors. Because ethnic identity changes with time and context, it is essential to take a process approach to understanding the construct. Models that describe this process must be functional and dynamic. On the basis of our understanding that science is a never-ending search for better explanations and that no theory is final, we can expect that current models of ethnic identity will, in time, be replaced by better models.

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