Ingroup Identification as the Inclusion of Ingroup in the Self

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This article presents a basic conceptualization of ingroup identification as the degree to which the ingroup is included in the self and introduces the Inclusion of Ingroup in the Self (IIS) measure to reflect this conceptualization. Using responses from samples of women and ethnic minority groups, four studies demonstrate the utility of this conceptualization of ingroup identification and provide support for the IIS. Results from these studies establish construct validity, concurrent and discriminant validity, and high degrees of test-retest reliability for the IIS. Reaction time evidence also is provided, supporting the use of the IIS as a measure of ingroup identification. Particular strengths of this conceptualization of ingroup identification and potential uses for the IIS are discussed.

Research and theory in social psychology reflects a sustained interest in understanding how the self is construed in relation to one's group memberships (see Brewer & Gardner, 1996). Much of this effort has been fueled by work on social identity and self-categorization (e.g., Tajfel, 1981; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Tajfel (1981) described social identity as "that part of an individual's self-concept which derives from [her or] his knowledge of [her or] his membership in a social group (or groups) together with the value and emotional significance attached to that membership" (p. 255). Self-categorization extended this framework by placing a particular emphasis on the salience of group memberships in social situations (Turner et al., 1987). When a social identity is salient, individuals act and think as group members (Brewer, 1991) and rely on the ingroup as a guide for their own thoughts and behaviors (Terry & Hogg, 1996).

Most recently, researchers have looked beyond the situational salience of group identities to also consider how identification with the ingroup can influence individuals' perceptions, feelings, and behaviors. As compared with those low in identification, those high in identification are more likely to see and think of themselves as ingroup members (e.g., Spears, Doosje, & Ellemers, 1997), to feel close and similar to ingroup members (e.g., Doosje, Ellemers, & Spears, 1995), to remain committed to the ingroup in the face of threat (e.g., Ellemers, Spears, & Doosje, 1997; Ethier & Deaux, 1994), to be concerned about how their group is treated relative to other groups (e.g., Petta & Walker, 1992; Tropp & Wright, 1999), and to behave in ways that benefit the ingroup (e.g., Abrams, 1990; Smith & Tyler, 1997).

Definitions of ingroup identification. Although attention to ingroup identification has increased in recent years, its definition has become somewhat obscured as numerous terms and approaches have been used to define the construct (see Jackson & Smith, 1999). Some have referred to ingroup identification in terms of the degree to which individuals define or see themselves as group members (e.g., Turner et al., 1987). Others have regarded ingroup identification as the personal significance that a group membership holds for an individual (e.g., Tajfel, 1981) or the importance of a group membership to one's sense of self (e.g., Luhtanen & Crocker, 1992). Ingroup identification also has been described as

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pride in one's group (e.g., Smith & Tyler, 1997), attraction to one's group (Jackson & Smith, 1999), or as a "psychological attachment" whereby individuals "feel close to" a particular ingroup (Lau, 1989, p. 221; see also Smith, Murphy, & Coats, 1999).

The Inclusion of Ingroup in the Self

We believe that these varied definitions of ingroup identification are attempts to represent a common, underlying theme and that at its most basic level, the construct of ingroup identification can be more simply defined. To this end, we propose a basic conceptualization of ingroup identification as the degree to which the ingroup is included in the self.

This expression of ingroup identification has been inspired jointly by the work of Aron and his colleagues on close relationships (Aron, Aron, & Smollan, 1992; Aron, Aron, Tudor, & Nelson, 1991) and by work on social categorization that emphasizes the overlap between self and ingroup (Smith, Coats, & Walling, 1999; Smith & Henry, 1996; see also Brewer & Gardner, 1996). Aron et al. (1991) use the term "inclusion of other in the self" to refer to the interconnectedness between self and other in close relationships. Rather than being perceived as separate beings, self and other are regarded as "overlapping selves" (p. 597), where characteristics of the close other are considered as part of one's self. More recently, Smith and his colleagues (Smith, Coats, & Walling, 1999; Smith & Henry, 1996) have applied this approach to describing processes of self-categorization. When individuals categorize themselves as group members, the ingroup becomes included in the self and individuals recognize the characteristics of the ingroup as representing part of themselves.

We extend this approach beyond self-categorization processes by recognizing that individuals also vary in the degree to which they include the ingroup in the self, and this variability contributes to differences in how individuals interpret their experiences in the social world. This principle has been assumed—if not explicitly stated—in much of the research on ingroup identification, which has revealed the aforementioned (and other) important differences between those who are and those who are not strongly identified with the ingroup (e.g., Ellemers et al., 1997; Smith & Tyler, 1997; Spears et al., 1997). Thus, although the recognition of one's group membership can produce a psychological connection between the self and the group (as Smith and his colleagues have convincingly shown), there is a considerable amount of variability in the degree to which people feel a subjective sense of interconnectedness with their groups; that is, in the degree to which they include the ingroup in the self.

By describing individual variability in the inclusion of ingroup in the self, we do not contend that one's level of ingroup identification is independent of the local social context. One's self-representation as a group member can vary substantially across social situations, depending on the salience of the particular group membership and other relevant identities (e.g., Smith, Murphy, & Coats, 1999; Turner et al., 1987). Instead, we regard the degree to which the ingroup is included in the self as a relatively constant individual difference that individuals bring to social situations, one that can interact with cues in the social environment to guide perceptions, interpretations, and responses to that context (see Deaux, 1993; Ethier & Deaux, 1994).

Comparisons to Other Conceptualizations of Identity and Group Membership

Although related in some respects, our view of identification as the degree to which the ingroup is included in the self is distinct from other approaches to identity and group membership.

Interdependent self-construals. Cross-cultural perspectives have considered differences in the degree to which people define themselves in terms of their group memberships (Triandis, 1989). For example, Markus and Kitayama (1991) describe distinctions between independent and interdependent self-construals. Independent self-construals emphasize one's separateness and uniqueness as an individual, whereas interdependent self-construals emphasize one's connectedness to others. Although consistent with this analysis, our perspective differs from that of Markus and Kitayama (1991) in two important respects. Rather than referring to connectedness between self and other on a generalized level, we refer to the individual's sense of connectedness with a specific ingroup. In addition, instead of emphasizing differences across cultures, we focus on how people within cultures will vary in the degree to which they include the ingroup in the self. Although broad, cultural differences are important, we believe it is also valuable to recognize that variability exists within cultures (Betancourt & Lopez, 1993) in terms of the degree to which individuals value specific group memberships and consider those group memberships to be important for self-definition.

Models of racial and ethnic identity. Others have proposed elaborate models to describe how people identify as members of specific racial and ethnic groups (Helms, 1990; Sellers, Rowley, Chavous, Shelton, & Smith, 1997). These models tend to be multidimensional, including factors such as one's endorsement of relevant ideologies in addition to one's psychological connection to the racial or ethnic ingroup. The models can be highly useful for comprehensive studies of issues that are relevant and common to many members of the groups for whom

the models were intended. However, such models can be problematic when applied to other groups (see Elizondo & Hu, 1999), and the specific bases of identification can vary substantially depending on the nature of the groups themselves (Brown, Condor, Mathews, Wade, & Williams, 1986; Hinkle, Taylor, Fox-Cardamone, & Crook, 1989). Because our perspective involves the underlying interconnectedness between self and ingroup, it can offer a more basic and concise means of studying ingroup identification across members of a variety of groups.

Here, we do not intend to minimize the significance of examining specific factors relevant to specific identities. These finer distinctions have yielded important insights into the functions and nature of membership in different types of groups (e.g., Deaux, Reid, Mizrahi, & Ethier, 1995; Jackson & Smith, 1999; Silver & Brewer, 1999). Still, we believe the interconnectedness between self and ingroup represents a basic psychological process common to all ingroups, and this concept can be well understood in terms of the degree to which the ingroup is included in the self.

Collective identity and collective self-esteem. Other approaches have involved the assessment of identity and esteem associated with one's group memberships (Cheek, Tropp, Chen, & Underwood, 1994; Luhtanen & Crocker, 1992). Such measures have provided a long-needed means for researchers to assess individuals' feelings toward their group memberships. At the same time, these measures were constructed to examine collective identity and collective self-esteem in their aggregate forms rather than focusing on the personal significance granted to specific group memberships. People may vary considerably in the extent to which they regard specific ingroup identities as central to their self-conceptions (Higgins & King, 1981). It is this variability that we seek to highlight by describing ingroup identification in terms of the degree to which the ingroup is included in the self. Unlike the broader collective identity and collective self-esteem approaches, we emphasize the degree to which a specific ingroup is part of the person's self-representation, not the tendency to define oneself in terms of group memberships on a more general level.

Assessing the Inclusion of Ingroup in the Self

It would be most appropriate to assess the degree to which individuals include a specific ingroup in the self with a measure that taps the interconnectedness between self and ingroup underlying our conceptualization. To develop such a measure, we referred to a scale created by Aron and his colleagues for research on close relationships. The Inclusion of Other in the Self (IOS) scale (Aron et al., 1992) is a pictorial measure designed to assess the level to which "the other is included in the self" (see Aron et al., 1991, for an extended discussion). From a series of Venn-like diagrams, each of which is composed of two circles varying in their degree of overlap, respondents are asked to select the diagram that best represents their relationships with a close other.

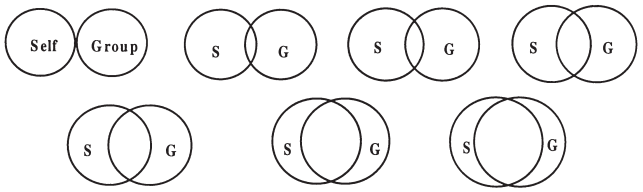

Figure 1 The Inclusion of Ingroup in the Self measure.
NOTE: Respondents were asked to circle the pair of circles that "you feel best represents your own level of identification with your group." S = self, G = group.

Because this representation parallels our conceptualization, Aron et al.'s (1992) approach may be an effective means for assessing ingroup identification. In applying the approach to the assessment of ingroup identification, the "other" is replaced by the "ingroup" of interest. Thus, the Inclusion of Ingroup in the Self (IIS) measure consists of seven Venn-like diagrams, with pairs of circles varying in their degree of overlap, and respondents are asked to select the pair of circles that best represents their level of identification with a given ingroup (see Figure 1).

We acknowledge that some existing, aggregate measures of collective identity can be modified to assess individuals' feelings of connectedness to specific groups. We expect that the IIS will be strongly associated with these other measures of ingroup identity and will function in a manner quite similar to these measures as a correlate or predictor for other constructs.

Nonetheless, use of the IIS may be preferable for several reasons. First, the visual representation of the measure's overlapping circles captures the essence of the inclusion of ingroup in the self rather than relying on many differently worded items to tap the concept. In addition, as a single-item measure, the IIS can easily be adapted for a variety of group memberships and can be administered more quickly than multi-item measures, making it particularly useful for research contexts where time is limited or for studies involving multiple group memberships.

Preliminary Research

We argue that the visual nature of the IIS might make it an especially effective measure of ingroup identification because the overlapping circles reflect the essence of connectedness to an ingroup. Still, although primarily a visual instrument, we must acknowledge that the IIS

includes a linguistic component in its written instructions. Therefore, pilot data were collected to test the consistency of the IIS across different wordings of its instructions.

Participants included 247 women enrolled in undergraduate psychology courses who responded to one of three versions of the IIS, where they stated which pair of circles best represents either (a) their level of identification with the group "women" ($n = 101$), (b) their sense of connection with the group "women" ($n = 73$), or (c) their relationship with the group "women" ($n = 73$). Responses to the IIS ranged from 1 (*no overlap*) to 7 (*high degree of overlap*). A one-way analysis of variance indicated there were no significant differences in mean IIS scores across the three versions ($M = 5.32$ for the identification version, 5.25 for the connection version, and 5.14 for the relationship version), $F(2, 244) = .47$, $p > .60$.

All women also completed the Identity subscale of the Collective Self-Esteem Scale (CSES) (Luhtanen & Crocker, 1992), with items adapted for gender group membership and a single item adapted from Karasawa (1991) concerning awareness of gender group membership ("How often do you acknowledge or think about the fact that you are a woman?"). The identification, connection, and relationship versions of the IIS were all positively correlated with the CSES-Identity subscale (rs = .34, .45, and .35, respectively; $p < .05$) and with the awareness of group membership item (rs = .49, .54, and .26, respectively; $p < .05$). In these cases, correlations between the IIS and the other ingroup identity measures were not significantly different in magnitude across the three versions (zs ranging from –.81 to 1.65, $p > .05$). Results from this study indicate that all three wordings of the IIS serve reasonably well as measures of ingroup identification, thereby suggesting that the IIS is a robust measure with respect to alterations in wording.

The Present Research

This article presents four independent studies that examine our conceptualization of identification as the degree to which the ingroup is included in the self and that test the validity and reliability of the IIS as a measure for this concept. The first study provides reaction time evidence showing differences in cognitive representations of self and ingroup among women with high and low IIS scores, thereby suggesting the appropriateness of the IIS as a measure of ingroup identification. The second study correlates the IIS with other identity measures across two ethnic minority samples (Latinos and African Americans) and tests the IIS as a predictor for support for collective action. A third study investigates different ways in which people may feel close to ingroup members and how the IIS compares to other ingroup identity measures in relating to these variables. Finally, a fourth study investigates test-retest reliability for the IIS.

STUDY 1

Study 1 explored links between individuals' scores on the IIS and their cognitive representations of the self and the ingroup by comparing reaction times for characteristics associated with the self and the ingroup. Aron et al. (1991) used this procedure to examine cognitive representations of self and others in close relationships. The authors proposed that if close others are included in the self, cognitive representations of one's self and the close other will become interconnected. Consequently, in terms of reaction time, individuals should respond more slowly to characteristics that produce an inconsistency between oneself and the close other because this inconsistency would interfere with cognitive processing. Conversely, individuals should respond more quickly to characteristics that produce consistency between oneself and the close other because no such interference would take place.

To test this hypothesis, Aron et al. (1991, Experiment 3) asked participants to rate the extent to which a series of characteristics were descriptive of themselves and of their spouses. Using the same series of characteristics, participants then indicated whether each characteristic was self-descriptive or not self-descriptive while their reaction time was measured. Aron et al. (1991) found that participants were slower in responding to characteristics that produced an inconsistency between self and other, whereas they were relatively faster in responding to characteristics for which perceptions of self and other were consistent.

Smith and Henry (1996; see also Smith, Coats, & Walling, 1999) adopted this paradigm to study relationships between cognitive representations of the self and the ingroup. Using the same set of characteristics employed by Aron et al. (1991), Smith and Henry (1996) asked participants to rate the extent to which each characteristic described themselves and their ingroup and later to indicate whether each characteristic was self-descriptive in a reaction time task. Confirming their hypothesis, Smith and Henry (1996) found that participants responded faster to characteristics that produced consistency between the self and the ingroup, particularly for characteristics that were descriptive of both the self and the ingroup.

In the present study, we extend this research by investigating cognitive representations of self and ingroup in relation to individuals' levels of ingroup identification (as measured by the IIS). If identification with the ingroup represents the degree to which the ingroup is

included in the self, reaction times for self-descriptive characteristics should not only vary depending on the ingroup descriptiveness of the characteristics but also should be moderated by level of ingroup identification (i.e., scores on the IIS). Specifically, we predicted that cognitive representations of the self and the ingroup would be less closely connected among individuals with low IIS scores, whereas cognitive representations of the self and the ingroup would be more closely connected among individuals with high IIS scores. Thus, ingroup descriptiveness should have little influence on reaction times for self-descriptive characteristics among participants with low IIS scores because the ingroup is less closely associated with the self and, therefore, inconsistencies in ratings of the self and ingroup would be unlikely to disrupt cognitive processing. In contrast, ingroup descriptiveness should influence reaction times for self-descriptive characteristics among participants with high IIS scores, because any inconsistencies in ratings of the self and ingroup would be likely to interfere with cognitive processing.

METHOD

Pretest Questionnaire

As part of a mass testing in the first week of several psychology classes, undergraduates completed a pretest questionnaire, including three demographic items (gender, ethnicity, and age) and the IIS (see Figure 1). The instructions asked respondents to choose the pair of circles that best represents their level of identification with their gender group, with possible choices ranging from 1 (*no overlap*) to 7 (*high degree of overlap*).

Sample

Responses to the pretest questionnaire were used to identify European American women, and these respondents were contacted by telephone and asked to participate in the study. A total of 74 European American women volunteered to participate in exchange for research participation credit. Their ages ranged from 17 to 29 years ($M = 19$ years).

Testing Procedures

Participants were tested individually between 1 and 5 weeks after the pretest. At the beginning of each testing session, participants received two envelopes (marked A and B) and a series of written and audiotaped instructions.

Using a cover story similar to that employed by Smith and Henry (1996), participants were informed that the study concerned comparisons between individuals' responses to paper-and-pencil measures and computer-generated measures. Participants were informed that they should first complete the questionnaire enclosed in envelope A (referred to as Questionnaire A) and should then proceed to complete the questionnaire in envelope B (referred to as Questionnaire B).

Questionnaire A. Questionnaire A consisted of three lists of 90 trait characteristics, varying in degrees of likableness as determined by Anderson (1968). The trait characteristics on each list were identical and also were identical to those used by Aron et al. (1991) and Smith and Henry (1996). The three lists only differed with respect to their instructions. Participants were asked to rate how characteristic or uncharacteristic the 90 traits were (a) of themselves, (b) of women in general, and (c) of men in general. Ratings of traits for both "women in general" and "men in general" were included so that participants would believe that both men and women were recruited for the study (yet ratings for "men in general" were not analyzed). The order in which the three lists were presented was counterbalanced across participants.

For each characteristic, ratings ranged from 1 (*extremely unlike*) to 6 (*extremely like*). Because these ratings would later be dichotomized for data analysis, a 6-point scale was used rather than a 7-point scale to avoid the need to discard any responses that fell on the midpoint of the scale (as was done by Smith & Henry, 1996).

Questionnaire B. Questionnaire B was a filler task that served to produce a delay between participants' responses to the paper-and-pencil measures and the computer-generated measure as well as to enhance the believability of the cover story. The questionnaire included items concerning participants' impressions of the paper-and-pencil measures and their prior experiences working with computers. Responses to these items were not analyzed.

Computer-generated questionnaire. Once participants completed Questionnaire B, they were directed to a computer in the same testing room. After a set of instructions and a practice trial, each of the 90 trait characteristics appeared individually on the computer screen until the participant pushed one of two buttons to indicate either a "yes" or "no" response. For each trait characteristic, participants indicated whether the trait was characteristic of themselves (i.e., a "yes" response) or not characteristic of themselves (i.e., a "no" response). The 90 trait characteristics were presented in a randomized order, which differed for each participant.

After the computer-generated questionnaire, participants completed a final questionnaire, which included the IIS and the demographic items included in the pretest.

RESULTS AND DISCUSSION

Research Design

Consistent with the approaches used by Aron et al. (1991) and Smith and Henry (1996), reaction time data were analyzed using a 2 (identification: high/low) × 2 (self-descriptiveness: yes/no) × 2 (ingroup descriptiveness: yes/no) mixed-factorial design. Identification was a between-participants factor, and Self-Descriptiveness and Ingroup Descriptiveness were within-participants factors.

Identification. Prior to data analysis, participants were categorized as either high or low in identification with their gender group based on their pretest IIS scores. Scores between 1 and 4 on the IIS were regarded as "low-identification" responses, and scores between 5 and 7 were regarded as "high-identification" responses. Altogether, 28 women were categorized as low-identification participants (M = 2.89) and 46 were categorized as high-identification participants (M = 6.20).

Self- and ingroup descriptiveness of characteristics. Prior to data analysis, participants' paper-and-pencil ratings of each characteristic also were dichotomized with respect to their self-descriptiveness and ingroup descriptiveness. For self-descriptiveness, ratings of characteristics that fell between 1 and 3 on the 6-point scale were regarded as not descriptive of oneself (i.e., a "no" response), whereas ratings that fell between 4 and 6 on the 6-point scale were regarded as descriptive of oneself (i.e., a "yes" response). Similarly, for ingroup descriptiveness, ratings of characteristics that fell between 1 and 3 on the 6-point scale were regarded as not descriptive of women in general (i.e., a "no" response), whereas ratings that fell between 4 and 6 on the 6-point scale were regarded as descriptive of women in general (i.e., a "yes" response).

Organization of reaction time data. Following procedures used by Smith and Henry (1996) (also see Ratcliff, 1993), reaction times (RTs) of less than 300 ms or greater than 5,000 ms were excluded on an a priori basis (totaling fewer than 6% of all RTs). For each participant, using her dichotomized ratings of the characteristics, the 90 characteristics were organized into four categories: (a) those rated as self-descriptive and descriptive of the ingroup (women), (b) those rated as self-descriptive but not descriptive of the ingroup, (c) those not rated as self-descriptive but rated as descriptive of the ingroup, and (d) those rated as neither self-descriptive nor descriptive of the ingroup. By respondent, initial mean RTs were then computed for characteristics in each category.

At this stage, responses from two participants were omitted because their mean RTs were greater than 3,200 ms, more than 3 standard deviations above the mean RTs for the rest of the sample. Responses from two other participants were omitted because of missing data.

Data Analysis

With the final sample of 70 participants, a 2 (identification: high/low) × 2 (self-descriptiveness: yes/no) × 2 (ingroup descriptiveness: yes/no) mixed-model analysis of variance was conducted. The main effect for Identification was not significant, $F(1, 68) = 1.09$, $p > .30$, $\eta^2 < .02$, indicating that, by itself, level of identification with the ingroup "women" has no significant effect on RTs.

At the same time, the main effect for Self-Descriptiveness was significant, $F(1, 68) = 9.99$, $\eta^2 = .13$, $p < .01$, and this effect was qualified by a significant Self-Descriptiveness × Ingroup Descriptiveness interaction, $F(1, 68) = 22.66$, $\eta^2 = .25$, $p < .001$. Replicating results from Smith and Henry (1996) and Smith, Coats, and Walling (1999), RTs were significantly faster for characteristics where dichotomized ratings of the self and ingroup were consistent (M = 1617.15) than for characteristics where dichotomized ratings of the self and ingroup were inconsistent (M = 1759.19), $F(1, 69) = 28.62$, $\eta^2 = .29$, $p < .001$. The magnitude of this effect (142 ms) compares quite favorably with the mean RT difference of 77 ms reported by Smith and Henry (1996). An examination of the means suggests that this effect is largely due to the fact that RTs were fastest for characteristics that were both self-descriptive and ingroup descriptive, whereas RTs were slowest for characteristics that were ingroup descriptive but not self-descriptive.

However, this two-way interaction effect was further qualified by a significant three-way interaction, $F(1, 68) = 4.26$, $\eta^2 = .06$, $p < .05$. Additional tests revealed that the effect was driven by a significant two-way Identification × Ingroup descriptiveness interaction for the self-descriptive characteristics, $F(1, 68) = 6.93$, $\eta^2 = .09$, $p < .01$, whereas the same interaction was not significant for characteristics that were not self-descriptive, $F(1, 68) = .25$, $\eta^2 < .01$, $p > .61$ (see Figure 2). Simple effects tests for the Identification × Ingroup Descriptiveness interaction revealed that RTs for self-descriptive characteristics were virtually equal for low-identification participants, regardless of whether they were descriptive of the ingroup, $F(1, 25) = .02$, $p > .80$. However, high-identification participants responded significantly slower to self-descriptive characteristics that were not descriptive of the ingroup and faster to self-descriptive characteristics that were descriptive of the ingroup, $F(1, 43) = 8.02$, $p < .01$.

Together, these results indicate that the effect observed by Smith and Henry (1996) is largely moderated by ingroup identification, as measured by the IIS. Participants with high IIS scores responded significantly slower to self-descriptive characteristics that were not

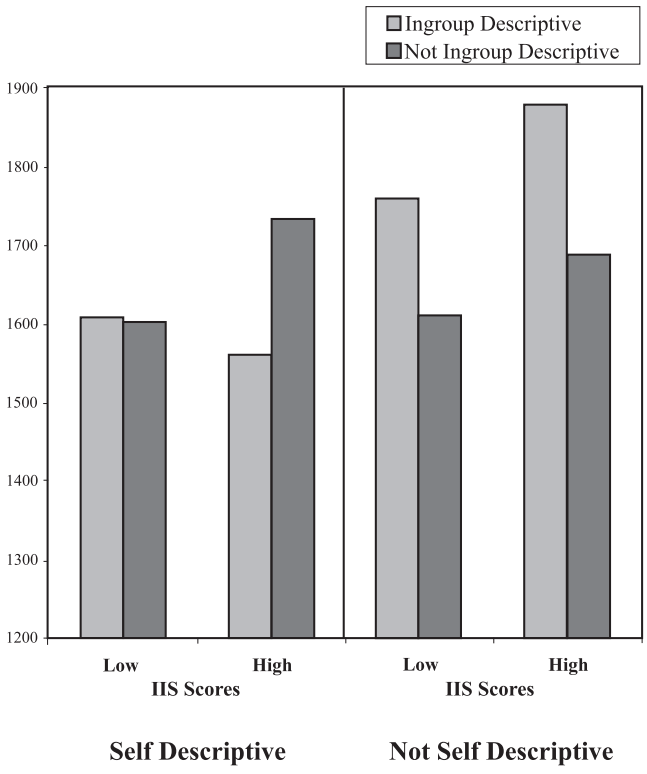

Figure 2 **Mean reaction times for trait characteristics in relation to Self-Descriptiveness, Ingroup Descriptiveness, and Inclusion of Ingroup in the Self (IIS) scores.**

descriptive of the ingroup (i.e., where dichotomized ratings of the self and ingroup were inconsistent) than to characteristics that were both self-descriptive and ingroup descriptive (i.e., where dichotomized ratings of the self and ingroup were consistent). In contrast, participants with low IIS scores showed virtually no difference in reaction times for self-descriptive characteristics that were or were not descriptive of the ingroup (i.e., where dichotomized ratings of the self and ingroup were either consistent or inconsistent). This suggests that people low in ingroup identification (as measured by the IIS) did not regard the ingroup as part of their self-concept in the same manner as those high in ingroup identification. These findings illustrate the importance of studying cognitive representations not only in terms of group membership but also in terms of the degree to which individuals include that group as part of their self-concepts.

At the same time, it is interesting that participants high and low in ingroup identification did not show different patterns of results for characteristics that were not considered self-descriptive. Here, following the pattern uncovered by Smith and his colleagues (Smith, Coats, & Walling, 1999; Smith & Henry, 1996), both high- and low-identification participants simply responded slower to characteristics that produced an inconsistency between ratings of the self and ingroup (i.e., where characteristics were descriptive of the ingroup but not of oneself) than those that produced a consistency between ratings of the self and ingroup (i.e., where characteristics were neither descriptive of the ingroup or oneself).

Overall, however, the results show that participants with high and low IIS scores have different representations of their relationship to the ingroup in that those with low scores regard the group as less a part of themselves than those with high scores. The results demonstrate the usefulness of examining variability in individuals' levels of ingroup identification. Furthermore, the results lend support for conceptualizing ingroup identification as the degree to which the ingroup is included in the self and offer construct validation for the IIS as a measure of ingroup identification.

STUDY 2

Study 2 examined concurrent and discriminant validity of the IIS in relation to other identity measures. To this end, correlations were conducted between the IIS; the four subscales of the CSES (Luhtanen & Crocker, 1992), with items adapted for a specific group membership; and the Personal, Social, and Collective Identity Scales of the Aspects of Identity Questionnaire (AIQ) (Cheek et al., 1994). We expected that the IIS would be strongly associated with those measures pertaining to one's psychological connection to the ingroup (i.e., identity, private esteem, and membership) but not strongly associated with measures concerning others' evaluations of the ingroup (i.e., public esteem). We also expected a positive correlation between scores on the IIS and the AIQ–Collective Identity scale; however, we expected this correlation to be modest, because the AIQ–Collective Identity items reflect a variety of group memberships rather than focusing on membership in a single group. In addition, we did not expect strong associations between the IIS and the AIQ–Social Identity and Personal Identity Scales because the IIS concerns the inclusion of the ingroup in the self and not the inclusion of other individuals (AIQ-Social) or one's unique attributes (AIQ-Personal) in the self.

Study 2 also examined further the construct validity of the IIS. Along with correlating strongly with other measures of ingroup identity, we expected that the IIS would correlate with conceptually related variables. Research from the social identity tradition has identified several variables associated with ingroup identification (see Hinkle et al., 1989; Karasawa, 1991; Tajfel, 1981). Some of these variables are based on cognitive processes, such as individuals' perceptions of themselves as group members. For example, stronger identification with the ingroup is associated with a greater tendency to perceive oneself as a typical group member (e.g., Bond &

Hewstone, 1988; Spears et al., 1997) and a heightened awareness of one's group membership (e.g., Karasawa, 1991). In addition, some variables associated with ingroup identification are more relational in nature, concerning individuals' relationships with other ingroup members. For example, people who feel strongly connected to the ingroup are likely to be influenced by other ingroup members (e.g., Karasawa, 1991; Terry & Hogg, 1996). A strong sense of connection to the ingroup also should correspond with greater feelings of comfort in interacting with other members of that ingroup (e.g., Hinkle et al., 1989). In this study, we predicted that responses to the IIS would be strongly associated with both cognitive and relational variables. Specifically, we expected respondents with higher IIS scores to be more likely to regard themselves as typical group members, to be more aware of their group membership, to be more influenced by other ingroup members, and to be more comfortable with other ingroup members than those with lower IIS scores.

In addition, the present study assessed the ability of the IIS to predict support for collective action. A growing body of research suggests that people who are highly identified with the ingroup report that their group is more deprived relative to other groups (e.g., Petta & Walker, 1992) and show more support for collective action than do people who are less strongly identified with the ingroup (e.g., Abrams, 1990; see Wright & Tropp, in press, for an extended discussion). In the present study, correlations and regression analyses were conducted to examine how the IIS and other identity measures relate to respondents' reports of group deprivation and, in turn, how these measures predict support for collective action.

For this study, the IIS also was adapted for use with a different type of ingroup ("ethnicity") to examine its utility in assessing identification for groups other than gender.

METHOD

Sample

A total of 176 Latino(a) respondents (109 women and 56 men) and 126 African American respondents (81 women and 33 men) were recruited for participation from three universities in Central California. Respondents were contacted through campus organizations, mailings, psychology courses, and individually by members of the research team.

Procedure and Measures

Respondents completed a series of measures of ingroup identification as part of a larger study on group membership, discrimination, and intergroup attitudes. Respondents completed the questionnaires either individually, in small groups in a laboratory, or in their homes.

IIS. The questionnaire included the IIS. Respondents were asked to choose the pair of circles that best represented their level of identification with their ethnic group, with choices ranging from 1 (*no overlap*) to 7 (*high degree of overlap*).

CSES. The CSES (Luhtanen & Crocker, 1992) is a 16-item measure of global collective self-esteem. The CSES is composed of four subscales, concerning one's feelings of worthiness as a member of one's social groups (Membership), one's private regard for one's social groups (Private Collective Self-Esteem), one's assessment of how others regard one's social groups (Public Collective Self-Esteem), and the importance of one's group memberships to one's sense of self (Identity). Item responses range from 1 (*strongly disagree*) to 7 (*strongly agree*). Luhtanen and Crocker (1992) report alpha coefficients between .83 and .88 for the four original collective self-esteem subscales.

To focus specifically on ethnic group membership, items were adapted for the Membership (e.g., "I am a worthy member of the Black/African American community"), Private Collective Self-Esteem (e.g., "I feel good about being Black/African American"), Public Collective Self-Esteem (e.g., "In general, others respect Blacks/African Americans"), and Identity subscales (e.g., "In general, being Black/African American is an important part of my self-image). These adapted subscales show alpha coefficients ranging from .70 to .75 among Latino respondents and from .63 to .72 among African American respondents.

AIQ. The AIQ (Cheek et al., 1994) assesses the importance of various aspects of identity for individuals' self-conceptions. The AIQ includes three scales: a 10-item Personal Identity Scale regarding one's unique attributes and characteristics (e.g., "My thoughts and ideas"), a 7-item Social Identity Scale concerning one's appearance and behaviors in interpersonal interactions (e.g., "My gestures and mannerisms"), and an 8-item Collective Identity Scale pertaining to one's group memberships (e.g., "My feeling of belonging to my community"). Item responses ranged from 1 (*not important to my sense of who I am*) to 5 (*extremely important to my sense of who I am*). Cheek et al. (1994) report alpha coefficients of .84, .86, and .68 for the original Personal, Social, and Collective Identity Scales, respectively.

In the present study, eight personal identity items, six social identity items, and seven collective identity items were used. Respectively, alpha coefficients were .79, .78, and .68 among Latino respondents and .78, .72, and .54 among African American respondents.

Group relative deprivation. Group relative deprivation (RD) was assessed using items involving group-level comparisons between the ethnic ingroup and the dominant White outgroup (see Tropp & Wright, 1999). Two items were included to assess deprivation: a cognitive item, concerning respondents' perceptions of deprivation, and an affective item, regarding respondents' emotional responses to the deprivation they perceived (see Walker & Pettigrew, 1984, for a more detailed discussion). For each item, possible scores ranged between 1 and 9, with higher values corresponding to greater reports of deprivation.

Support for collective action. Support for collective action was measured by an additional survey item ("Members of our ethnic group must stick together and work as a group to change the position of all the members of the group"). Respondents stated how much they agreed with the item on a 9-point scale, where higher scores corresponded to stronger support for collective action.

Additional measures. Four additional items were adapted from other group identification measures (e.g., Bond & Hewstone, 1988; Hinkle et al., 1989; Karasawa, 1991) to examine correlations between scores on the IIS and one's relationship to the ethnic ingroup. One item concerned awareness of ethnic group membership ("How often do you acknowledge or think about the fact that you are Black/African American?"), with responses ranging from 1 (*never*) to 9 (*always*). A second item concerned the degree to which respondents regarded themselves as typical members of their ethnic group ("Would think it accurate if you were described as a typical Black/African American?"), with responses ranging from 1 (*extremely inaccurate*) to 9 (*extremely accurate*). A third item concerned the influence of ingroup members on one's thoughts and behaviors (i.e., "Are there many Blacks/African Americans who influence your thoughts and behaviors?"), with responses ranging from 1 (*very few*) to 9 (*very many*). Finally, the fourth item pertained to relative feelings of comfort or discomfort with other ingroup members (i.e., "Do you feel uneasy with other Blacks/African Americans?"), with responses ranging from 1 (*definitely no*) to 9 (*definitely yes*); responses to this final item were also reverse-scored so that higher scores would correspond to greater comfort with ingroup members.

RESULTS AND DISCUSSION

Responses from Latinos and African Americans were analyzed separately to see whether different patterns of results emerged across the two ethnic groups. First, mean scores on the IIS were compared for Latino and African American respondents. Correlations were then conducted with the IIS and other identity measures to determine which measures are most closely linked to the underlying construct represented by the IIS. Correlations also were used to examine relationships between IIS scores and scores on measures of related constructs. Finally, with the larger Latino sample, regression analyses were conducted using group relative deprivation and the identity measures as predictors for support for collective action.

Mean IIS Scores

Mean IIS scores were 5.29 for Latino respondents and 5.63 for African American respondents, $t(283) = 1.86$, $p = .06$, suggesting slightly greater inclusion of ingroup in the self among African American respondents than Latino respondents. No gender differences in mean IIS scores were found in the Latino sample (Ms = 5.34 and 5.21, respectively), $t(163) = .49$, $p > .50$, or in the African American sample (Ms = 5.61 and 5.67, respectively), $t(112) = .20$, $p > .50$.

Correlations With Other Identity Measures

For both samples, analyses revealed that the IIS was most strongly correlated with the CSES-Membership, CSES-Private, and CSES-Identity subscales (see Table 1). The magnitudes of the correlations also were comparable to the intercorrelations among the CSES-Membership, CSES-Private, and CSES-Identity subscales (ts ranging from –1.313 to 1.18, $p > .05$), with one exception: Among Latinos, the correlations between the IIS and the CSES-Membership and CSES-Identity subscales were stronger than their relationships with each other, $t(171) = 2.06$ and 2.47, respectively, $p < .05$. For both samples, the IIS also was positively correlated with the AIQ–Collective Identity subscale. In contrast, the IIS was not significantly correlated with the CSES-Public subscale or with the AIQ–Personal Identity or Social Identity scales. Together, these results suggest that both samples of respondents interpreted the IIS as a measure of identification and connectedness with the ingroup.

Correlations between the measures were generally stronger for Latinos than for African Americans (zs ranging from 2.86 to 3.19, $p < .05$). Still, the patterns of correlations with other measures were very similar for both Latino and African American respondents, indicating a high degree of consistency in interpretation of the IIS across the two samples.

Correlations With Related Constructs

To better understand what the IIS conceptually represents to respondents, additional analyses were conducted with the IIS and the three identity measures most closely associated with the IIS across both samples (i.e., the CSES Identity, Private, and Membership subscales).[1]

TABLE 1: Correlations Between Inclusion of Ingroup in the Self (IIS) and Additional Identity Measures Among Latinos and African Americans (Study 2)

Scale	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. IIS	—	.39**	.39**	–.08	.38**	–.10	–.14	.25**
2. CSES-Membership	.64**	—	.42**	–.09	.50**	.23**	–.08	.28**
3. CSES-Private	.65**	.67**	—	.00	.44**	.26**	–.12	.20**
4. CSES-Public	.00	.13	.07	—	–.30**	–.01	.01	.12
5. CSES-Identity	.66**	.54**	.60**	.05	—	.24**	–.05	.19*
6. AIQ-Personal	.03	.10	.08	–.18*	.10	—	.14	.40**
7. AIQ-Social	–.13	–.01	.01	–.03	–.06	.38**	—	.25**
8. AIQ-Collective	.44**	.38**	.35**	–.07	.41**	.33**	.26**	—

NOTE: CSES = Collective Self-Esteem Scale, AIQ = Aspects of Identity Questionnaire. Correlations for Latino respondents are below the diagonal line, $N = 168$ to 175. Correlations for African American respondents are above the diagonal line, $N = 117$ to 126.
*$p < .05$. **$p < .01$.

Correlations were conducted between these identity measures and the cognitive and relational variables associated with ingroup identification (see Table 2).

The IIS was positively correlated with Awareness of Group Membership and Typicality, indicating that respondents with higher IIS scores were more aware of their group membership and were more likely to consider themselves as typical group members than were those with lower IIS scores. In addition, the IIS was positively correlated with Influence of Ingroup Members and Comfort With Ingroup Members. Respondents with higher IIS scores were more likely to state that ingroup members influenced their thoughts and behaviors and that they felt comfortable with other ingroup members, as compared with respondents with lower IIS scores.

In most cases, the correlations between the IIS and these single-item measures were in the same direction and comparable in magnitude to the correlations between the single-item measures and the three other identity measures (*t*s ranging from –1.81 to 1.77, $p > .05$). However, in each case where a significant difference was obtained, the IIS showed stronger relationships with the cognitive and relational variables than did the other ingroup identity measures. Specifically, among Latinos, the correlation between Awareness of Group Membership and the IIS was significantly stronger than its correlation with the CSES-Identity subscale, $t(171) = 1.99$, $p < .05$, the CSES-Private subscale, $t(171) = 2.42$, $p < .05$, and the CSES-Membership subscale, $t(171) = 3.54$, $p < .001$. In addition, the correlation between Comfort With Ingroup Members and the IIS was significantly stronger than its relationship with the CSES-Private subscale, $t(171) = 2.12$, $p < .05$. Finally, among African Americans, the correlation between Typicality and the IIS was stronger than its relationship with the CSES-Membership subscale, $t(171) = 2.24$, $p < .05$.

In sum, scores on the IIS were strongly associated with both cognitive and relational variables known to be associated with ingroup identification, demonstrating relationships at least as strong as those obtained with other ingroup identity measures.

TABLE 2: Correlations Between Identity Measures and Perceptions of Self as Group Member and Relations With Ingroup Members (Study 2)

	IIS	*CSES-Identity*	*CSES-Private*	*CSES-Membership*
Perceptions of self as group member				
Awareness of group membership				
Latinos	.66***	.57***	.55***	.49***
African Americans	.46***	.39***	.37***	.36***
Consider self as typical group member				
Latinos	.38***	.28***	.31***	.32***
African Americans	.25**	.08	.11	.03
Relations with ingroup members				
Influence of ingroup members				
Latinos	.36***	.47***	.27***	.30***
African Americans	.32***	.42***	.16	.28**
Comfort with ingroup members				
Latinos	.37***	.26***	.27***	.34***
African Americans	.33***	.31***	.36***	.40***

NOTE: IIS = Inclusion of Ingroup in the Self, CSES = Collective Self-Esteem Scale. For correlations among Latino respondents, $N = 168$ to 175. For correlations among African American respondents, $N = 117$ to 126.
*$p < .05$. **$p < .01$. ***$p < .001$.

Predicting Support for Collective Action

Additional analyses were conducted with the larger Latino sample to examine the construct validity of the IIS within a broader theoretical model. Other research has shown that both ingroup identification and group relative deprivation predict support for collective action (e.g., Abrams, 1990; Wright & Tropp, in press). Thus, both the ingroup identity measures and the Group RD

TABLE 3: Summary of Hierarchical Regression Analysis Using Group Relative Deprivation and Identity Measures as Predictors for Support for Collective Action (Study 2)

		Step 1			*Step 2*		
Predictor Variable	r	B	β	*sr*	B	β	*sr*
Group relative deprivation	.45***	.53***	.39***	.38***	.50***	.37***	.35***
Ingroup identification							
IIS	.32***	.25**	.21**	.20**	.16	.14	.09
CSES-Identity	.33***				.16	.11	.08
CSES-Private	.29***				.16	.09	.06
CSES-Membership	.21**				–.11	–.07	–.05
R^2			.25***			.26	
R^2 change			.25***			.01	
F change			26.07***			.86	

NOTE: IIS = Inclusion of Ingroup in the Self, CSES = Collective Self-Esteem Scale. *r* = correlation coefficient, *B* = unstandardized regression coefficient, β = standardized regression coefficient, sr = semipartial correlation.
*$p < .05$. **$p < .01$. ***$p < .001$.

measures were used to predict support for collective action.

Because scores on the cognitive and affective Group RD items were highly correlated with each other, $r(171) = .73$, $p < .001$, their scores were averaged and this average was used in data analysis. Preliminary correlational analyses showed that Group RD was positively associated with scores on the IIS, $r(164) = .26$, $p < .001$, as well as scores on the CSES-Identity subscale, $r(171) = .27$, $p < .001$, the CSES-Private subscale, $r(171) = .25$, $p < .001$, and the CSES-Membership subscale, $r(171) = .20$, $p < .01$.

Support for collective action was positively correlated with ingroup identity as measured by the IIS, $r(162) = .32$, $p < .001$, the CSES-Identity subscale, $r(162) = .33$, $p < .001$, the CSES-Private subscale, $r(162) = .29$, $p < .001$, and the CSES-Membership subscale, $r(162) = .21$, $p < .01$.

A hierarchical regression analysis was then conducted using the ingroup identity and Group RD measures as predictors for support for collective action. The IIS and the Group RD measure were entered at the first stage of the regression analysis to see whether they would each uniquely account for a significant portion of the variance in support for collective action (see Table 3). The overall model was significant at this stage, $R^2 = .25$, $F(2, 160) = 26.07$, $p < .001$, and both Group RD and the IIS accounted for significant and unique portions of the variance in support for collective action. In the second stage, the CSES-Identity, CSES-Private, and CSES-Membership subscales were added to the model to test whether these measures could account for variance above and beyond that accounted for at the first stage. The R^2 increment was not significant, $F_{change}(5, 157) = .86$, $p > .45$, indicating that that the three additional ingroup identity measures did not significantly account for variance in support for collective action beyond that accounted for at the first stage of the analysis. It also should be noted that once the other ingroup identity measures were entered at the second stage, the IIS no longer uniquely accounted for a significant portion of the variance in support for collective action. This finding suggests that rather than accounting for unique portions of the variance, the IIS and the other ingroup identity measures may in fact be accounting for overlapping portions of the variance in support for collective action, which in turn would lend additional support for the IIS as a measure of ingroup identification.

Overall, many important relationships were found between the IIS and measures of group relative deprivation and support for collective action. First, the IIS showed positive correlations with the relative deprivation and collective action measures. Regression analyses also revealed that the IIS predicted a significant and unique portion of the variance in support for collective action, separate from that accounted for by the Group RD items. Most important, however, once the IIS was entered into the model, the subsequent inclusion of other ingroup identity measures did not significantly improve the model.

Summary

Together, the findings from Study 2 establish concurrent, discriminant, and construct validity for the IIS as a measure of ingroup identification. The IIS showed close relationships with other ingroup identity measures while showing weak relationships with measures of other constructs. The IIS also was as powerful as several multi-item identity measures in predicting support for collective action and in correlating with other related concepts. Furthermore, because the IIS is designed to visually represent the degree to which the ingroup is included in the

self, the findings provide support for the value of this conceptualization of ingroup identification.

STUDY 3

A third study investigated concurrent validity for the IIS while also exploring what ingroup identification represents among members of the ingroup. Along with replicating several of the correlations from Study 2, the study extended Study 2 in two important ways. The study included a separate three-item measure of identification modeled after those commonly used in the social identity literature (see Brown et al., 1986; Ellemers et al., 1997; Hinkle et al., 1989; Kelly, 1988) to allow for additional correlations between the IIS and popular identity measures. Study 3 also examined specific ways in which people feel connected to their groups and how each of the identity measures correlated with these variables.

METHOD

Sample

Respondents were recruited for participation as part of a larger study on group membership and intergroup contact. Respondents were undergraduate student volunteers who received monetary compensation for their participation. Because there were no substantial differences in patterns of results for Latino(a) and African American respondents in Study 2, respondents were recruited from a variety of racial and ethnic minority groups and their responses were pooled for data analysis. Of the 88 respondents, 41% were Asian, 28% were Latino(a), 5% were African American, 2% were East Indian, 8% were of mixed heritage, and 12% were from other ethnic backgrounds.

Procedure and Measures

After receiving verbal instructions, respondents completed questionnaires individually in large group settings.

IIS. Respondents completed the IIS (identical in wording to Study 2).

CSES. Respondents also completed adapted versions of the CSES-Identity and CSES-Private subscales, adapted for ethnic group membership. Due to low and inconsistent correlations between the positively and negatively worded items from these subscales, only the positively worded items were retained for analysis. Thus, in this study, the CSES-Identity subscale consisted of two positively worded items and the CSES-Private subscale consisted of two positively worded items. As in Study 2, responses to these items ranged from 1 (*strongly disagree*) to 9 (*strongly agree*). Overall, alpha coefficients of reliability were .87 for the two-item CSES-Identity subscale (.85 among Latinos, .67 among Asians, and .96 among all others) and .72 for the two-item CSES-Private subscale (.60 among Latinos, .95 among Asians, and .70 among all others).

Group identification. An additional measure of group identification was included in this study, modeled after those commonly used by researchers in the social identity tradition (e.g., Brown et al., 1986; Ellemers et al., 1997; Hinkle et al., 1989). In three separate items, respondents were asked the degree to which they (a) feel strong ties to the ethnic ingroup, (b) see themselves as ethnic group members, and (c) identify with the ethnic ingroup.[2] Responses to these items ranged from 1 (*strongly disagree*) to 9 (*strongly agree*). Overall, the alpha coefficient of reliability for the three-item measure was .77 (.80 among Latinos, .87 among Asians, and .67 among all others).

Closeness with ingroup members. In addition, three items were adapted from the Psychological Acculturation Scale (Tropp, Erkut, Alarcon, Garcia Coll, & Vazquez, 1999), concerning different ways in which respondents may feel close to members of the ethnic ingroup and the dominant outgroup. Specifically, respondents were asked (a) With whom do you share most of your beliefs and values? (b) With whom do you have the most in common? and (c) Who understands you best? Item responses ranged from 1 (*only members of my ethnic group*) to 9 (*only Whites*). Responses were reverse-scored for data analysis so that higher scores would correspond with greater closeness to ethnic ingroup members.

RESULTS AND DISCUSSION

Correlations Among IIS and Other Identity Measures

Correlations were conducted between the IIS and other measures of ingroup identity to see how strongly they related to each other. The IIS was positively and strongly correlated with the three-item Group Identification measure, $r(87) = .68$, $p < .001$, and the CSES-Identity subscale, $r(87) = .61$, $p < .001$.[3] Furthermore, the correlations between the IIS and the Group Identification and CSES-Identity measures also were stronger than their correlations with each other, $r(87) = .47$, $t(87) = 2.04$ and 2.91, respectively, $p < .05$. Because the IIS shares more in common with each of these scales than they share with each other, these results suggest that the IIS may capture the core construct of ingroup identification.

The IIS also was significantly correlated with the CSES-Private subscale, $r(87) = .36$, $p < .01$, although this relationship was not as strong as its relationships with the Group Identification and CSES-Identity measures, $t(87) = 3.67$ and 2.79, $p < .01$. It is somewhat surprising that the CSES-Private subscale did not relate as strongly to the IIS

as it did in Study 2. In Study 2, correlations between the IIS and the CSES-Identity and CSES-Private subscales were comparable (*r*s = .66 and .65 among Latinos and .38 and .39 among African Americans, respectively). In the present study, the correlation between the IIS and the CSES-Private subscale was lower ($r = .36$) as compared with the correlation between the IIS and the CSES-Identity subscale ($r = .61$). These results reinforce the idea that group identities can include several distinct yet related dimensions (see Luhtanen & Crocker, 1992; Sellers et al., 1997) and that one's psychological connectedness to the ingroup is not necessarily equal to one's evaluations of the ingroup.

Correlations Between Identity Measures and Closeness to Ingroup Members

Correlations also were conducted to compare patterns of relationships between the identity measures and types of closeness to ingroup members. Table 4 summarizes the results from these analyses. IIS responses were strongly and positively associated with each type of closeness to ingroup members. People with higher IIS scores felt more strongly that they share beliefs and values with ingroup members, have more in common with ingroup members, and that other ingroup members understand them than do people with lower IIS scores. The results also revealed positive relationships between types of closeness to ingroup members and responses to the Group Identification and CSES-Identity scales. In all cases, the magnitudes of these relationships were not significantly different from those between the types of closeness and the IIS, *t*s ranging from –.29 to 1.79, $p > .05$. In contrast, responses to the CSES-Private items were generally weakly, and not significantly, related to the three types of closeness to ingroup members.

In sum, the results indicate that the IIS taps central aspects of ingroup identification assessed by other popular measures and shows strong relationships with measures of closeness to ingroup members, thereby establishing concurrent validity for the IIS as a measure of ingroup identification. Correspondingly, the results lend support for the conceptualization and assessment of ingroup identification in terms of the degree to which the ingroup is included in the self.

TABLE 4: Correlations Between Identification Measures and Types of Closeness to Ingroup Members (Study 3)

	Shares Beliefs and Values	*Have Most in Common*	*Understands Your Way of Thinking*
IIS	.48***	.52***	.41***
Group identification	.39***	.54***	.40***
CSES-Identity	.43***	.37***	.27**
CSES-Private	.14	.13	.01

NOTE: IIS = Inclusion of Ingroup in the Self, CSES = Collective Self-Esteem Scale. $N = 86$ to 88.
*$p < .05$. **$p < .01$. ***$p < .001$.

STUDY 4

Estimates of internal consistency cannot be obtained to demonstrate the reliability of the IIS because it is a single-item measure (see Aron et al., 1992). Therefore, Study 4 was designed to test the reliability of the IIS by correlating responses to the IIS across two testing sessions (i.e., test-retest reliability). We believe that although the situational salience of group memberships may vary, individuals bring relatively stable differences in identification to the situation and, therefore, differences in identification are likely to endure across situations and time. Thus, we expected that respondents' IIS scores would be highly correlated across the two testing sessions.

METHOD

Sample

Respondents participated as part of a larger study on ingroup identification and responses to discrimination. Respondents were enrolled in undergraduate psychology courses and volunteered to participate in exchange for research participation credit. Respondents were recruited from a variety of racial and ethnic minority groups, and their responses were pooled for data analysis. A total of 154 respondents were recruited, but 11 respondents were dropped from the study because they failed to complete all of the relevant measures. Of the final sample of 143 respondents, 45% were Latino(a), 43% were Asian, 6% were African American, 6% were Middle Eastern, and 1% were Native American.

Procedure

After receiving verbal instructions, respondents completed a first survey during a mass pretest in a large classroom setting. Respondents were subsequently contacted individually and asked to participate in the study. Those who agreed participated in the study between 1 and 3 weeks after the pretest, a time frame comparable to that used by Aron et al. (1992, Study 1). At the beginning of the testing session, respondents received a series of written and audiotaped instructions and then completed a survey individually in a laboratory setting.

Measures

IIS. In addition to a variety of measures, the IIS was included in both the pretest and the survey and was identical to the version used in Study 3.

RESULTS AND DISCUSSION

Mean IIS Scores

Mean scores on the IIS were analyzed to check for differences in general levels of ingroup identification across the first and second testing sessions. Mean scores on the IIS did not differ significantly between the first and second testing sessions (*M*s = 4.52 and 4.55, respectively), $t(142) = -.31$, $p = .76$.

Test-Retest Reliability

Correlations were then conducted between IIS scores from the two testing sessions to examine test-retest reliability. Overall, test-retest reliability was high, $r(143) = .76$, $p < .001$.

Results from Study 4 revealed little variation in individuals' responses to the IIS across the two testing sessions. Still, the correlation between IIS scores from the two testing sessions was not perfect, indicating some variability in responses across the two testing sessions. This finding is to be expected given that respondents were engaged in a variety of life experiences between testing sessions and the two sessions took place in very different settings. The variability may be due to measurement error produced by these and other contextual factors or it may represent slight changes in respondents' actual feelings of identification with the ingroup over time. Nonetheless, respondents' IIS scores were strikingly similar across the two testing sessions, suggesting that the IIS is reliable and that the degree to which individuals include the ingroup in the self endures across situations.

GENERAL DISCUSSION AND CONCLUSIONS

In this article, we present a conceptualization of ingroup identification as the degree to which the ingroup is included in the self, and we have tested the utility of the IIS as a single-item measure for this concept. Altogether, results from the four studies indicate that the IIS is a valid and reliable measure for assessing the inclusion of ingroup in the self, providing support for this conceptualization of ingroup identification. Evidence from the reaction time data in Study 1 suggested that cognitive representations of the self and the ingroup are closely connected among respondents with high IIS scores, whereas these representations are less related among those with lower IIS scores. Thus, we extend previous research by Smith and his colleagues to show that individual differences in the degree to which the ingroup is included in the self moderate individuals' perceptions as group members.

Results from other studies provided evidence for the concurrent and discriminant validity of the IIS, and the reliability of the IIS, as a measure of ingroup identification. The IIS showed close and consistent relationships with items from other ingroup identity measures and only weak relationships with measures of distinct constructs, such as the perceived public approval of one's ingroup and personal and interpersonal aspects of identity. In some cases, relationships between the IIS and other ingroup identity measures were even stronger than their relationships with each other. Compared with other ingroup identity measures, the IIS showed equally strong associations with different types of closeness to ingroup members, such as sharing beliefs and values with ingroup members and feeling that one is understood by ingroup members. In addition, responses to the IIS were reliable over time, consistent with the view that individuals' general levels of identification would endure across situations.

Further evidence also was found for the construct validity of the IIS. The IIS was strongly related to many cognitive and relational variables associated with ingroup identification, such as the tendency to be aware of one's group membership, to perceive oneself as a typical group member, to be influenced by other ingroup members, and to feel comfortable with other ingroup members. Indeed, many relationships between these cognitive and relational variables and the IIS were stronger than their relationships with other ingroup identity measures. The IIS also predicted support for collective action as well as the other ingroup identity measures. It also should be noted that these varied results were obtained using a number of different samples and target ingroups (e.g., ethnicity, gender), demonstrating the versatility of the IIS for assessing variability in the inclusion of ingroup in the self among members of many different groups.

Together, the results suggest that the IIS functions similarly to—if not better than—other measures for assessing identification with the ingroup. Moreover, we feel that due to its unique qualities, the IIS may be a preferred means of assessing ingroup identification in many circumstances. Its visual representation appears to capture the essence of interconnectedness between self and ingroup that we regard as the underlying basis of ingroup identification. As a single-item measure, the IIS also can be adapted easily and administered quickly for studies involving membership in many different groups. In addition, as suggested by some recent findings (e.g., Uleman, Rhee, Bardoliwalla, Semin, & Toyama, 2000), its visual representation may aid researchers in maintaining consistency in measurement across samples from different ethnolinguistic groups, where accurate translations of instruments are difficult to achieve.

More fundamentally, however, the development of the IIS and the research presented here contributes to the merging of perspectives from a growing body of research on ingroup identification. Looking beyond

self-categorization, contemporary perspectives are beginning to consider how variability in ingroup identification influences individuals' perceptions and experiences as group members (e.g., Doosje et al., 1995; Petta & Walker, 1992; Smith & Tyler, 1997; Spears et al., 1997). We believe that defining this variability as the degree to which the ingroup is included in the self expresses the basic interconnectedness between self and ingroup that underlies these emerging views on ingroup identification.

NOTES

1. The Aspects of Identity Questionnaire (AIQ)–Collective subscale was excluded from these analyses because its items pertain to membership in a variety of groups, whereas the current versions of the Inclusion of Ingroup in the Self (IIS) and the Collective Self-Esteem Scale (CSES) subscales focus on membership in a specific group.

2. A fourth item often used by Ellemers, Spears, and Doosje (1997) and others (i.e., "I am pleased to be a member of my group") was excluded because it overlaps considerably with an item from the CSES-Private subscale (i.e., "I am glad to be a member of my group").

3. Correlations between the IIS and other ingroup identity measures also were conducted on an item-by-item basis to determine which items were most closely associated with the IIS and to ensure that any overlap or similarity in item wordings could not fully account for correlations between the measures. Responses to the IIS were strongly associated with responses to each of the items from the Group Identification and CSES-Identity measures. In particular, IIS scores were closely related to seeing oneself as a group member, $r(87) = .58$, $p < .001$, identifying with the ingroup, $r(87) = .57$, $p < .001$, and regarding one's membership in the ingroup as an important part of one's self-image, $r(87) = .60$, $p < .001$.

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