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# Social Identity Complexity and Outgroup Tolerance

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*Social identity complexity refers to the way in which individuals subjectively represent the relationships among their multiple ingroup memberships. More specifically, individuals with low social identity complexity see their ingroups as highly overlapping and convergent, whereas those with high complexity see their different ingroups as distinct and cross-cutting membership groups. The present study tested the hypothesis that perceived overlap among ingroup memberships would be negatively related to ingroup inclusiveness and tolerance for outgroups, such that individuals with high overlap (low complexity) would be less tolerant and accepting of outgroups in general than those with low overlap (high complexity). Results from a telephone interview survey of adult residents of the state of Ohio supported this hypothesis. Individual differences in complexity of perception of their national, religious, occupational, political, and recreational social identities were systematically related to their attitudes toward ethnic outgroups and diversity.*

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**Keywords:** *multiple social identities; group membership; ingroup inclusiveness; tolerance; outgroup attitudes*

Recently, researchers of group processes have expressed increasing interest in the fact that most individuals are simultaneously members of multiple social groups. Although there has been some research on the effects of cross-cutting social categories on ingroup bias (see Brewer, 2000; Migdal, Hewstone, & Mullen, 1998; Urban & Miller, 1998), the majority of research on social identity and intergroup relations has been conducted in the context of a single ingroup-outgroup categorization. Most researchers who study social identification agree in principle that people have multiple group identities (e.g., Stryker & Statham, 1985; Tajfel, 1978; for a review, see Deaux, 1996) but there has been relatively little research on the nature of the relationships among a particular person's numerous ingroup identities or on the effects of holding multiple social identities on intergroup attitudes in general.

As one step toward understanding the structure of multiple social identities, Roccas and Brewer (2002) introduced the concept of social identity complexity. The idea behind the complexity construct is that it is not only how many social groups an individual identifies with that matters but, more important, how those different identities are subjectively combined to determine the overall inclusiveness of the individual's ingroup memberships. More specifically, Roccas and Brewer proposed that multiple social identities can be represented along a continuum of complexity and inclusiveness, reflecting the degree to which different identities are both differentiated and integrated in the individual's cognitive representation of his or her group memberships. At the low end of the complexity dimension, the individual defines the ingroup as the intersection of all of his or her group identities, creating a single, highly exclusive identity category (e.g., female Republican college professors) whereby others who do not share all of the same memberships are effectively outgroup members. At the high end of the social identity complexity dimension, the individual recognizes that each of his or her group memberships incorporates a different set of people as ingroup members and the combined representation is the sum of all of these group identities—more inclusive than any one ingroup identity considered alone.

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*Multiple Ingroup Memberships:  
Objective Versus Subjective Representations*

Roccas and Brewer's (2002) theory of social identity complexity is intended to apply primarily to an individual's membership in multiple, large organizations and social categories. In contrast to small, local group memberships, identification with large collectives connects the individual to others by virtue of their common attachment to the symbolic group (Prentice, Miller, & Lighthouse, 1994) rather than by their personal relationships. The actual degree of overlap between social categories of which a person is simultaneously a member may vary considerably. Some groups may be completely embedded in others (e.g., all Catholics are Christians), some may be completely orthogonal (e.g., Muslims and women), and some may overlap only slightly (e.g., corporate executives and women). When there is extensive overlap between ingroups defined by different dimensions of categorization, identification is relatively simple—the individuals who constitute the ingroup versus outgroups are the same for any categorization. If almost all Mormons live in Utah and almost all residents of Utah are Mormons, for instance, then the ingroup category based on religion comprises the same individuals as the ingroup based on state residence. In this hypothetical situation, for a resident of Utah, all other residents are seen as ingroup members whether religion or state of residence is the basis of ingroup-outgroup categorization.

When ingroups defined by different dimensions of categorization overlap only partially, however, the implications for social identification become more complex. In this case, some of those who are fellow ingroup members on one dimension are simultaneously outgroup members on the other. Consider the case of a woman who is a high-ranking manager: when the social context emphasizes the professional identity (e.g., a management conference), she is likely to perceive a male colleague as an ingroup member. Nonetheless, she may be aware that in different circumstances (circumstances that emphasize her identity as a woman) that same colleague is an outgroup member. It is these situations of cross-cutting group memberships—where the constitution and meaning of different ingroups do not completely converge—that are of interest to us here. How do individuals construct their social identities in relation to multiple, nonconvergent, ingroup memberships?

The actual complexity of multiple, partially overlapping, group memberships may or may not be reflected in the individual's subjective representation of his or her multiple identities. For instance, a woman who is both White and Christian may think of her religious ingroup as composed primarily of White people, even though, objectively, there are many non-White Christians. Con-

versely, she may think of her racial ingroup as largely Christian, despite the fact that there are many Whites who embrace other religions. By reducing the subjective inclusiveness of both ingroups to their overlapping memberships, the individual maintains a relatively simplified identity structure. When an individual acknowledges, and accepts, the nonoverlapping memberships of her multiple ingroups, her subjective identity structure is both more inclusive and more complex.

Social identity complexity is the product of a process of recognizing and interpreting information about one's own ingroups. Having a complex social identity is dependent on two conditions: first, awareness of more than one ingroup categorization, and second, recognition that the multiple ingroup categories do not converge. Reconciling the incongruences that are implied by this nonconvergence requires cognitive resources. Thus, similar to other forms of integrative complexity (Tetlock, Skitka, & Boettger, 1989; Woike & Aronoff, 1992), social identity complexity is subject to situational and motivational determinants as well as individual differences in cognitive style.

The conceptualization of social identity complexity derives from models of category representations. On one hand, social categories can be represented by the prototypical attributes of their members. Prototypes are abstracted representations of the central tendency, average or typical values of the members of a category (Smith, 1998). Based on this aspect of category representation, one way in which relationships between the ingroups of which a person is simultaneously a member can be conceptualized is in terms of the extent of perceived similarity between the prototypical attributes of those groups. On the other hand, social categories can also be represented in terms of category boundaries that determine who are considered group members. In line with this type of model, another way the interrelationships between ingroups of which a person is simultaneously a member can be conceptualized is in terms of the degree of perceived overlap between the memberships of the various ingroups. It is this latter conceptualization of multiple category representations that will be the focus of the present article.

*Operationalizing the Social Identity  
Complexity Construct*

Low social identity complexity means that multiple identities are subjectively embedded in a single ingroup representation, whereas high complexity involves acknowledgement of differentiation and difference between ingroup categories. More specifically, complexity involves understanding what people mean when they say that I am both "A" and "B." Semantics make it difficult to distinguish whether the "and" in this self-

description refers to the intersection of A and B (converging identities) or the union of A and B as two different ingroups. Because of this semantic ambiguity, attempts to assess this distinction through direct self-report are likely to be met by confusion or social desirability biases. Roccas and Brewer (2002) suggested a measurement procedure to get at the subjective representation more indirectly by assessing how the individual perceives the degree of overlap between the membership of different ingroup identities. Through such indirect assessment, we can attempt to identify where an individual falls between the extremes of identity convergence or identity complexity when two or more ingroup memberships are made salient.

In this methodology, social identity complexity is the perceived overlap in the composition of group memberships. Some persons may perceive the different groups to which they belong as containing the same members. The groups Catholic and Italian could serve as an example. Although these two groups do not objectively share all of their members (many Italians are not Catholic and many Catholics are not Italian), some people may perceive them as highly overlapping: When they think about Italians they think about Catholics, and persons of different religious faith are not considered "real" Italians. Such high perceived overlap in group memberships implies that the different ingroups are actually conceived as a single convergent social identity. In this case, the subjective boundaries of both ingroups are defined in such a way that they contain only those who share the other identity as well. On the other hand, when overlapping membership between various ingroups is perceived to be relatively small, the boundaries of each ingroup are defined in such a way that they include members who do not share the other identities. In this case, the combined group identities are larger and more inclusive than any of the ingroups alone. In sum, the more a person perceives the groups to which he belongs as sharing the same members, the less complex is his social identity.

Operationalizing social identity complexity as the sum of the perceived overlap among pairs of ingroup memberships, Roccas and Brewer (2002) reported results from several preliminary studies designed to assess the construct validity of this measure. In studies conducted in the United States and in Israel, they found that the shared membership index of social identity complexity was correlated as anticipated with individual value orientations (Schwartz, 1992) such that high scores (low complexity) were associated with high importance placed on conservatism and power values, whereas low scores (high complexity) were associated with universalism and openness to change. Also consistent with theoretical expectations, membership overlap was found to be correlated with anxiety mood state and

to increase under conditions of experimentally induced stress. Thus, convergent validity of the overlap measure of social identity complexity was established across a number of related constructs.

#### *Social Identity Complexity and Tolerance*

Roccas and Brewer (2002) also speculated that social identity complexity (as represented by perceived overlap among ingroup memberships) would be associated with tolerance for outgroups in general. Social identity complexity is based on chronic awareness of cross-categorization in one's own social group memberships and those of others. A simple social identity is likely to be accompanied by the perception that any individual who is an outgroup member on one dimension is also an outgroup member on all others. In contrast, if an individual is aware that one of his ingroups only partly overlaps with any other of his ingroups, then we assume that he is also aware that some of his ingroup members have crossed group memberships: They are ingroup members on one dimension but are simultaneously outgroup members on others. Making salient that an outgroup member on one category dimension is an ingroup member on another decreases bias by comparison with instances where the latter information is not available (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993).

There are a number of theoretical reasons why a complex representation of ingroup categorization should influence intergroup attitudes and behavior in ways that reduce bias and discrimination. First, cross-cutting distinctions make social categorization more complex and reduce the magnitude of ingroup-outgroup distinctions. According to social categorization theory (Deschamps & Doise, 1978; Vanbeselaere, 1991), processes of intracategory assimilation and intercategory contrast counteract each other when categories are cross-cutting. Thus, the effects of intercategory accentuation are reduced or eliminated and differences between groups are minimized (or no greater than perceived differences within groups). This undermines the cognitive basis of ingroup bias. Second, partially overlapping group memberships reduce the evaluative significance for the self of intergroup comparisons, thereby undermining the motivational base for intergroup discrimination (Vanbeselaere, 1991). Third, multiple group memberships reduce the importance of any one social identity for satisfying an individual's need for belonging and self-definition (Brewer, 1991), again reducing the motivational base for ingroup bias.

Finally, principles of cognitive balance (Heider, 1958; Newcomb, 1963) are also brought into play when ingroups and outgroups have overlapping membership. When another person is an ingroup member on one category dimension but belongs to an outgroup in another

categorization, cognitive inconsistency is introduced if that individual is evaluated positively as an ingroup member but is also associated with others who are evaluated negatively as outgroup members. In an effort to resolve such inconsistencies, interpersonal balance processes should lead to greater positivity toward the outgroup based on overlapping memberships. The processes here are similar to those underlying the "extended contact effect" (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Having someone connected to the self (i.e., a friend or an ingroup member) associated with an outgroup should reduce negativity toward that outgroup.

In sum, both cognitive and motivational factors lead us to predict that complex social identities will be associated with reduced ingroup favoritism and increased tolerance and positivity toward outgroups in general.

Roccas and Brewer (2002) also reported results from preliminary studies that were consistent with this hypothesis. In a questionnaire study conducted among a small sample of American college students, respondents rated a series of target persons described by category memberships. One of the targets was a member of an outgroup defined by race, one was a member of an outgroup defined by religion, and one was a member of an outgroup defined both by race and religion. (The descriptions were tailored for each participant according to his or her own race and religion.) Tolerance for outgroup members was computed by averaging the responses to three targets. As expected, tolerance toward outgroup members was higher for persons who had lower scores (higher complexity) on the overlap measure,  $r = -.32$ ,  $p = .01$ . Similarly, in a sample of Israeli students, overlap complexity was found to be positively related to readiness to engage in social contact with outgroup members (recent Russian immigrants),  $r = -.30$ ,  $p < .05$ .

Although these preliminary studies provided initial evidence for the hypothesized relationship between complexity of representation of one's own ingroups and attitudes toward outgroups (with no shared membership), the studies were limited by the nature and size of the samples involved. In many ways, college students are not the ideal population for studying multiple identities and identity complexity. First, most college students (at least those who enter college directly from secondary schools) have had limited time or opportunity to become members of a diversity of social groups and organizations. Second, college age is a period in which social identities are in flux, and students may not yet have formed stable representations of what their most important group identities are or how they are interrelated.

By contrast, a population of older adults is likely to have acquired a wider range of social group identities

across domains and to have achieved a relatively stable cognitive representation of their ingroups. For these reasons, the present study was conducted to test the predicted positive relationship between social identity complexity and intergroup attitudes in a survey of noncollege student adults. In addition to providing a larger sample across a wider age range than any previous studies, the present survey provided an opportunity to assess the effects of different types of social category memberships (e.g., occupational identities, sports identities), with the combination of identity groups determined idiosyncratically for each participant. This survey was also the first to measure the relationship between identity complexity and attitudes toward public policy issues relevant to social group memberships, such as affirmative action and multiculturalism.

#### METHOD

A survey of Ohio state residents was conducted in two phases. The first phase involved a mail questionnaire sent to a random sample of households in the state of Ohio. The second phase was a follow-up, computer-assisted telephone interview (CATI) with a selected subsample of respondents to Phase 1. The mail survey served as a screening instrument and the telephone interviews provided the primary data of interest.

##### *Mail Questionnaire*

A written questionnaire was designed to elicit information on respondents' important group memberships. In addition to some basic demographic information, the questionnaire contained a series of probes regarding membership in various types of organizations or social groups. For instance, one probe asked the respondent whether he or she belonged to any religious groups. If the answer was yes, then the respondent was asked to specify (open-ended) with which religion or religious organizations he or she was affiliated. Similar probes were provided for other domains of social life, including political organizations, fraternal organizations, occupational identities, recreational and sports groups, and ethnic/national identities.

Once the respondent had gone through all of the membership probes, he or she was asked to review all of the groups and organizations that had been listed in the previous sections of the questionnaire and to select three to five groups that were "most important." Finally, the respondent was asked to indicate whether he or she would be willing to be contacted for a later telephone interview and, if so, to provide their name and telephone number.

The questionnaire was mailed to 1,500 addresses randomly drawn from telephone directory listings for the

state of Ohio. The mailing was addressed to the name of the head of household (based on directory listing) but a cover letter indicated that any member of the household who was age 21 or older was eligible to respond. A total of 497 completed questionnaires were returned from eligible respondents (291 men, 206 women). Approximately 300 of these indicated their willingness to be included in the follow-up interview survey.

#### *Selection of Telephone Interview Sample*

Of the questionnaire respondents who agreed to be interviewed, 242 were selected for inclusion in the second phase of the study. Volunteers were selected if they had listed at least four different group memberships (including America), across different domains, among those “most important” to them.<sup>1</sup> The selected respondents were then contacted by phone by trained interviewers from the Ohio State University Center for Survey Research. A total of 222 interviews were successfully completed and constituted the final sample prior to data analysis.

#### *Interview Content*

The content of the CATI survey instrument was tailored for each respondent to include the names of the specific groups that the respondent had generated in the preliminary questionnaire. All respondents had indicated that they were U.S. citizens and included this among their important identities, so “American” was the first group specified for all the interviews. Three other groups were taken from those listed specifically by the respondent (using the respondent’s own label for the group name). Questions regarding these four group memberships were generated to assess social identity complexity.

*Overlap complexity measure.* In one section of the interview, the respondent was asked to think about the four groups that he or she had named previously and about the membership of each of these groups. Then, for each pairing of the four groups, the respondent was asked to estimate the overlap between the groups as they perceived them. The wording of this question was as follows:

Sometimes members of one group also belong to other groups. I’d like you to rate how much the membership of the different groups overlaps on a scale from 0 to 10. If no members of the first group are also members of the second group, then rate the overlap as 0. If about half of the first group are also members of the second group, then rate the overlap as 5. And if all of the members of the first group are also members of the second group, then rate the overlap as 10. You can use any number from 0 to 10 to rate the amount of overlap between the two groups as you think about them.

This rating was obtained for all pairings of the respondent’s four groups, in both directions, for a total of 12 overlap ratings. An overlap complexity score was computed as the mean of these 12 ratings, with high overlap scores indicating low social identity complexity.

*Tolerance measures.* In a later section of the interview, respondents were asked a series of questions adapted from the General Social Survey (National Opinion Research Center, 1998) to assess their attitudes toward various social issues, including multiculturalism and affirmative action. Two items regarding cultural pluralism (“It is better for the country if racial and ethnic groups adapt and blend into the large society” [reverse-scored] and “It is better for the country if racial and ethnic groups maintain their distinct customs and traditions”) were rated on a scale from 1 (*strongly agree*) to 5 (*strongly disagree*) and these responses were averaged to create a multiculturalism score (where low values indicate greater acceptance of cultural diversity). Similarly, two items related to affirmative action principles (“Increasing the number of racial and ethnic minorities in the workplace benefits our country” and “Hiring and college admissions should not give any preference to racial and ethnic minorities” [reverse-scored]) were averaged to create an affirmative action attitude score (where low values indicate greater acceptance of diversity policies).

Finally, respondents were then given a series of “feeling thermometer” rating questions in which they were asked to indicate how warm or cold they felt toward specific groups on a scale from 0 to 100. To anchor the scale, respondents were first asked to rate their own family on the feeling thermometer and then to rate five other groups (White Americans, African Americans, Mexican immigrants, Muslims, and gays and lesbians) using the same scale.

*Respondent characteristics and intergroup experience.* In addition to these primary measures of complexity and outgroup tolerance, basic demographic information was obtained from each respondent, including gender, age, level of education, and political ideology (1 = *very liberal* to 7 = *very conservative*). Respondents also were asked a set of questions about their contact with members of other racial/ethnic groups in their workplace (for respondents who were employed outside the home) and in their local community. On a scale ranging from 1 (*all or almost all*) to 6 (*none*), respondents indicated approximately how many of the people at their place of work/in their community were of their same race and approximately what proportion of people they know who are of their same race. In addition, respondents were asked about the racial composition of their four ingroups by indicating approximately what proportion of group

**TABLE 1: Means and Standard Deviations for Primary Measures: White Respondents (N = 184)**

	M	SD
Overlap complexity	4.98	1.47
Affirmative action attitude	3.42	1.70
Multiculturalism attitude	3.10	1.89
Distance from outgroups	18.54	21.90

NOTE: Complexity index range = 0-10; affirmative action and multicultural attitudes range = 1 to 7 (where 1 = *high agreement*, 7 = *high disagreement*); distance from outgroups = difference score with possible range of 0 to 99.

members they know are the same race as themselves on the same 6-point scale.

**RESULTS**

*Sample Characteristics*

Of the 222 respondents who had completed the interview, 12 were dropped from analyses because initial inspection of responses to the set of overlap questions indicated that they had provided undifferentiated responses to all 12 overlap pairs (e.g., all 10s or all 5s). All of those included in the final sample showed reasonable differentiation in their estimates of overlap, such that they varied systematically as a function of type of group or level of group inclusiveness. The remaining 210 respondents (118 men, 92 women) ranged in age from 21 to 81, with a median age of 47; 184 of these respondents identified themselves as White/Caucasian Americans and only 26 as various non-White minorities. Because there were too few non-White respondents to make meaningful comparisons, all further analyses were conducted on data from the White respondents only (106 men, 78 women).

As indicated previously, American was included as one of the identity groups for all respondents. The other identity groups were distributed across the different domains as follows: religious affiliation (e.g., Baptists, Catholics, Methodists, Church of Christ), *n* = 145; occupational identity (e.g., accountants, nurses, housewives, retired persons, UAW members), *n* = 126; political or fraternal organizations (e.g., Republicans, Democrats, VFW, ACLU, NRA), *n* = 108; sports or team fanships (e.g., Cleveland Browns fans, football fans, Buckeye fans), *n* = 79; and ethnic/national identity (e.g., Ukranian, Scandinavian), *n* = 7.<sup>2</sup>

Table 1 provides the basic descriptive statistics for the responses from this sample on the measures of interest. (A measure of affective distance from outgroups was computed by subtracting the thermometer rating of each of the four outgroups from the rating of the White Americans ingroup and averaging across these difference scores, as explained below.)

**TABLE 2: Relationship Between Complexity and Tolerance Measures: White Respondents (N = 184)**

	<i>Bivariate Correlation</i>	<i>Standardized Regression Weight<sup>a</sup></i>
Affirmative action attitude	.301***	.193***
Multiculturalism attitude	.155**	.105*
Distance from outgroups	.283***	.149**

a. Controlling for age, education, and ideology. \**p* < .10. \*\**p* < .05. \*\*\**p* < .01.

*Correlates of Overlap Complexity*

Initial correlational analyses were conducted to determine what respondent characteristics were correlated with their overlap complexity index score. There was no significant difference between male and female respondents in mean complexity but overlap complexity was marginally significantly correlated with age of respondent, *r* = .13, *p* < .10, such that older respondents tended to have higher social identity complexity (lower overlap scores). Complexity was significantly negatively related to level of education, *r* = -.36, *p* < .01, with more education associated with higher complexity (lower overlap scores) among group memberships. In addition, complexity scores were significantly correlated with self-reported political ideology, *r* = .22, *p* < .01. More liberal respondents had higher complexity (lower overlap scores) than more conservative respondents.

*Social policy attitudes.* Of primary interest was the relationship between overlap complexity scores and our measures of tolerance and acceptance of outgroups. Table 2 reports the results of correlational and regression analyses for the three tolerance measures in our questionnaire.

As expected, high complexity (low overlap scores) was associated with greater acceptance of multicultural diversity and positive attitudes toward affirmative action principles, even when controlling for effects of age, education, and ideology on these social policy-related attitude issues.

*Thermometer ratings and ingroup-outgroup distance.* On our measure of group affect, we examined first the relationship between overlap complexity scores and the rating of closeness to the White American ingroup. There was no significant correlation between complexity and ingroup affect (*r* = .09). Overlap complexity did, however, correlate with outgroup affect. When we averaged thermometer ratings across the four outgroups, the correlation between complexity and felt closeness to outgroups was -.18 (*p* = .01). To control for individual differences in use of the thermometer scale, therefore,

we used ingroup rating as a baseline and subtracted mean outgroup rating from the ingroup rating to create an index of felt distance from outgroups. This affective distance measure was used as the third measure of tolerance for further analyses, as reported in Tables 1 and 2.

The relationship between complexity and all three tolerance measures remained significant even when controlling for age, education, and ideology. In fact, of the four predictor variables included in the regression analyses, only complexity was consistently correlated with tolerance across all three measures.

#### *Effects of Intergroup Contact*

One factor that might influence our interpretation of the relationship between social identity complexity and outgroup tolerance is the role of intergroup contact or experience. It is possible that people who live in more racially and ethnically diverse environments also have more complex and inclusive social identities and that this level of intergroup contact could account for differences in tolerance in general. To assess the role of intergroup contact in our data, a contact index was constructed from respondents' answers (reverse-scored) to the questions about racial composition of their neighborhood, friends, workplace, and ingroups. On a scale from 1 to 6 (where 6 = *little or no racial diversity or personal contact*), the mean contact for this sample of White respondents was 5.27 ( $SD = .64$ ).

The contact measure proved not to be related to overlap complexity scores,  $r = .03$ , *ns* (perhaps not surprising, given the relatively low mean and small range of contact scores). When the tolerance measures were regressed on contact and complexity, both measures made independent significant contributions to predicting attitudes toward affirmative action (contact beta = .217, complexity beta = .295) and affective distance (contact beta = .140, complexity = .281) but only complexity predicted multiculturalism attitudes.

#### *Effects of Ingroup Type*

To explore further what factors might contribute to social identity complexity, we examined the complexity scores based on different types of ingroups (national, religious, political, etc.). First, because all respondents had Americans as one of the ingroup memberships, we decomposed the overlap complexity index into a score based on mean overlap ratings between each of the ingroups with Americans and a score based on the mean overlap ratings among the other three ingroups, excluding Americans. Because America as a superordinate ingroup is more inclusive than most of the other social categories mentioned by our respondents, it is possible that variations in overall mean overlap scores were driven primarily by whether respondents perceived their

**TABLE 3: Prediction of Tolerance Measures From Components of the Overlap Complexity Scores**

	<i>Standardized Regression Weight: American Overlap</i>	<i>Standardized Regression Weight: Other Ingroups</i>	<i>Multiple Regression Coefficient</i>
Affirmative action	.12	.18	.266***
Multiculturalism	.05	.09	.124**
Distance from outgroups	.10	.19	.260***

\*\* $p < .05$ . \*\*\* $p < .01$ .

own subgroups to be highly representative of Americans in general (i.e., high overlap). If that were the case, then our findings about the relationship between complexity and tolerance could be limited to the effect of perception of the diversity of the superordinate national identity.

Consistent with our assumption that America constituted an inclusive superordinate group identity, the mean overlap score with Americans was higher ( $M = 5.02$ ) than the overlap scores among the other ingroups ( $M = 3.99$ ). However, when each of the tolerance measures was regressed on the two components of overlap complexity considered separately, both contributed approximately equally to the prediction of the tolerance measures (see Table 3). In fact, the non-American ingroups overlap proved to be the stronger predictor in each case. Thus, the extent to which respondents perceived their occupational, religious, political, and recreational subgroup memberships as overlapping or cross-cutting was systematically related to their attitudes about other ethnic groups and related social issues.

For exploratory purposes, we next classified respondents according to whether religious affiliation was one of their ingroup identities and computed mean overlap scores for those with religious identities ( $n = 145$ ) and those without religious identities ( $n = 39$ ). The mean scores of the two groups (4.90 and 5.24, respectively) were not significantly different, indicating that having a religious affiliation or not did not contribute differentially to complexity scores.

We did a similar analysis based on whether respondents included a sports group identification ( $n = 79$ ) or not ( $n = 105$ ) among their ingroups. Although any effects of specific religions on complexity or tolerance might be ideologically based, we speculated that sports fandom might constitute an inclusive identity that cross-cuts differences in cultural background or political or religious ideology. Mean comparisons indicated that those with a sports fan identity had significantly lower complexity (higher overlap scores) ( $M = 5.41$ ) than those who did not include sports among their most im-



portant identities ( $M = 4.65$ ),  $t(182) = 3.61$ ,  $p < .01$ . Looking at just the overlap scores for ingroups other than America, the same result obtained. Sports fans had significantly lower complexity (higher overlap scores) ( $M = 4.34$ ) than those without sports identities ( $M = 3.73$ ),  $t(182) = 2.42$ ,  $p = .01$ . Thus, despite the objective diversity of sports fans in general, those in our respondent sample with high identification with sports or a sports team tended to perceive their ingroups as less inclusive and complex than did respondents with other types of group identification.<sup>3</sup>

## DISCUSSION

The correlations obtained in this study between our measure of social identity overlap and various indicators of tolerance for cultural and ethnic diversity were moderate but highly robust, controlling for related respondent characteristics (including ideology and racial contact) and across different types of ingroups. What is particularly remarkable is the extent to which these relationships extend across domains. Even when national identity was removed from the index, the way that our respondents conceptualize their occupational, political, and religious ingroup memberships proved to be systematically related to attitudes toward ethnic pluralism and toward diverse outgroups, including Muslims and gays. Of importance, higher levels of social identity complexity predicted more favorable attitudes toward affirmative action and multiculturalism, indicating for the first time a relationship between cross-cutting ingroup memberships and endorsement of social policies relevant to outgroups.

In the present study, individual differences in social identity complexity were based entirely on differences in their subjective perceptions of their ingroup memberships. All respondents had at least four different identity groups that were objectively large, diverse, and cross-cutting in membership. Yet, the extent to which individuals conceived of these ingroups as partially overlapping and cross-cutting versus highly overlapping and convergent effectively predicted their attitudes toward outgroups and diversity issues. This supports our contention that it is not simply the number of different group identities that an individual has but how they are subjectively represented and combined that determines the level of inclusiveness of one's subjective ingroup membership.

Furthermore, the particular types of group memberships that respondents included among their most important identities had relatively little effect. Of importance, having a religious identity did not differentially influence complexity scores. Although a majority of our respondents did include a religion among their in-

groups, the mean and variance of complexity scores was the same for those with and without religious identification. This is consistent with findings from research on the relationship between religiosity and prejudice, which suggests that religious affiliation per se does not relate consistently to outgroup attitudes but rather the specific religious orientation of the individual (Batson & Burris, 1994). Of interest, however, identification with sports or sports teams did have an influence on the complexity and inclusiveness of ingroup representations. Compared to those who did not have a sports identification among their most important ingroups, those who did include sports had, on average, a less complex representation of their ingroup memberships, with greater perceived overlap between their sports group and their other group memberships. Despite the objective diversity of sports fans as a whole, individuals apparently think of their fellow fans as a relatively homogeneous group of "people like me."

Finally, respondents' subjective representation of their ingroups proved to be essentially independent of personal experience with diversity at the local level. The majority of our respondents had very little contact with members of minority ethnic groups in their communities or workplace and did not personally know more than a few members of other ethnic groups within their own political, religious, or occupational ingroups. Yet, their abstract representation of the membership of those groups was consistently related to their level of acceptance of ethnic and lifestyle diversity and of outgroups in general.

### *Complexity and Inclusiveness*

One way to think of the difference between complex (inclusive) and simple (exclusive) identity patterns is in terms of the common ingroup identity model (Gaertner & Dovidio, 2000). Complex representations of one's multiple ingroups may be facilitated by the presence of a salient, attractive superordinate category that encompasses all of the ingroup category combinations (Crisp & Hewstone, 2000). Thus, if one's religion and one's occupational identity are cross-cutting subdivisions of the same superordinate group (e.g., nation), identification at the more inclusive level solves the problems of achieving cognitive balance in the face of overlapping ingroups and outgroups. If this is the case, then there will be a reciprocal relationship between superordinate category identification and the presence of multiple cross-cutting subgroups. On one side, a superordinate category identity facilitates acceptance of overlapping ingroup-outgroup memberships; on the other side, multiple cross-cutting social identities contribute to motivation to sustain identification at the superordinate level. Thus, cross-cutting social structures may provide the

context in which relationships between subgroup and superordinate levels of identification can be both positive and stable.

#### *Origins of Social Identity Complexity*

Overall, the findings from the present study provide considerable support for our thesis that a cross-cutting category structure and multiple social identities with awareness of ingroup diversity provide an effective formula for reducing intergroup prejudice. If this is the case, then the next step in a program of prejudice reduction would be to understand the conditions under which membership in multiple social categories will be accompanied by a complex and inclusive cognitive representation of those ingroups.

Generalizing from the literature on cognitive complexity (e.g., Hunsberger, Lea, Pancer, Pratt, & McKenzie, 1992; Tetlock, 1983, 1986), we would expect that exclusive definitions of the ingroup would be promoted when individuals have a high need for certainty or cognitive simplification. If multiple, overlapping ingroup-outgroup distinctions increase uncertainty about whether to classify others as ingroup members, a simplifying strategy that limits ingroup membership to those who clearly meet all criteria for shared identity reduces that uncertainty. This strategy has parallels to the "ingroup overexclusion effect" (Leyens & Yzerbyt, 1992; Yzerbyt, Leyens, & Bellour, 1995) whereby an individual decides by the rule "when in doubt, assume the other is *not* an ingroup member."

Need for certainty has been studied as an individual difference variable, where the focus has been largely on the development of measures to assess individual dispositions to seek certainty or avoid uncertainty (e.g., Huber & Sorrentino, 1996; Neuberg & Newsom, 1993; Webster & Kruglanski, 1994) rather than on the antecedents or causes of these differences in cognitive style. However, high need for certainty also can be situationally induced, particularly by conditions that generate high stress or perceived threat. Thus, we would predict that when individuals, or social systems, are threatened by psychological, economic, or political loss, social identities will be defined more exclusively (less complexly) than under low threat conditions. Exclusiveness also should be associated with high levels of conservatism and resistance to change.

Another factor that may influence the propensity toward exclusive ingroup representations can be derived from the optimal distinctiveness theory of social identification (Brewer, 1991). This theory holds that social identification with groups is motivated by two opposing needs or social drives. On one hand, individuals have a need for inclusion with others in social units

larger than the individual self, and on the other hand, individuals have a need for differentiation from others. These two drives hold each other in check; as individuals begin to feel highly individuated, distinct, and separate from others, the need for inclusion is aroused, but when they feel immersed in very large and highly inclusive groups, the need for differentiation is activated. The motivation to define ingroups exclusively rather than inclusively should be related to the strength of activation of the need for differentiation relative to the need for inclusion. Thus, when individuals feel immersed in a nonoptimally large or amorphous social unit ("just a number") or are experiencing a loss of the sense of boundary for social obligations and relationships, they should seek more exclusive ingroup category memberships and be less willing to tolerate overlapping group memberships.

In addition, general positive affect should be associated with inclusive representations of multiple ingroups. Consistent with this expectation, a review of the research literature on evaluations of stimulus persons who vary in combined category memberships indicates that positive affect predicts more positive attitudes toward others who share ingroup membership on any dimension (Urban & Miller, 1998).

In sum, factors that would be predicted to promote more inclusive multiple identities include high cognitive complexity and tolerance for uncertainty as well as secure social identity or strong activation of the need for inclusion (relative to the need for differentiation) and positive affect. Further consideration of both the origins and consequences of multiple ingroup memberships and social identity complexity should contribute to a comprehensive theory involving the dynamic interactions between individual differences, social structure, and social cognition as the foundation of a social psychologically informed approach to social identity, tolerance, and prejudice reduction.

#### NOTES

1. Only large social groups and organizations were counted in this selection process. Local face-to-face social groups (such as church clubs or volunteer organizations) were not included for purposes of the later survey.

2. It is notable how few of our respondents included ethnic group membership or national origin among their four most important identity groups, even though they had been asked about their ethnic identity specifically within the questionnaire. Only 7 of the 184 respondents who indicated that they were White selected their national origin as one of their important identity groups, and even among the non-White minority respondents, only 8 of 26 included their ethnic identity as among their most important group memberships.

3. For those respondents who did have a sports identity, the mean overlap between their sport ingroup and other ingroups was 5.37, which was relatively high compared to other types of group memberships, and sports fans had the highest mean overlap (lowest complexity) score of any subsample that we examined.

## REFERENCES

- Batson, C. D., & Burris, C. T. (1994). Personal religion: Depressant or stimulant of prejudice and discrimination? In M. Zanna & J. Olson (Eds.), *The psychology of prejudice* (Vol. 7, pp. 149-169). Hillsdale, NJ: Lawrence Erlbaum.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*, 475-482.
- Brewer, M. B. (2000). Reducing prejudice through cross-categorization: Effects of multiple social identities. In S. Oskamp (Ed.), *Claremont symposium on applied social psychology: Reducing prejudice and discrimination* (pp. 165-183). Thousand Oaks, CA: Sage.
- Crisp, R. J., & Hewstone, M. (2000). Multiple categorization and social identity. In D. Capozza & R. Brown (Eds.), *Social identity processes* (pp. 149-166). London: Sage Ltd.
- Deaux, K. (1996). Social identification. In T. E. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 777-798). New York: Guilford.
- Deschamps, J.-C., & Doise, W. (1978). Crossed category membership in intergroup relations. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 141-158). London: Academic Press.
- Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Philadelphia: Psychology Press.
- Gaertner, S. L., Dovidio, J., Anastasio, P., Bachman, B., & Rust, M. (1993). The common ingroup identity model: Recategorization and the reduction of ingroup bias. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 4, pp. 1-26). London: Wiley.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: John Wiley.
- Huber, G. L., & Sorrentino, R. M. (1996). Uncertainty in interpersonal and intergroup relations: An individual-differences perspective. In R. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 3, pp. 591-619). New York: Guilford.
- Hunsberger, B., Lea, J., Pancer, S., Pratt, M., & McKenzie, B. (1992). Making life complicated: Prompting the use of integratively complex thinking. *Journal of Personality*, *60*, 95-114.
- Leyens, J.-P., & Yzerbyt, V. (1992). The ingroup overexclusion effect: Impact of valence and confirmation on stereotypical information search. *European Journal of Social Psychology*, *22*, 549-570.
- Migdal, M. J., Hewstone, M., & Mullen, B. (1998). The effects of crossed categorization on intergroup evaluations: A meta-analysis. *British Journal of Social Psychology*, *37*, 303-324.
- National Opinion Research Center. (1998). *1998 general social survey*. Chicago: University of Chicago Press.
- Neuberg, S. L., & Newsom, J. T. (1993). Personal need for structure: Individual differences in the desire for simple structure. *Journal of Personality and Social Psychology*, *65*, 113-131.
- Newcomb, T. (1963). Stabilities underlying changes in interpersonal attraction. *Journal of Abnormal and Social Psychology*, *66*, 376-386.
- Prentice, D. A., Miller, D. T., & Lighthouse, J. R. (1994). Asymmetries in attachments to groups and to their members: Distinguishing between common-identity and common-bond groups. *Personality and Social Psychology Bulletin*, *20*, 484-493.
- Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review*, *6*, 88-106.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-65). San Diego, CA: Academic Press.
- Smith, E. R. (1998). Mental representation and memory. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 391-445). New York: McGraw-Hill.
- Stryker, S., & Statham, A. (1985). Symbolic interaction and role theory. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (pp. 311-378). New York: Random House.
- Tajfel, H. (1978). Interindividual behavior and intergroup behavior. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 27-60). London: Academic Press.
- Tetlock, P. E. (1983). Accountability and complexity of thought. *Journal of Personality and Social Psychology*, *45*, 74-83.
- Tetlock, P. E. (1986). A value pluralism model of ideological reasoning. *Journal of Personality and Social Psychology*, *50*, 819-827.
- Tetlock, P. E., Skitka, L., & Boettger, R. (1989). Social and cognitive strategies of coping with accountability: Conformity, complexity, and bolstering. *Journal of Personality and Social Psychology*, *57*, 632-641.
- Urban, L. M., & Miller, N. (1998). A theoretical analysis of crossed categorization effects: A meta-analysis. *Journal of Personality and Social Psychology*, *74*, 894-908.
- Vanbeselaere, N. (1991). The different effects of simple and crossed categorizations: A result of the category differentiation process or of differential category salience? In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 2, pp. 247-278). Chichester, UK: Wiley.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in the need for cognitive closure. *Journal of Personality and Social Psychology*, *67*, 1049-1062.
- Woike, B. A., & Aronoff, J. (1992). Antecedents of complex social cognitions. *Journal of Personality and Social Psychology*, *63*, 97-104.
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, *73*, 73-90.
- Yzerbyt, V., Leyens, J.-P., & Bellour, F. (1995). The ingroup overexclusion effect: Identity concerns in decisions about group membership. *European Journal of Social Psychology*, *25*, 1-16.

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