Social identity complexity: Comparing majority and minority ethnic group members in a multicultural society

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Abstract

Social identity complexity (SIC) as defined by Roccas and Brewer is an individual's subjective representation of the combination of his or her multiple ingroup memberships. Almost all prior research on SIC and its relationship to intergroup attitudes has been conducted with members of ethnic majority groups. The present research assesses SIC and its correlates among ethnic majority group members (Anglo-Australian students) and members of a salient ethnic minority group (Asian-Australian students). Study 1 found that Asian-Australians perceived significantly more overlap among their ingroups (lower SIC) than did Anglo-Australians, despite the fact that objective overlap is actually greater for majority than minority ethnic groups. Study 2 replicated this difference and found that perceived overlap was predicted by proportion of ingroup friends. Further, for the majority group, low SIC is associated with less inclusive Australian identity, but for minority group members, SIC and Australian identity inclusiveness are essentially independent. Results are discussed in terms of the social-structural environment in which multiple identities are managed.

In a large and complex modern society, persons are differentiated or subdivided along many meaningful social dimensions, including gender and sexual orientation, life stage (e.g., student, worker, retiree), economic sector (e.g., technology, service, academics, professional), religion, ethnicity, political ideology, and recreational preferences. Each of these divisions provides a basis for shared identity and group membership that may become an important source of social identification. Further, most of these differentiations are cross-cutting in the sense that individuals may share a common ingroup membership on one dimension but belong to

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different categories on another dimension. Hence, having multiple group memberships has the potential to reduce the likelihood that one's social world can be reduced to a single ingroup–outgroup distinction.

Despite this structural complexity affording a multiplicity of social identities, social psychology research on social identity and intergroup relations has tended to focus on *singular* identities, reducing the complexity of individual attachments and affiliations to a single, central us–them distinction. In particular, social categorization based on ethnic identity has received the lion's share of research on social identity in real-world contexts. In studying ethnic identity and interethnic prejudices and discrimination, relatively little attention is given to the implications of participation (by members of different ethnic groups) in other social category distinctions that cross-cut ethnicity as sources of group identification. One exception is research on cross-categorization effects, which focuses on how multiple category membership influences perceptions and attitudes towards *others* as a function of combined ingroup and outgroup categorizations (Crisp & Hewstone, 2007).

One thing that has not always been taken into account in studying how individuals perceive cross-categorized others is the way that the perceiver represents his or her *own* multiple category identities. How a person who is both White and Christian responds to another individual who is Asian and Christian may well depend on how the perceiver defines his or her racial and religious identities as ingroups. Importantly, 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. Conversely, 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.

Roccas and Brewer (2002) introduced the concept of *social identity complexity* to represent the subjective structure of multiple ingroup identities. The idea behind the social identity complexity construct is that it is not only how many social groups an individual identifies with that matters but, more importantly, how those different identities are subjectively combined to determine the overall inclusiveness of the individual's ingroup memberships. In considering how to operationalize the social identity complexity construct, Roccas and Brewer (2002) noted that one way to think about different patterns of ingroup combination is in terms of 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. 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.

Even though individuals from the same society may belong to large groups and social categories that are *objectively* cross-cutting (i.e., containing nonoverlapping memberships), there are a number

of cognitive, motivational, and experiential reasons why individuals may differ in their subjective perceptions of how much their ingroups are differentiated or overlapping (Roccas & Brewer, 2002). To develop a complex social identity, special conditions are necessary—conditions that enhance the simultaneous awareness of more than one ingroup and the awareness that these ingroups overlap only partially.

The most obvious factor that may affect social identity complexity is the actual complexity of the experienced social environment. Most of the time, individuals are surrounded by others who are similar to themselves (Kelley & Evans, 1995). We are first exposed to our family members, who generally belong to the same race, religion, socio-economic status as ourselves. Youngsters go to school with children who live in the same neighborhood, and consequently homogeneity of the immediate social environment is maintained, albeit to a lesser degree. The immediate social environment within which most people are socialized is objectively less complex than the society as a whole. Thus, for many people, the local social structure encourages the perception of relatively high similarity and overlap between ingroups, leading to a relatively simple social identity.

Social environments that are ethnically and religiously diverse, in which different bases for ingroup–outgroup distinctions are cross-cutting rather than convergent, confront the individual with knowledge about the differences in meaning and composition of different social categorizations. Consistent with this, Miller, Brewer, and Arbuckle (2009) found that racial diversity of participants' neighborhoods was a significant predictor of overlap complexity. However, living in a diverse, multicultural society may not always be sufficient to provide the conditions for complex identity formation. The impact of a multicultural environment may be experienced differently for different participants, depending on their actual exposure to diversity, which in turn may depend on the extent to which social life is stratified along ethnic lines and on prevailing norms concerning multiculturalism.

Prior Research on Social Identity Complexity

Most of the research to date on social identity complexity and its effects has been based on Roccas and Brewer's (2002) conceptualization of SIC as perceived overlap among ingroup memberships.[1] To measure individual differences in perceived overlap, information is first elicited from respondents to identify their three or four most important group memberships across different domains (e.g., religion, ethnicity, occupation, political organizations, sports). They are then asked a set of questions regarding their subjective impression of the extent of overlap in membership between all possible pairings of their ingroups, in each direction of comparison (e.g., Of persons who are Catholic, how many are also university students? Of persons who are university students, how many are also Catholic?). An index of *overlap complexity* is created by calculating the mean rating of proportion of overlap between ingroups, where high values indicated greater overlap and *less* complexity in the representation of multiple identities.

Preliminary studies using this method for assessing social identity complexity indicated that the measure has reasonable construct validity (Roccas & Brewer, 2002). Even among individuals with similar ingroup identities (i.e., membership groups that are similar in size and objective orthogonality), respondents differ in their perceptions of the degree to which these ingroups overlap, and these differences are correlated with conceptually related variables such as openness versus conservation values (Roccas & Brewer, 2002) and cognitive style (Miller et al., 2009). Importantly, this overlap measure has been found to be systematically related to intergroup attitudes, including acceptance of ethnic outgroups and support for multiculturalism and related social policies (Brewer & Pierce, 2005; Miller et al., 2009).

Thus far, most of the research on the correlates of individual differences in social identity complexity and its relationship to intergroup attitudes has been limited to studies in which participants were

members of the dominant ethnic group within their societies (e.g., European-Americans, Jewish Israelis). One recent study by Verkuyten and Martinovic (2012) did explicitly examine the interaction between ethnic and religious identity among Turkish-Muslim residents in the Netherlands, but this research focused specifically on the intersection between two distinctive, and overlapping, minority identities. There are remaining questions to be addressed regarding the assessment and meaning of social identity complexity among members of ethnic minority groups when ethnic group membership is combined with membership in other large, cross-cutting social categories such as occupational identity, political organizations, or fanships. Further, there has as yet been no study specifically comparing ethnic majority and minority group members on measures of social identity complexity or its correlates.

A focus on multiple social identities would lead us to argue that ethnicity is only one source, among many, of ingroup identification within a complex, multicultural nation. When members of an ethnic minority group participate in many of the same social, political, occupational, and religious identity groups as members of the dominant ethnic majority their classification as a "minority" is based on only one of their available ingroup memberships. Their other social identities may not be numerical minorities at all. For example, an Australian who is ethnically Chinese, religiously Christian, and occupationally a business executive belongs to three demographic groups that vary considerably in their numeric representation within the country. Nonetheless, ethnic heritage can be a salient and important social identity and members of minority ethnic groups are likely to be aware of their minority status on this particular dimension of social categorization. Thus, ethnic minorities (and members of other salient minority groups) may perceive the associations among their multiple ingroup memberships differently than those whose group memberships do not include any distinctive minority identities. Ethnic salience could influence perceived overlap in either of two opposing directions, as discussed in what follows.

Exploring social identity complexity among members of an ethnic minority group provides an opportunity to clarify the difference between objective overlap among different group memberships (defined in terms of demographic representation within a given country), and subjective perceptions of ingroup convergence. When members of an ethnic minority group belong to the same social, political, occupational, or religious ingroups as members of the ethnic majority, the objective overlap between their ethnic group membership and the membership of these other groups will be relatively smaller than for ethnic majority group members. That is, the proportion of members in, for instance, a professional occupational ingroup who are also members of one's ethnic ingroup will inevitably be smaller for ethnic minorities than for ethnic majorities based on demographic numerical representation. To the extent that ethnic minorities are aware of this differential representation when they are asked to estimate the overlap between different ingroup memberships, their estimates would be systematically lower on average than for ethnic majorities. Thus, if awareness of numerical representation influences subjective estimates on the SIC overlap measure, we would expect ethnic minorities to show lower overlap scores on average. Since lower overlap scores are interpreted as higher social identity complexity, this measure of SIC could be artifactually inflated when employed with ethnic minority group members.

On the other hand, to the extent that respondents base their estimates of overlap on personal experience and subjective representations of their ingroups, overlap scores may not be constrained by objective differences in numerical representation. Members of distinctive minority groups, by virtue of self-categorization or categorization by others, are vulnerable to a single dominant group identity where alternative sources of social identity (religion, politics, occupation) converge with or are subordinated to their ethnic/cultural group membership. According to the Roccas and Brewer (2002) model of SIC, an identity structure with a dominant identity would be less complex than one in

which multiple identity groups were highly differentiated. Further, to the extent that ethnic minorities live and work in ethnic enclaves, their experienced convergence between ethnic identity and other group identities may be greater than that expected based on distribution in the population at large. Based on these influences, the subjective perception of ingroup overlap among ethnic minority respondents may be equal to or even higher than that of ethnic majority respondents, running counter to objective differences in proportional representation.

As an initial investigation of the effects of membership in a salient minority group on our (subjective) measure of social identity complexity, the present research examined differences between Australian university students whose ethnic heritage was that of the dominant majority (Anglo or European Australians) and those whose ethnic heritage was that of a significant minority group (East or Southeast Asian Australians). The first study compared samples of Anglo and Asian participants in terms of their responses to the overlap measure of social identity complexity. A follow-up study further examined ethnic differences in the relationships between social identity complexity and intergroup contact, identification with Australia, and acceptance of other ethnic subgroups.

Study 1

Data for the first study were collected over an 18-month period from first-year psychology students at the University of New South Wales in Sydney and the University of Sydney. Both sites are urban university campuses with a diverse student body including a significant proportion of international students (19–20%) and domestic (Australian citizen) students from different cultural backgrounds. Among domestic students, the majority are from Anglo-Celtic or European ethnic background (approximately 60%) and the largest minority ethnic group representation is East or Southeast Asian (approximately 25%),[2] primarily Chinese. Across three semesters, introductory psychology students who signed up to participate in various experiments on social identity and intergroup perceptions were pretested on social identity complexity using our ingroup elicitation and overlap perception method of assessing SIC.[3] The participants tested over this period of time included 566 students who were Australian citizens from either Anglo or European ethnic background ($N = 338$) or from East or Southeast Asian background ($N = 228$), as determined by responses to a checklist of ethnic heritage.[4] These two groups constituted the samples for our comparative analysis.

Method

Experimental sessions ranged from 1 to 5 participants, with each participant seated in a cubicle separated from other participants. All measures were administered on a computer with instruments developed using MediaLab© software (Empirisoft, 2010).

Participant characteristics. All participants were recruited from first-year psychology classes and participated in the study in exchange for course credit. Of the 338 Anglo-Australian participants, 235 were female and 103 were male; of the 228 Asian-Australians, 160 were female and 68 male. The average age across both samples was 19.75 years (range 18–46) and most had lived in Australia all of their lives (minimum = 6 years).

Overlap complexity measurement. SIC was assessed using a computerized procedure developed by Miller et al. (2009). Participants were first given the group elicitation questionnaire, which is designed to elicit a participant's group memberships in various social categories via a series of multiple-choice questions. The group memberships obtained were racial/ethnic background, religion, sports fandom, socioeconomic status, political party membership, and type of place of upbringing (i.e. city, regional city, or country town). For each category, participants were presented with a list of possible group memberships and asked to select the one that they belonged to (or to check a "none/not applicable" option).[5]

Once the participant's relevant category memberships were elicited, all of the selected group memberships (except for ethnic background) were listed, and participants were instructed to select the two group memberships which they consider most important from this list. A final list of group memberships was compiled from these two selections, along with the ethnic background selection and "university student" (an identity shared by all participants). As a result of this group elicitation procedure, a set of four ingroup memberships (ethnicity, university student, and two self-selected ingroups) was obtained for each participant, representing four cross-cutting social categories.

Following the group elicitation questionnaire, participants were given instructions for completing the overlap measure of social identity complexity as follows:

> Now we are going to ask you some questions about how memberships in different social categories are related. Group memberships can be associated in various ways. For example, "mothers" are all members of the category "women," but only some of the people who are women are mothers. Many people who are engineers are also sports fans, and some people who are sports fans are engineers. We are interested in your estimates of how many people in group X are also members of group Y, rated on a scale from 1 (*none*) to 11 (*all*). In each case, we are asking for your *subjective* estimates based on your own impressions of the social groups. There are no right or wrong answers.

Following these instructions, respondents were given two practice items and then a series of items that assessed perceived overlap between all pairs of the participant's own set of four ingroups. Overlap was measured by asking participants "When you think about people who are < Group A >, how many are < Group B >?" and "When you think about people who are < Group B >, how many are < Group A > ?" for all 12 possible pair combinations. Responses

were given along a scale ranging from 1 to 11 (1: *none are*; 6: *half are*; 11: *all are*). Overlap ratings were averaged to create one aggregate measure of SIC, with a lower score indicating greater social identity complexity.

Cognitive style measures. Prior to the identity complexity measurement procedure, participants completed a brief demographic questionnaire and short versions of three cognitive style measures—need for cognition (Cacioppo, Petty, & Kao, 1984) and the intolerance for ambiguity and closemindedness subscales of the need for closure measure (Webster & Kruglanski, 1994).

Results

Before analyzing overlap scores, we examined the distribution of ingroups selected as most important by the two samples of participants. Respondents from both groups selected ingroups from the full range of religion, political organizations, residence, and sports fanships, in roughly equal proportions. Thus, the four group memberships for which overlap estimates were obtained were comparable for the two samples.[6]

Comparison of mean overlap scores. The mean estimate of overlap among ingroup memberships was significantly greater in the Asian-Australian student group ($M = 6.48$, $SD = 1.01$) than for the Anglo-European group ($M = 5.98$, $SD = 1.04$), $F(1, 562) = 32.34$, $p < .001$. Thus, our Asian sample perceived more convergence and less differentiation among their ingroups on average than did the Anglo sample. There was also a significant gender main effect, with males rating overlap higher ($M = 6.30$, $SD = 1.02$) than females ($M = 6.13$, $SD = 1.06$), $F(1, 562) = 3.93$ ($p < .05$) However, the gender difference was relatively small and there was no significant Gender x Race interaction.

There were no significant differences between the two ethnic subsamples on any measures of cognitive style (need for cognition, tolerance of ambiguity, or need for closure), so the ethnic differences in SIC could not be accounted for by

differences in general cognitive complexity. However, there was some difference between the samples in length of residence in Australia. Although the vast majority of our participants had lived in Australia all of their lives, the proportion who had not was greater for the Asian subsample. To be certain that this difference did not account for the obtained mean difference in overlap scores, length of residence was coded into three categories (6–8 years, 9–15 years, > 15 years) and an Ethnicity x Residence Length ANOVA was conducted on overlap scores. As can be seen in Table 1, the overlap difference was greatest for those students who had lived in Australia all or most of their lives (the majority of both samples), and there was no statistically significant effect of Length of Residence or Ethnicity x Residence interaction.

Breaking SIC down into component elements. To examine the ethnic difference in overlap judgments more closely, and to be sure that the overall mean difference was not driven by just one combination of groups selected for inclusion in the measure, we compared mean overlap estimates for each of the 12 ingroup pairings separately. Overlap scores were significantly higher among Asian respondents for 10 of 12 component ratings. The exceptions were the items rating overlap between ethnic identity and membership in the respondent's two chosen ingroups, for which the Anglo mean scores were marginally significantly higher than the Asian means. That is, Anglo respondents on average thought that a higher proportion of those ingroups' memberships would be ethnically Anglo than Asians thought they would be ethnically Asian, consistent with

Table 1. Overlap scores as a function of ethnicity and length of residence in Australia.

Length of residence in Australia	Anglos		Asians	
	n	Mean (*SD*)	*n*	Mean (*SD*)
6–8 years	14	6.03 (0.93)	14	6.06 (0.68)
9–15 years	24	6.20 (1.02)	45	6.48 (0.97)
> 15 years	251	5.90 (1.05)	123	6.49 (0.99)

objective numerical representation. However, on the obverse of those items (perceived overlap between ethnicity and Ingroups 1 and 2), Asian-Australians' ratings were significantly higher than Anglo-Australians' ratings.

Overall then, despite their ethnic minority status, Asian-Australian students estimated a higher degree of overlap between their ethnic identity group and other ingroup memberships, and also more overlap between their other ingroup identities as well. However, this overestimation was particularly pronounced for the perceived overlap between ethnic identity and university student identity. When asked to estimate the number of Asian-Australians who are also university students, their mean rating was 8.05 (on the 11-point scale), and even the reverse item (estimating how many university students are also Asian-Australians) had a mean value (*M* = 6.77, *SD* = 2.02) significantly higher than the mean estimate of Anglo-Australian students on the comparable item (*M* = 5.69, *SD* = 1.72), $F(1, 565) = 46.72, p < .0001$.

Discussion

In this first-year university student sample, Asian-Australian respondents see their significant ingroup memberships as converging to a greater extent than Anglo-Australian respondents, who perceive greater differentiation across their multiple ingroup memberships. Since the direction of this difference stands in contrast to objective differences in ethnic group representation within Australia, it confirms the subjectivity of the social identity complexity measure. Although Asian-heritage students are no doubt aware that Anglo-Australians are in a majority among Australian university students, the *subjective* overlap between being Asian-Australian and going to university is exceptionally high.[7] But this extends to other group memberships as well. For instance, our Asian subsample also perceived high overlap between being a university student and membership in their selected (nonethnic) ingroups (*M* = 5.99 to 6.84), indicating a high level of convergence between ethnic identity, student identity,

and other ingroup memberships. By comparison, Anglo-Australian students see greater differentiation among their different social identities and perceive less association between their student identity and their ethnic identity despite being in the numerical majority in the university context.

In pluralistic societies where one cultural group is a dominant majority and others are minority and/or newcomers, it is relatively easy for members of the majority group to take on multiple, differentiated group memberships (e.g., occupational identities, political organizations, recreational identity groups) and to move effortlessly across different ingroup identities in different domains of life, with their ethnic identity largely ignored. By virtue of differential salience, they are more likely to be aware of the representation of ethnic *outgroups* in the composition of their various nonethnic group memberships than they are of their own ethnic representation (Mullen, 1991), leading perhaps even to an *underestimatation* of the extent of overlap between ingroup ethnicity and other group memberships. Ethnic minorities, by contrast, are more likely to "carry" their ethnic identity across social contexts, so that their membership in other social groups and categories is subjectively linked or associated with their ethnic identity, independent of their numerical representation in those groups.

This subjective linkage between ethnicity and other group memberships may be reinforced by patterns of social interaction and friendship formation. Even though students of Asian heritage are technically a minority group in Australian universities, they are a substantial minority in that setting. So the university context provides opportunity for social segregation along ethnic lines where the personal, experienced social environment is heavily dominated by fellow students with shared ethnic and other ingroup memberships. Even outside the university, there may be many contexts, such as residential neighborhoods (Ufkes, Otten, van der Zee, Giebels, & Dovidio, 2012), where ethnic enclaving creates an experienced environment in which multiple ingroup memberships are characterized by shared ethnicity.

The difference between Anglo and Asian-Australian students in perceived overlap of multiple group memberships may also reflect cultural influences specific to those ethnic groups. To the extent that our Asian-Australian students have been socialized to relatively more collectivistic cultural values than is typical for our Anglo or European students, they may bring a different frame of reference to defining shared identities or ingroup composition. In general, members of collectivistic societies construe their group memberships in terms of personalized, relational connections so that ingroups are smaller and more homogeneous compared to members of individualistic societies where ingroups (social category memberships) are broader, larger, and more impersonal (Brewer & Yuki, 2007; Triandis, 1989). Thus, in responding to questions that ask "when you think about persons who are < ingroup >…" Asian participants may be more likely than Anglo participants to refer to their personal network of family and friends in deciding how to answer the questions regarding group membership overlap. Anglos, on the other hand, may be more likely to respond by accessing their cognitive representation of social categories and category boundaries.

In sum, the finding that Asian-Australians perceive greater convergence among their multiple ingroup memberships than Anglo-Australians gives rise to a number of speculations about what underlies this difference and what implications it has for how social identities are construed in the two subgroups. No data were available from Study 1 that could address these speculations adequately, but further exploration of the correlates of SIC within the two ethnic groups could shed some light on the nature of the differences and whether perceived overlap has the same implications for ethnic minorities as it does for members of the ethnic majority group. Of particular interest would be the relationship between perceived overlap among ingroups and the ethnic composition of the respondent's friendship network as well as contact with members of other ethnic groups. Of related interest is the association between our overlap measure of SIC and identification with

the superordinate national group identity and degree of acceptance of ethnic outgroups who share that superordinate identity. If ethnic minority and majority group members bring different frames of reference to questions regarding ingroup composition, the pattern of relationships between the overlap measure of social identity complexity and orientation toward ethnic outgroups may be different than has previously been found among members of ethnic majority samples, where perceived ingroup overlap is negatively correlated with outgroup acceptance (Brewer & Pierce, 2005; Miller et al., 2009). Of particular importance is the question of whether the relatively high convergence of ingroup memberships among our Asian-Australian students is associated with greater distancing from Australian identity and the Anglo majority.

Our second study was conducted to pursue these questions regarding the correlates of SIC further.

Study 2

The relationship between identification with one's ethnic subgroup and national identity has been the subject of considerable social science research (e.g., Devos, Gavin, & Quintana, 2010; Sidanius & Petrocik, 2001; Verkuyten & Yildiz, 2007) as well as a source of controversy in the political discourse on multiculturalism. Broadly speaking, results from studies in the USA and Europe tend to support two conclusions. First, there is an implicit association between national identity and cultural identity for members of the dominant ethnic majority group (Barlow, Taylor, & Lambert, 2000; Devos & Banaji, 2005; Swain, 2002) and members of the majority group project their own ingroup prototype onto their representation of the national identity (Waldzus, Mummendey, Wenzel, & Boettcher, 2004). Second (and perhaps as a consequence of the first), there is an asymmetry in the correlation between strength of identification with racial/ethnic heritage and identification with the nation such that this relationship is significantly positive for members of the ethnic majority but either

nonsignificant or even negative for members of ethnic minorities (Sidanius, Feshbach, Levin, & Pratto, 1997; Sidanius & Petrocik, 2001; Sinclair, Sidanius, & Levin, 1998).

The question we pose here is how the aforementioned findings are influenced by differences in social identity complexity among ethnic majority and minority group members. Although there is considerable research on how members of ethnic minority or immigrant groups manage the integration of their cultural identity and identification with the host nation, little if any attention has been given to how ethnic identity is combined with other sources of social identity within the nation, such as religious group membership, political organizations, and occupational identity. It could be expected that high perceived overlap between ethnic identity and other sources of social identity within minority groups would strengthen ethnic ingroup identification and exacerbate the negative relationship between ethnic identification and identification at the national level. The study by Verkuyten and Martinovic (2012) among Turkish-Muslim residents in the Netherlands found that the interaction of high religious and high ethnic identification (and perceived high overlap between the two identities) predicted low identification with the Netherlands, whereas strength of religious identification or ethnic identification alone did not have a negative relationship with national identity. But this study focused specifically on the intersection between two distinctive minority identities and it is not clear whether the same relationship between overlap SIC and national identity would hold for different types of multiple ingroup memberships.

Alternatively, it can be argued that the intersection of ethnic and other ingroup identities provides a type of insulation from feelings of minority status and associated alienation from the superordinate nation so that there could even be positive relationships between overlap SIC, ethnic identification, and identification with the nation.

Another study in the Netherlands by Ufkes et al. (2012) found that when minority ethnic

group members perceived their own ethnic group to be highly prototypical of their city district of residence, district identification was predictive of positive attitudes toward ethnic outgroups. In this case, high perceived overlap between ethnic and neighborhood identities appeared to have a positive effect on integration.

Our present study was designed to test these interrelationships among social identity complexity, national identity, and intergroup acceptance more systematically in the Australian context. For this purpose we utilized a newly developed measure of implicit inclusiveness of national identity. As in Study 1, we compared samples of Anglo- and Asian-Australian students.

Method

Participants. For purposes of this study, first-year psychology students at the University of Sydney were recruited for participation if they identified as Anglo, European, or Chinese in ethnic background or national heritage.[8] Of a total 207 students recruited to participate, all were Australian citizens and 104 had checked their ethnic background as Anglo or European (52 males, 52 females) and 103 as Chinese (50 males, 53 females).

Procedure and measures. Participants were run in sessions of one to four and all measures were administered on computer. Following some basic demographic questions, the first instrument completed by respondents was the group elicitation questionnaire and perceived ingroup overlap rating task used in Study 1 as our measure of social identity complexity.

Participants then completed a novel categorization task that constituted our measure of implicit ingroup inclusiveness. The task was a computerized version of a Triple Crossed-Categorization Task (van Dommelen, Schmid, & Hewstone, 2012) in which participants are shown a series of profiles of fictitious targets, each identified by three group memberships. Profiles varied on three relevant social categories: ethnicity (signified by the name of each target); nationality

(signified by the flag depicted on each profile image); and university membership (signified by the university logo included on each profile image). Gender of the target profiles was held constant, with male participants viewing male targets and female participants viewing female profiles. By varying the three category memberships, the stimulus set contained 24 profiles that shared 3, 2, 1, or 0 of these group memberships with the participant.

The profiles were displayed on the computer screen one by one and in random order, and participants were instructed to categorize the targets as "us" or "not us" as fast as possible, by pressing the corresponding key on the computer keyboard.

For purposes of the present study, we were particularly interested in how respondents classified the profiles that described individuals who shared the participant's national identity (Australia) but differed in ethnic identity. For Anglo participants there were four profiles that had these characteristics—two depicting Australians with Chinese names and two depicting Australians with Pakistani names. For Chinese participants, the four comparable profiles were two with Anglo names and two with Pakistani names. As our measure of implicit national identity inclusiveness we computed an index of the number of these profiles that were classified as "us" by the respondent (between 0 to 4). We also computed two subindices based on the number of Asian/Anglo profiles classified as "us" (0 to 2) and on the number of Pakistani profiles classified as "us" (0 to 2).

Following the classification task, each of these profiles was also rated on a "warmth" thermometer measure that ranged from 0 to 100.

Completion of the profile sorting and thermometer rating tasks was followed by a questionnaire that contained measures of strength of ethnic identification, strength of identification with Australia, and a series of questions regarding intra- and intergroup contact.[9] The identification measure was a 1-item rating of the importance of the group membership (Australian or ethnic identity) on a 7-point scale.[10] Three different items assessed intra- and interethnic contact—"How

many of your friends are Anglo-Australians?" (from 1 = *none* to 6 = *all*), "How many of your friends are Asian-Australians?" (1= *none* to 6 = *all*), and "How much contact do you have with people who are not of the same ethnic background as you" (1 = *never* to 6 = *very often*).

Results

Group difference in overlap scores. The results from the overlap measure in this second study replicated the group difference obtained in Study 1. The mean overlap score for Anglo students (*M* = 5.93, *SD* = 1.02) was significantly lower than that for the Chinese student sample (*M* = 6.29, *SD* = 1.03), t = 2.49, p = .01.

Social identity complexity and social contact. Table 2 displays means and standard deviations for the two subsamples in their responses to the questions regarding proportion of ingroup and outgroup friends and general contact with ethnic outgroups. The difference between groups on the quantity of outgroup contact item was marginally significant, t = 1.84, p < .07, with Anglos reporting more contact with other ethnic groups than Chinese. The direction of the difference is interesting because, again based on demographics, members of minority groups are statistically more likely to come in contact with majority group members than vice versa. The obtained result provides some indirect support for the idea of differential salience of ingroup and outgroup ethnicity for the two populations. However, as is

Table 2. Study 2: Contact measures by ethnicity.

	Anglos Mean (*SD*)	Chinese Mean (*SD*)
Proportion Anglo friends[a]	4.29 (0.91)	2.98 (1.16)
Proportion Asian friends[a]	2.88 (0.99)	4.22 (1.05)
Outgroup contact quantity[b]	4.94 (1.05)	4.53 (1.36)

Note. [a]Scale = 1 (none) to 6 (all); [b]scale = 1 (never) to 6 (very often).

evident in Table 2, the two groups did not differ at all in their reported friendship composition patterns, with both samples indicating a significantly higher proportion of ethnic ingroup friends relative to friends from the other ethnic group.

To test our speculation that subjective perception of ingroup overlap is related to ethnic homogeneity of the respondent's social environment, we examined the correlations between overlap and our measures of outgroup contact, ingroup and outgroup friendships for both Anglo and Asian samples. General contact with ethnic outgroups did not have a significant correlation with overlap in either sample. Given the nature of the measures, the reported proportion of ingroup friends and proportion of outgroup friends were negatively correlated (r = −.35 for Anglos, r = −.78 for Asians), but only *ingroup* friendship significantly predicted overlap (r = .29, p < .05 for Anglos; r = .21, p < .05 for Chinese). The correlation with reported ethnic outgroup friends was nonsignificant for both groups (r = −.07 for both). Combining both friendship measures as predictors of overlap scores confirmed this difference. For Anglos, regressing overlap on both Anglo and Asian friends revealed a significant effect of Anglo friends (β = .30, p = .05) and no significant contribution of number of Asian friends (β = .03, *ns*). Similarly for Asians, the number of Asian friends significantly predicted overlap (β = .41, p = .01), with no additional impact of number of Anglo friends (β = .26, *ns*). Hence, the relative dominance of ethnic ingroup members in the participant's social circle was a significant factor in the subjective overlap estimates in both ethnic groups, and there was no clear indication that this relationship was stronger for the Chinese-Australians than for Anglo-Australians.

Identification and inclusiveness. Table 3 reports the subgroup means (and t tests of group mean differences) for the measures of Australian identification, ethnic identification, the three ethnic outgroup inclusion indices from the sorting task, and the warmth ratings for ethnic outgroup profiles.

Table 3. Study 2: Group differences in identification and inclusion.

Variable	Anglo Mean (*SD*)	Chinese Mean (*SD*)	Mean diff.
Ethnic identification	3.41 (1.75)	5.14 (1.61)	*t* = 6.07 (*p* < .001)
Australia identification	5.09 (1.52)	5.77 (1.42)	*t* = 2.70 (*p* < .01)
Ethnic outgroup inclusion	2.42 (1.50)	2.71 (1.42)	*ns*
Anglo/Chinese outgroup inclusion*	1.13 (0.88)	1.51 (0.76)	*t* = 3.37 (*p* < .001)
Pakistani inclusion	1.29 (0.82)	1.20 (0.88)	*ns*
Ethnic outgroup closeness	61.4 (16.4)	58.1 (15.6)	*ns*
Anglo/Chinese outgroup closeness*	61.1 (17.8)	62.2 (16.6)	*ns*
Pakistani closeness	61.8 (16.8)	54.0 (17.7)	*t* = 3.27 (*p* < .001)

Note. *Ratings of Chinese targets by Anglo participants or Anglo targets by Chinese participants.

Both groups reported relatively high levels of identification with Australia, but the Chinese national identification rating was even higher than that reported by Anglos, *t* = 2.70, *p* = .01. The Chinese were also significantly higher in identification with their ethnic group, *t* = 6.07, *p* < .001. Consistent with past research comparing majority and minority groups, the correlation between ethnic ingroup identification and national identification was strongly positive for Anglo-Australians (*r* = .45, *p* < .001) but weaker (though still positive) for Chinese-Australians (*r* = .22, *p* < .05), with the difference between the size of the two correlations being marginally significant (*z* = 1.82, *p* < .10).

Interestingly, the relationship between strength of identification with Australia and implicit inclusiveness also showed an ethnic difference. For Anglo participants there was a nonsignificant but *negative* correlation between national identification and inclusion of ethnic outgroups as part of "us" (*r* = −.17, *p* > .20. For Chinese-Australians, however, this correlation was significantly *positive* (*r* = .20, *p* = .05), with the difference between the two correlations being statistically significant (*z* = 2.61, *p* < .01). This difference, however, depended on which ethnic outgroup was being evaluated. As can be seen in Table 2, Anglo and Chinese did not differ significantly in their probability of including Pakistani-Australians as "us," but Anglo participants were significantly less likely to include Chinese-Australians than were Chinese participants to include Anglos (a 2 x 2 repeated measures ANOVA revealed a significant Ethnicity x Target interaction effect, *F*(1, 202) = 5.92, *p* < 001). For Anglos, acceptance/rejection of Chinese-Australians and Pakistani-Australians was essentially the same, but Chinese were significantly more accepting of Anglo-Australians as fellow ingroup members than of Pakistani-Australians.[11] Further, for Chinese, the positive correlation between identification with Australia and inclusion of the ethnic outgroup was stronger for the Anglo-Australian target profiles (*r* = .25, *p* = .01), and nonsignificant for Pakistani targets (*r* = .10, *p* > .10). For Anglos, the correlation was nonsignificantly negative for both Asian profiles (*r* = −.20, *p* < .10) and for Pakistani profiles (*r* = −.09, *p* > .10).

Finally, across the two subsamples, there was a significant negative relationship between overlap scores and inclusion of ethnic outgroups (four-card measure), *r* = −.17 (*p* = .01). However, this was qualified by a significant Ethnicity x Overlap interaction effect (β = −.81, *t* = −1.93, *p* = .05). For Anglo-Australian participants, the negative correlation between overlap and inclusion was significant (*r* = −.33, *p* < .001), consistent with findings from previous research on the relationship between social identity complexity and acceptance of ethnic outgroups and multiculturalism. However, for Chinese-Australian respondents this relationship between social identity

complexity and inclusiveness was nonsignificant ($r = -.07$, $p > .20$). The pattern was the same when we looked at inclusion of different ethnic outgroups separately. Among the Anglo participants, SIC overlap was significantly negatively correlated with inclusion of Asians ($r = -.34$, $p < .01$) and with inclusion of Pakistanis ($r = -.25$, $p < .01$). Among the Chinese participants, the correlation was nonsignificant in both cases ($r = -.07$ and $-.06$, respectively).

Discussion

Although the results of Study 2 replicated the ethnic difference in subjective ingroup overlap that had been found in Study 1, the additional measures taken in this second study provide a more complete picture of social identity patterns in the two groups. Our data on ethnic composition of close friendships confirmed that the relative homogeneity of one's social circle predicted perceived overlap among ingroup memberships, but this was equally true for both Anglo and Chinese subsamples. There was no evidence that differences in friendship composition, or differences in the influence of immediate social environment, could account for the obtained mean difference *between* groups in social identity complexity. There remains the possibility that differential *salience* of ingroup versus outgroup ethnicity among the members of an individual's various social groups plays a role in accounting for difference in perceived overlap, but we have no direct evidence for this explanation.

There was evidence, however, for differences between groups in the implications of social identity overlap for identification with Australia and acceptance of ethnic outgroups. Importantly, the high degree of convergence between ethnic and other ingroup identities among the Chinese-Australian student sample was *not* associated with a lower level of identification with the superordinate national identity group. In fact, the Chinese sample rated their Australian identity as even more important than did the Anglo sample. The Chinese students also rated their ethnic identity as high in importance, and this ethnic identification had a low but positive correlation with their level of identification with the nation.

For Anglo students the positive correlation between strength of ethnic identification and identification with Australia was stronger than obtained for the Chinese sample. This asymmetry in the pattern of subgroup–superordinate group identity correlations is consistent with predictions from social dominance theory (Sidanius & Petrocik, 2001) and with previous research on ethnocentric projection by dominant ethnic groups (Devos et al., 2010). Interestingly, a related asymmetry was manifest in the results from our measure of national inclusiveness. For Anglo students, strength of national identification did not predict acceptance of Chinese-Australians as "one of us," consistent with the idea that "Australia" is implicitly defined as "Anglo-Australian" for many members of the majority group. By contrast, for Chinese-Australians, national identification *did* correlate positively with inclusion of Anglo-Australians as part of the ingroup, again consistent with a shared perception of Australian as dominantly Anglo so that identification with the nation implies inclusion of Anglos as part of that superordinate identity.

The asymmetry between majority and minority ethnic groups in patterns of intercorrelations was also evident in the relationship between social identity complexity and inclusiveness. For Anglo participants, high perceived overlap among their ethnic, university, and other group identities was associated with less acceptance of ethnic outgroup members as "one of us," consistent with past research on social identity complexity (Brewer & Pierce, 2005). For Chinese-Australians, however, high perceived overlap did not predict exclusion of the Anglo outgroup as part of the shared national identity. As with ethnic and national identification, identity complexity and inclusion appear to be independent among the ethnic minority group members.

Overall, then, the results of this comparative study support the idea that for majority group members, ethnocentrism and intersection of ingroup identities are predictive of exclusive definitions of the national superordinate identity and

low acceptance of ethnic outgroupers. For ethnic minority group members, however, the maintenance of strong ethnic identification and ethnic ties is not incompatible with the development of a strong and more inclusive national identity as coexisting sources of identification.

General Discussion

The overlap measure of social identity complexity is an indirect indicator of how individuals manage their multiple social identities. The relatively high degree of subjective overlap that we have found in these studies for members of a salient ethnic minority group may reflect the ethnic composition of their experienced social environment, as the correlation with proportion of ethnic ingroup friends suggests. But it may also represent an identity management strategy that reduces the impact of minority status and supports identification with the superordinate national group and with members of the dominant majority.

For members of the dominant majority, high overlap (convergence between ethnic and other ingroup identities) is associated with ethnocentric projection, a narrow definition of superordinate national identity that implicitly excludes ethnic outgroups from the subjective ingroup. For ethnic minority group members, however, ingroup "ownership" of the national identity is precluded by reality constraints (Waldzus et al., 2004). Instead, cultural and national identities are relatively independent and acceptance of Anglos as part of the shared Australian ingroup (as well as relative rejection of non-Anglo outgroups) is independent of the subjective integration of ethnic and other social identities. Either pattern (cross-cutting or converging identities) may support overall Australian identification and acceptance of shared identity with Anglos.

Results from the current exploration of social identity complexity in majority and minority ethnic groups call attention to the fact that identity management is shaped by the larger societal context in which multiple social identities are situated. Although East Asians are definitely a numerical minority in Australia, they represent a well-established minority group (both historically and numerically) that is proportionally overrepresented in some regions and in institutions of higher education. Under such circumstances, ethnic enclaving (which promotes convergence between ethnic/cultural identity and other group memberships) may be compatible with perceived integration and inclusion in the nation as a whole. But this may not be true for all cultural minorities, particularly more recent or highly distinctive immigrant groups. For some ethnic minorities, concentration in ethnic enclaves and high convergence of ethnic and other social identities may be associated with alienation from the national identity (Verkuyten & Martinovic, 2012; Verkuyten & Yildiz, 2007). The nature of this relationship may vary as a function of time and the degree of mutual accommodation between cultural minorities and the dominant ethnic majority.

The results of the present studies may also be specific to the university context in which the data were collected. In Australia (and in Sydney particularly), East Asian university students may experience a more ethnically homogeneous social environment than would be the case in other social contexts. It would be interesting to learn in future research whether the social identity complexity of our Asian-Australian students will change as they enter the workplace and take on new occupational and other social identities. In more heterogeneous social environments, where their ethnic identity is more distinctive, the integration and management of new social identities may entail greater differentiation between ethnic ingroup membership and other identity group memberships and encourage the development of a more complex social identity (see Amiot, de la Sablonniere, Terry, & Smith, 2007). Thus, the complexity of identity integration and its implications for social inclusiveness may vary as a function of individual development as well as the social-structural environment of the society at large.

Acknowledgements

Notes

1. Roccas and Brewer suggested that perceived similarity versus difference of group prototypes could also be used to assess social identity complexity, but only perceived overlap of membership (composition) is directly related to ingroup inclusiveness.
2. No official statistics on domestic student ethnic background are available from Sydney universities; estimates are based on a survey of students enrolled in first-year psychology classes, which is the population from which our participants are drawn. The proportion of Australians with East/Southeast Asian background in the population at large is 7%, but the proportion among Sydney university students is much greater, though still a clear numerical minority compared to Caucasian (Anglo/European) Australians.
3. The SIC measure was administered at the first phase of the experimental session, uninfluenced by any subsequent experimental treatments and response measures.
4. Hereafter referred to as Anglo-Australians and Asian-Australians respectively.
5. Note that this methodology is designed to constrain the type of group membership that respondents can identify, limiting them to demographically broad, objectively cross-cutting social categories. Thus, a respondent could not select a small idiosyncratic ingroup identity (such as, a local Chinese-Baptist church membership) and instead, the types of groups selected were comparable across respondents.
6. The only noticeable difference in ingroup selections was that Asian students named "Buddhist" as their religious identification more often than Anglo students, but overlap scores for the relatively small proportion of respondents who included Buddhist as one of their groups did not differ significantly from that of the other respondents in the Asian-Australian sample.
7. Since Asians are disproportionately represented in the university student population, the relatively high perceived overlap between Asian and student (i.e., how many Asian-Australians are university students) is realistic, but the obverse (i.e., how many university students are Asian-Australians) is not.
8. We limited participation of Asian-Australian students to those with Chinese heritage because this is the largest Asian population in Australia and because the target profiles in the sorting task used in the experiment were designed with Chinese names as signifiers of ingroup ethnic identity for Asian respondents
9. These contact measures were obtained from only 145 of the 207 participants.
10. There was also a longer 5-item scale of ethnic identification but this correlated .88 with the single-item measure so only the latter was used for comparability with the national identification measure.
11. A similar pattern was obtained for the thermometer ratings of closeness to the profile targets, with Anglos showing no differentiation between Asian and Pakistani targets but Chinese reporting significantly less warmth toward Pakistani targets than toward Anglo target profiles.

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