Daily Intragroup Contact in Diverse Settings: Implications for Asian Adolescents' Ethnic Identity

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Abstract

This study examined the daily-level association between contact with same-ethnic others and ethnic private regard among 132 Asian adolescents (mean age 14) attending 4 high schools ranging in ethnic composition diversity. The data suggest a positive daily-level association between contact with same-ethnic others and ethnic private regard for adolescents who were highly identified with their ethnic group and who attended predominantly White or ethnically heterogeneous schools. In addition, using time lag analyses, contact with same-ethnic others yesterday was positively related to ethnic private regard today, but ethnic private regard yesterday was unrelated to contact with same-ethnic others today, suggesting that adolescents' identity is responsive to their environments. The implications of these findings for the development of ethnic identity are discussed.

Keywords

Intragroup contact; ethnic identity; diversity

Adolescents encounter a variety of people on a daily basis; some of these people are members of the adolescent's ethnic group. These daily encounters are likely to have implications for the development of adolescents' identity in general, and for ethnic minority adolescents, these daily encounters are likely to shape their ethnic identity more specifically. Indeed, research shows that same-ethnic peers serve as important socializing agents by providing information about what it means to be a member of one's ethnic group (Hamm, 2000; Lee, Noh, Yoo, & Doh, 2007; Tatum, 2004; Umana-Taylor, 2004; Yip, Seaton, & Sellers, 2010). However, little research has been conducted on how the interaction between personal and structural characteristics shapes the relationship between contact with same-ethnic others and ethnic identity in adolescents' daily lives.

The current study examines the daily-level relationship between intragroup contact and Asian adolescents' ethnic private regard - the feelings associated with being a member of one's ethnic group (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). In service of this goal, we acknowledge three distinct components of this daily-level relationship. First, we pay particular attention to the directionality of the daily-level association between intragroup contact and ethnic private regard. Namely, does the amount of intragroup contact yesterday predict ethnic private regard today, suggesting that intragroup contact shapes subsequent identity development? Or, does ethnic private regard yesterday predict the amount of intragroup contact today, suggesting that adolescents have agency (i.e., an adolescent's sense

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of competence, instrumentality and autonomy to make decisions that influence his/her own development (Bandura, 2006)) in shaping their social contexts by seeking contact with similar others when they are feeling positive about their ethnic identity? Second, we examine the extent to which Asian adolescents' ethnic identity centrality – the level of importance of one's ethnic group membership - influences the daily-level association between intragroup contact and ethnic private regard. Third, we examine the extent to which structural factors – in this case, the ethnic composition of adolescents' high school – moderate these relationships. Consistent with scholarship on Asians experience in the United States, we use the label "ethnic identity" (as opposed to "racial identity") in our work because ethnicity has been observed to be more salient to Asians in the United States (Espiritu, 1992; Uba, 1994). However, we use the terms "ethnic" and "racial identity" interchangeably or in combination ("ethnic/racial") when referring to previous research in order to be consistent with the way previous researchers have used the terms in their work.

We focus on the identity experiences of Asian adolescents for several reasons. First, although Asians represent one of the smaller minority groups in the United States (5% compared to 16% Latino and 12% Black), they are also one of the fastest growing groups (Census Bureau, 2010). Second, while Asians are a unique group with cultural values and stereotypes that set them apart from other ethnic groups, there is also a great deal of diversity within the broader group (Espiritu, 1992). As such, the importance of examining the effect of intragroup contact on ethnic identity is particularly relevant because contact with other Asians can either emphasize commonality ("We are all Asian.") or difference ("You are Korean and I am Indonesian."). Finally, research on discrimination among Asian American adolescents finds that negative intragroup exchanges are more common compared to other ethnic groups (Fisher, Wallace, & Fenton, 2000; Rivas-Drake, Hughes, & Way, 2008), underscoring the importance of examining how intragroup contact influences Asian adolescents' identity development.

We draw upon ecological theory as a developmental framework for understanding how personal and structural characteristics interact to influence daily processes associated with ethnic identity (Bronfenbrenner, 1999). This framework allows for the developing person to affect the context as well as a reciprocal relationship in which the context influences the person. We adopt this framework to address the daily association between intragroup contact and adolescents' feelings about their ethnic group, taking into account both personal and structural characteristics.

In focusing on social identity processes, we also draw upon Self Categorization Theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), which states that all individuals belong to multiple social categories (e.g., female, Asian, etc.) and that the interplay between personal characteristics and one's immediate structural context determines which of those categories is salient at a specific point in time. "Categorization-in-context" (Turner et al., 1987), considers social identities to be fluid, dynamic and dependent upon one's immediate context. The composition of identities in a context and the social interactions that occur within that context create a *comparative context* which determines the salience of one's social identities. In the current study, we explore how racial composition of adolescents' daily context and the contact they have with ethnic in-group members shape their ethnic private regard.

Private regard: Feelings about one's ethnic group

Building off of Self Categorization Theory (Turner et al., 1987), research on ethnic identity finds that the importance of ethnicity and how individuals feel about being a member of their ethnic group are stable and dynamic (Sanchez & Garcia, 2009; Sanchez, Shih, &

Garcia, 2009; Sellers, Smith, Shelton, Rowley, & Chavous, 1998; Yip, 2005). Until recently, there has been little research on how one's ethnic identity varies across contexts (Forehand, Deshpande, & Reed II, 2002; Hutnik & Sapru, 1996; Shih, Pittinsky, & Ambady, 1999; Yip, 2005). Moreover, the existing work includes adult and young adult samples, not adolescents, despite adolescence being a primary period of identity construction (Erikson, 1968; Phinney, 1993).

People generally evaluate in-group members more positively than out-group members (see Brewer, 2007 for a review). They are more likely to feel that they experience shared fate with (Gurin & Townsend, 1986) and are understood (Seder & Oishi, 2009) by in-group members. Given this attachment to and interdependence with in-group members, encounters with similar others may make people's positive regard for the in-group salient because they know that they are being evaluated positively and are understood. However, encounters with similar others are also likely to highlight the diversity within one's ethnic group, causing people to wrestle with how they are being perceived by other in-group members (Branscombe, Spears, Ellemers, & Doosje, 2002). For example, African Americans and Asian Americans who are perceived as "acting White" and do not conform to their group norms, are marginalized by in-group peers (Neal-Barnett, Stadulis, Singer, Murray, & Demmings, 2010). The extent to which people feel they are accepted or rejected by in-group members may influence their feelings of private regard. For example, foreign exchange students who feel rejected by their host country, compared to those who feel accepted by the country, are more likely to disidentify with the country (i.e., want to leave; Matschke & Sassenberg, 2010). Below we discuss how the variation in the type of intragroup contact - active vs. passive - might influence ethnic private regard.

Intragroup Contact and Self-Perceptions

People prefer to be surrounded by and interact with similar others, perhaps because they feel more comfortable and less distress when in contact with people like themselves (McPherson, Smith-Lovin, & Cook, 2001). As suggested by Self Categorization Theory (Turner et al., 1987), this may be especially true for people who are in settings where similar others are not readily available. For individuals who find themselves in the numerical minority in a setting (e.g. ethnic minority in a predominantly White school), the presence of out-group members may increase in-group affiliation and well-being. Indeed, for stigmatized and ethnic minorities who often find themselves in the numerical minority in situations, being in the presence of similar others is associated with positive psychological well-being and self-perceptions (Frable, Platt, & Hoey, 1998; Sanchez & Garcia, 2009). For example, in an experience sampling study of college students, participants who were members of concealable socially stigmatized groups (e.g., gay/lesbian) reported feeling better about themselves, less anxious, and less depressed when they were with similar others (Frable et al., 1998). Likewise, an experience sampling study including multi-ethnic adults found that individuals reported feeling more valued when other minorities were present (Sanchez & Garcia, 2009). The relationships found in both studies may occur because similar others typically have more positive perceptions of one's group and are able to provide support to help negotiate the challenges of one's group membership (Frable et al., 1998).

Although the aforementioned studies are informative, they do not offer insight into how encounters with similar others shape adolescents' own evaluation about being a member of their stigmatized group. In addition, across these studies, intragroup contact has been conceptualized in multiple ways that vary in degree of direct contact, leaving unanswered the question of which type of contact has a stronger impact on ethnic minorities' self-perceptions. In the present research, we examine how passive (being surrounded by) and active (interacting with) intragroup contact are related to adolescents' evaluations about

being a member of their ethnic group on a daily basis, including examining the directionality of the relationships.

Interacting with vs. being surrounded by same-ethnic others—Contact with same-ethnic others can take many forms; and the operationalization of intragroup contact has varied across previous studies. Some researchers construe intragroup contact as social interactions that suggest people are engaged in an activity together (e.g., socializing). This type of contact is usually measured with items such as, "Who are you with right now?" (Frable, et al., 1998). Other researchers construe intragroup contact by including anyone in a target's general surrounding, regardless of whether the people are engaged in an activity with one another. This type of contact is usually measured with items such as, "How many people of Asian descent are around you?" (Sanchez & Garcia, 2009). Although each type of intragroup contact is related to psychological well-being, it is unclear if one has a stronger effect than the other because both have not been included in the same study as independent constructs. Simply being surrounded by similar others (e.g., having Asian students in class) does not imply the same level of involvement as interacting with similar others (e.g., talking with Asian students in class). On one hand, intragroup contact may require a certain level of involvement with same-ethnic others in order to influence ethnic identity. On the other hand, simply being surrounded by same-ethnic others may be comforting for individuals who generally find themselves in contexts where they are in the numerical minority, and thus, active contact may not be necessary to influence ethnic identity. In the present research we include two conceptually distinct, yet likely related, measures of intragroup contact: 1) active contact – engaging in an activity during an interaction with other individuals (e.g., talking to someone on the subway); 2) passive contact – merely being surrounded by other individuals but not engaging in an activity together (e.g., riding the subway with a group of people). By including both forms of intragroup contact, we approach a more nuanced understanding of how contextual factors shape adolescents' ethnic identity.

Directionality: Does Intragroup Contact Yesterday Predict Private Regard Today or Does Private Regard Yesterday Predict Intragroup Contact Today?

The psychological literature has conceptualized intragroup contact as predicting self-appraisals; contact with other in-group members predicts subsequent feelings about oneself (Tatum, 1997), and existing research supports this notion (Phinney, Romero, Nava, & Huang, 2001; Tatum, 1997). However, in the absence of within-person repeated measures, it is not clear if the relationship is reciprocal. If adolescents have agency over their identity development, those who felt especially positive about their ethnic identity yesterday might seek to affiliate with more in-group individuals today. Moreover, there may be a bi-directional relationship where contact with Asians yesterday predicts higher private regard today *and* higher private regard yesterday predicts contact with Asians today. We address directionality in the current study.

Moderators of the Relationship between Intragroup Contact and Ethnic Private Regard

Both ecological and Self Categorization theories (Turner et al., 1987), suggest that the relationship between daily intragroup contact and ethnic private regard is likely to be moderated by personal and contextual factors. We examine ethnic identity centrality as a possible individual-difference moderator, and ethnic composition of the context as a

possible contextual moderator, of the relationship between intragroup contact and ethnic private regard.

Personal factors: Ethnic identity centrality

People are more aware of environmental cues that are relevant (vs. irrelevant) to important social identities (Turner, et al., 1987). Consistent with this notion, ethnic identity centrality serves as a lens through which people experience the world (Sellers, Shelton, et al., 1998; Shelton & Sellers, 2000). Indeed, people who are highly identified with their ethnic group interpret ethnically ambiguous situations as ethnically motivated (Shelton & Sellers, 2000). Using experience sampling methods, Yip (2005) found that ethnic identity centrality determined how Asian American college students experienced their proximal environments, such that those who were higher on centrality reported higher ethnic identity salience on days in which they were surrounded by more Asian individuals. Building upon this work, we predict that the relationship between intragroup contact and ethnic private regard may differ depending on how important being Asian is to an adolescents' identity. We contend that for Asian adolescents who report that being Asian is central to their identity, having contact with other Asians will be associated with more positive feelings about being Asian. However, for Asian adolescents who report that being Asian is not central to their identity, contact with other Asians will be irrelevant for one's feelings about being Asian. If ethnic identity centrality is a lens through which the world is viewed, then adolescents who choose not to make race important to their identity should report that contact with other in-group members has no bearing on how they feel about being a group member. The effect of ethnic centrality on the daily associations between intragroup contact and ethnic private regard is likely to be further influenced by characteristics of the larger context.

Structural factors: Ethnic composition of context

Researchers interested in examining adolescent development in natural settings have gravitated towards perspectives that provide contextualized approaches to studying development (Barker, 1968; Gallimore & Goldenberg, 1993; O'Donnell, Tharp, & Wilson, 1993; Super & Harkness, 1986; Whiting & Whiting, 1975). The importance of context has been especially highlighted in the area of social identity research (e.g., Ashmore, Deaux, & McLaughlin-Volpe, 2004; Branscombe, Deaux, & Lerner, 1985; Byrd & Chavous, 2009; Chavous, Harris, Rivas, Helaire, & Green, 2004; Ethier & Deaux, 1994, 2001). Unfortunately, although Self Categorization Theory (Turner et al., 1987) underscores the importance of the immediate context, previous research on intragroup contact and self-perceptions has not taken into consideration the different contexts in which contact occurs. Instead, the focus has been on people who are in contexts in which their group is normally in the numerical minority (e.g., bi-racial student at predominantly White college). Sometimes ethnic minorities are not in the numerical minority, but rather are in the numerical majority, on a normal basis. For example, a Chinese adolescent who lives in a predominantly Asian neighborhood, attends a predominantly Asian high school, and participates in activities with predominantly Asian peers, may find herself constantly surrounded by other Asians. Does being surrounded by Asians relate to self-perceptions for this young girl? To our knowledge, research is lacking on how intragroup contact influences ethnic self-perceptions when ethnic minorities are in the numerical majority or in ethnically heterogeneous environments.

We are interested in the ethnic composition of adolescents' schools. Adolescents attend schools where their ethnic group may be in the numerical minority or the numerical majority. The ethnic composition of schools plays a role in the relationship between contact with same-ethnic peers and ethnic identity. For example, African American college students who attended predominantly White high schools reported feeling isolated from their White peers in high school, and searched for contact with African Americans outside of school to

develop a racial identity (Tatum, 2004). Examining annual changes in racial identity, Yip, Seaton, and Sellers (2010) found that contact with same-race peers and racial identity stability varied as a function of the students' school racial composition. For African American adolescents attending racially diverse schools (i.e., relatively equal numbers of minority groups and Whites), less contact with African American peers was related to racial identity instability over a 3-year period. For African Americans attending predominantly White schools, however, more contact with same-race peers was related to identity stability over time. Thus, being in the racial/ethnic minority or majority in school has implications for ethnic identity.

Since Asians comprise under 5% of the United States population (Census Bureau, 2010), many Asian adolescents attend schools where their ethnic group is in the numerical minority. In these contexts people are apt to experience negative psychological outcomes (Niemann & Dovidio, 1998; Pollak & Niemann, 1998; Saenz, 1994) because being in the numerical minority is associated with feelings of social isolation (Martin & Hetrick, 1988), which in turn are related to feelings about one's group membership (Frable et al., 1998). When in minority contexts, interacting with or merely being surrounded by other Asians may reduce the negative affect associated with having one's group be in the numerical minority because adolescents will be reminded that others (in-group members) have positive views of their group and feel like they are understood. Some, although fewer, Asian adolescents attend schools in which their ethnic group is in the numerical majority. In these contexts, intragroup contact and ethnic private regard may be unrelated for adolescents because their group is generally perceived in a positive manner by the majority group (i.e., in-group members). Thus, daily intragroup contact is unnecessary as a buffer from the negative psychological outcomes associated with being in the numerical minority. Alternatively, attending a school in which Asians are in the majority may be negatively associated with ethnic private regard because Asian students may make distinctions amongst themselves (e.g., generational status) that could create divisiveness and problems (Lee, 1996). Social Comparison Theory (Festinger, 1954) suggests that individuals compare themselves to similar others in order to evaluate themselves. In majority schools, "similarity" is likely defined by more nuanced characteristics (e.g., native language) that ironically lead people to create in-group distinctions, resulting in lower private regard among some individuals. Indeed, Turner (1985, p. 257) proposed that "personal self becomes salient where comparisons are restricted to in-group members". In ethnographic work in a predominantly Asian high school, Lee (1996) found that Asian students derogatorily referred to recent immigrants as "fresh of the boat" in order to create a distinction from peers who were more "American".

Present Study—Using ecological theory as a developmental framework and Self Categorization Theory (Turner et al., 1987) to focus on identity processes, we examine how personal and structural factors interact to influence the daily-level relationship between intragroup contact and ethnic private regard for Asian adolescents. We focus on how the type of intragroup contact – being surrounded by versus interacting with same-ethnic others - may influence these relationships, and explore the directionality of the relationship. We predict that for Asian adolescents who report that their ethnicity is important to their overall identity, the more intragroup contact they experience the more positive their ethnic private regard. Moreover, we predict that in schools where Asian adolescents are in the numerical minority, being surrounded by and interacting with same-ethnic peers will be related to more positive ethnic private regard because of the sense of comfort and belonging that similar others can provide. Further, we expect these associations to be especially strong for adolescents who report high levels of ethnic identity centrality. We predict a weaker association in schools where Asians are in the numerical majority. Finally, consistent with research (Hartup, 2005; Levin, van Laar, & Sidanius, 2003), we predict that intragroup

contact will influence subsequent ethnic private regard. However, since this is a new area of inquiry, we do not have hypotheses about the bi-directionality of this relationship.

Method

Participants

Asian adolescents participated in a study on identity development ($N = 132$; mean age = 14.12, $SD = .72$; 92 females). In an open-ended question about ethnicity, 59 participants reported they were Chinese (e.g., Cantonese, Chinese), 45 participants reported they were Asian (e.g., Asian, Asian American) and the remaining participants ($n = 28$) reported other Asian ethnicities (e.g., Bengali, Filipino). Approximately three-quarters of the sample reported being born in the United States ($n = 97$); with most adolescents ($n = 94$) reporting at least one foreign-born parent and the remaining 3 adolescents reporting having US-born grandparents. Of participants who reported being born in other countries ($n = 35$), the majority reported being born in China ($n = 22$), Bangladesh ($n = 3$) and the Philippines ($n = 2$), and age of immigration ranged from 6 months to 14 years old ($M = 6.36$, $SD = 4.54$). A majority of participants reported not knowing the highest level of education completed by their parents ($n = 70$), but the most common response of those who knew was that their parents completed high school ($n = 20$).

Procedure

We obtained data on the ethnic composition of the public high schools from the New York Department of Education. Based on these data, we selected 4 similar-sized and academically-comparable schools to represent a predominantly Asian school ($n = 1$), a predominantly White school ($n = 1$) and ethnically heterogeneous schools ($n = 2$; Table 1). "Predominantly" is defined by a single group representing at least 40% of the school's student population. In the ethnically heterogeneous school, no ethnic group represented more than 40% of the school's population. Once the school administrators agreed to participate in the study, we sent parental consent and youth assent letters home to all 9th graders. We included only students with completed consent and assent forms. In the current study, we focus solely on Asian adolescents because we are interested in examining ethnic minorities when they are in context in which they are in the numerical majority compared to the numerical minority. We are unable to do that with the other ethnic minority students in our study.

At each school, we administered surveys to participants during an orientation session in groups ranging from 10–30 students. These surveys included demographic questions along with measures of ethnic identity. After participants completed the surveys, we gave them a cellular phone to access a web-based survey every night for 7 days before going to bed. All functions on the cellular phone were blocked with the exception of accessing the study's web survey. We provided participants with detailed instructions on how to use the phones and complete the surveys. We tracked compliance online each night. At the end of the week, participants were required to return the cellular phone in order to receive $50 for their participation. On average, participants completed 6.90 (range from 5 to 7) surveys over the course of the week.

Measures

Stable ethnic identity—We adapted the private regard and centrality subscales of the Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1997) for use with a multi-ethnic sample. The private regard subscale has 7 items that measure one's feelings about being a member of his/her racial/ethnic group (e.g., I feel good about people from my racial/ethnic group; $M = 5.36$, $SD = 0.90$, $\alpha = .79$). The centrality subscales has 8 items that

measure the importance of race/ethnicity to one's overall self-concept (e.g., In general, my race/ethnicity is an important part of my self-image; $M = 4.53$, $SD = .87$, $\alpha = .69$). Participants completed the subscales using response scales ranging from 1 `strongly disagree' to 7 `strongly agree'. Since stable ethnic identity influences daily-level ethnic identity (i.e., how individuals feel about their ethnic group in general affects how they feel about their ethnic group on a specific day; Yip & Fuligni, 2002), it was important to control for stable ethnic private regard in all analyses.

School-reported ethnic composition index—Based on data available on the New York Department of Education (DOE) website about the percentage of White, Black, American Indian, Asian, Hispanic, and Other students at each school, we created an objective, school-reported diversity index. Employing methods described in Juvonen and colleagues (2006), we computed the ethnic diversity of each student's school based on the percentage of students in each ethnic group. Using the number of different ethnic groups (g) and the proportion of individuals (p) who are members of each group (i), the index (D_C) provides an estimate of the relative probability that two randomly selected students are from different ethnic groups:

$$D_C = 1 - \sum_{i-1}^{g} p_i^2$$

Higher scores (range from 0 to 1) indicate having more Black and White, but fewer Asian, students (Asians in numerical minority); whereas lower scores indicate the presence of more Asian, but fewer Black and White, students (Asians in numerical majority; $M = .65$, $SD = .06$).

Daily ethnic identity—To assess daily ethnic private regard, the MIBI-S private regard scale was adapted for how participants felt that day (Martin, Wout, Nguyen, Sellers, & Gonzalez, 2005). Participants completed two items (e.g., "I was happy that I am my race/ethnicity" ($M = 3.72$, $SD = 1.41$, $\alpha = .87$). To assess daily centrality, participants completed 4 centrality items (e.g., "In general, my race/ethnicity was an important part of my self-image" ($M = 3.38$, $SD = 1.25$, $\alpha = .86$), with response scales ranging from 1 `not at all' to 7 `extremely'.

Daily intragroup contact—During the orientation session, we explained to participants, using the people attending the session as a demonstration, how to distinguish between the two types of intragroup contact constructs. We made sure that participants understood the distinction before moving forward with completing the measures. To assess the amount of active contact with same-ethnic others, participants responded to the following: "Think about all the people who you *interacted with* today. How many were the same race/ethnicity as you?" ($M = 2.34$, $SD = 1.12$). An example of active contact included "someone you talked to today". To assess the amount of passive contact with same-ethnic others, participants responded to the following: "Think about all the people who were *surrounding you* today. How many were the same race/ethnicity as you?" ($M = 2.22$, $SD = 1.12$). An example of passive contact included "someone who was in the same area as you (e.g., cafeteria) but with whom you were not talking". Participants made their responses using the following scale: 1 = `None: 0%', 2 = `About 25%', 3 = `About 50%', 4 = `About 75%', 5 = `All: 100%'.

Control variables—Given their theoretical and statistical relationships with our primary variables, we controlled for the following variables in our analyses.

Day of study: A change in daily ethnic private regard over the course of the study may represent an artifact of the diary method (i.e., explicitly thinking about these feelings on a regular basis may influence people's responses). Therefore, we controlled for this in our analyses. Also, because daily ethnic private regard was correlated with day of the study ($r = -0.71$, $p < .10$), we adjusted for the variable along with type of day (i.e., weekday vs. weekend).

Perceived ethnic composition of contexts: Perceived school ethnic composition was included in the models to account for how participants perceived their school contexts so that the effects of school ethnic composition could be isolated more accurately. We asked adolescents "What percentage of people in your school are: African American/Black, Asian American/Asian, Hispanic/Latino, White, Other, People I cannot identify". Although the focus in this paper is on adolescents' school contexts, we did not restrict the measurement of intragroup contact to school interactions. It was important to account for other proximal settings in which adolescents are likely to interact with same-ethnic others; therefore, perceived neighborhood ethnic composition was included by asking "What percentage of people in your neighborhood are…".

Demographic Control Variables: We included gender and immigration status in the initial models; however, they were removed because they did not affect the overall models.

Results

To examine the correlations between person-level and daily-level variables, we computed the mean of the daily variables across the 7 days of the study (Table 2). Consistent with existing research (e.g., Sellers et al., 1997), there were significant relationships between stable and daily centrality and private regard. The passive and active intragroup contact measures were highly related ($r = .85$, $p < .01$). No mean differences were found by gender, ethnic self-categorization, immigration status or school setting for any of the stable or daily ethnic identity scores.

Since school context (predominantly Asian, predominantly White, or ethnically heterogeneous) could influence the opportunity for intragroup contact, we examined possible mean differences in intragroup contact. There were no differences for passive intragroup contact. However, there was a difference for active intragroup contact ($F(2, 118) = 4.19$, $p < .05$) such that adolescents in the predominantly Asian school reported higher mean levels of active intragroup contact ($M = 2.61$) than adolescents in the heterogeneous schools ($M = 1.59$).

Data Analyses Overview

The nested structure of the data required Hierarchical Linear Models (HLM; Bryk & Raudenbush, 1992). HLM is appropriate for nested data since it allows for simultaneous analyses of data at more than one level. For the current research, it allows investigation into the moderating effects of both personal-level (e.g., identity) and structural- level (e.g., school composition) variation on daily experiences. In the current study, we employ a 3-level model since multiple daily diaries are nested within individuals, who are in turn nested within schools. Level 1 represents daily-level experiences, Level 2 represents adolescents' stable characteristics, and Level 3 represents school characteristics. Notably, although self-reported school (and neighborhood) diversity is based on school-level phenomenon, it represents each adolescent's perception of his/her school; and thus, is treated as a person-level variable (Level 2).

Concurrent Day Models

Daily intragroup contact and private regard—First, we explored the daily-level relationship (Level 1 only) between intragroup contact (interacted with and surrounded by same ethnic others) and private regard without considering personal- and structural-level (Level 2 and Level 3, respectively) moderators (Figure 1). We included daily ethnic centrality as a control variable to account for systematic fluctuations that may occur with private regard. For the Level 1 model, P0 represents the intercept, and E represents the random component of private regard not accounted for in the model.

Level 1 Model:

$$\text{DAILY PRIVATE REGARD}=P0+P1*(\text{DIARY DAY})$$
$$+P2*(\text{WEEKDAY}$$
$$/\text{WEEKEND})+P3*(\text{DAILY CENTRALITY})$$
$$+P4*(\text{INTERACTED})+P5*(\text{SURROUNDED})+E$$

Neither intragroup contact variable –interacting with (P4; Figure 1, Path 1) and being surrounded by (P5; Figure 1, Path 2) same-ethnic people – were associated with daily private regard.

Stable centrality as a moderator—Next, we included stable ethnic centrality at Level 2 to investigate influences on the daily-level association between intragroup contact and private regard (Figure 1, Paths 3 and 4). We also included stable private regard at Level 2 to isolate the daily fluctuations in private regard from stable evaluation of one's ethnic identity. We included all control variables as predictors of the intercept (P0) and the association between intragroup contact and daily private regard (P4, P5). Error terms are indicated by R, and represent the random components not accounted for in the model.

Level 2 Model:

$$P0=B00+B01*(\text{PRIVATE REGARD})$$
$$+B02*(\text{CENTRALITY})+B03*(\text{PERCEPTIONS OF SCHOOL ETHNIC COMPOSITION})+B04*(\text{PERCEPTIONS}$$

$$P1=B10$$

$$P2=B20$$

$$P3=B30+R3$$

$$P4=B40+B41*(\text{PRIVATE REGARD})$$
$$+B42*(\text{CENTRALITY})+B43*(\text{PERCEPTIONS OF SCHOOL ETHNIC COMPOSITION})+B44*(\text{PERCEPTIONS}$$

P5=B50+B51 ∗ (PRIVATE REGARD)

  +B52∗(CENTRALITY) +B53∗(PERCEPTIONS OF SCHOOL ETHNIC COMPOSITION) +B54∗(PERCEPTIONS

Stable centrality (P5, B52) moderated the daily-level relationship between being surrounded by same-ethnic others and ethnic private regard (Table 3). As hypothesized, simple slopes tests found that For Asian adolescents who reported that their ethnic identity was important to them (top 15%), being surrounded by more Asians was associated with feeling more positive about being a member of their ethnic group ($b = .73$, $SE = .09$, $p < .05$; Figure 2). In contrast, Asian adolescents who reported lower levels of ethnic identity centrality (lowest 15%) showed a negative daily-level association between being surrounded by same-ethnic others and private regard ($b = -1.73$, $SE = .06$, $p < .01$). For Asian adolescents who reported that their ethnic identity was not important, being surrounded by more Asians was associated with feeling worse about being a member of their ethnic group.

In contrast to being surrounded by other Asians, there was no moderating effect of centrality on interacting with same-ethnic others. Consistent with results found for Level 1, interacting with same-ethnic others was not related to daily private regard (Table 3).

School ethnic composition as a moderator—Building upon the previous model, we included objective school ethnic composition at Level 3 to examine if it moderated the relationship between stable centrality and interacting with same-ethnic others on private regard (B42, G421, Figure 1, Path 5) as well as moderated the relationship between stable centrality and being surrounded by same-ethnic others on private regard (B52, G521; Figure 1, Path 6). Results revealed a significant 3-way interaction between structural (i.e., school ethnic composition), personal (i.e., stable ethnic centrality), and daily (i.e., surrounded by same-ethnic others) factors for ethnic private regard (Table 3). For clarity, we present the simple slopes for this interaction by school context (i.e., predominantly Asian, predominantly White, and heterogeneous).

Predominantly Asian school: For Asian adolescents attending a predominantly Asian school, there was no daily-level relationship between being surrounded by same-ethnic others and private regard regardless of stable centrality (Figure 3a); simple slopes tests found that the slopes for high and low centrality were not significantly different from 0. Therefore, there does not seem to be an association between daily passive intragroup contact and private regard for Asian adolescents attending a predominantly Asian school. In addition, there was no difference between the intercepts for the high and low centrality adolescents, suggesting that there were no differences for private regard according to centrality.

Predominantly White school: For Asian adolescents attending the predominantly White school, centrality influenced the daily-level relationship between being surrounded by same-ethnic others and private regard (Figure 3b). Specifically, for Asian adolescents who reported that their ethnic identity was important to them, on days when they were surrounded by more Asians, the better they felt about being a member of their ethnic group ($b = .04$, $SE = .02$, $p < .05$). However, for Asian adolescents who reported that their ethnic identity was not important to them, the more Asians they were surrounded by the worse they felt about being a member of their ethnic group ($b = -.35$, $SE = .01$, $p < .01$).

Heterogeneous school: For Asian adolescents attending heterogeneous schools, centrality influenced the daily-level relationship between being surrounded by same-ethnic others and private regard similar to patterns observed in predominantly White schools (Figure 3c).

Specifically, for Asian adolescents who reported that their ethnic identity was important to them, the more Asians they were surrounded by the better they felt about being a member of their ethnic group ($b = .17$, $SE = .02$, $p < .05$). However, for Asian adolescents who reported that their ethnic identity was not important to them, the more Asians they were surrounded by the worse they felt about being a member of their ethnic group ($b = −.20$, $SE = .01$, $p < .01$).

In contrast to being surrounded by same-ethnic others, there was no moderating effect of school composition on the relationship between stable centrality and interacting with same-ethnic others on private regard. Consistent with all previous results, active contact did not predict daily private regard (Table 3).

Establishing Directionality

Having established that the daily-level association between being surrounded by same-ethnic others and private regard varies by adolescents' centrality and school ethnic composition, we turned to the directionality of this relationship, which will address the degree to which adolescents demonstrate agency in selecting their daily transient contexts. We used HLM time lag analyses to examine if previous day experiences (d-1) predict current day (d) outcomes.

Predicting private regard—We included the same control variables as those in the previous set of concurrent day analyses. First, current day (d) private regard was modeled as a function of being surrounded by and interacting with same-ethnic others on the previous day and previous day private regard (d-1), controlling for same day contact. We tested interacting with same-ethnic others in these models because although the concurrent day models did not reveal significant effects, it is possible that the lagged analyses would. There were no significant relationships between the previous day intragroup contact variables [interacted with (B60; Figure 1, Path 1) and surrounded by (B70; Figure 1, Path 2)] and private regard (Table 4). Second, stable centrality was entered as a Level 2 moderating variable (P6, B62; P7, B72). Because previous day (d-1) contact was of central interest in these analyses, we entered all Level 2 variables as predictors of previous day intragroup contact, while same-day intragroup contact was controlled (Interacted with, B40; Surrounded by, B50). Mirroring concurrent day results, stable centrality (P7, B72; Figure 1, Path 4) moderated the daily-level relationship between being surrounded by same-ethnic others on the previous day and private regard. Specifically, simple slope analyses indicated that for Asian adolescents who reported that their ethnic identity was important to them, the more they were surrounded by same-ethnic others the previous day, the better they felt about being a member of their ethnic group the next day ($b = 2.32$, $SE = .01$, $p < .01$). However, for Asian adolescents who reported that their ethnic identity was not important to them, the more they were surrounded by same-ethnic others the previous day, the worse they felt about being a member of their ethnic group the next day ($b = −1.56$, $SE = .07$, $p < .01$). Finally, we included objective school ethnic composition as a Level 3 indicator (B42, G421; Figure 1, Path 5 and B52, G521; Figure 1, Path 6). Results revealed a significant 3-way cross-level interaction that was consistent with the results from the concurrent day models. For clarity, corresponding simple slopes results are presented by school context.

Predominantly Asian school: For Asian adolescents attending school with a predominantly Asian population, simple slopes test revealed no significant relationship between being surrounded by same-ethnic others the previous day and next day private regard regardless of students' level of centrality. The slopes for high and low centrality were not significantly different from 0, and the intercepts were not different from each other.

Predominantly White school: For Asian adolescents attending a predominantly White school, centrality influenced the relationship between being surrounded by same-ethnic others the previous day and private regard the next day. Specifically, for Asian adolescents who reported that their ethnic identity was important to them, the more they were surrounded by Asians the previous day, the better they felt about being Asian the next day (b = .13, SE = .01, p < .01). However, for Asian adolescents who reported that their ethnic identity was not important to them, the more they were surrounded by Asians the previous day, the worse they felt about being Asian the next day (b = −.10, SE = .01, p < .01).

Heterogeneous school: For Asian adolescents attending an ethnically heterogeneous school, centrality influenced the relationship between being surrounded by same-ethnic others the previous day and private regard the next day. Specifically, for Asian adolescents who reported that their ethnic identity was important to them, the more they were surrounded by Asians the previous day, the better they felt about being Asian the next day (b = .40, SE = .01, p < .01). However, for Asian adolescents who reported that their ethnic identity was not important to them, the more they were surrounded by Asians the previous day, the worse they felt about being Asian the next day (b = −.10, SE = .01, p < .01).

Predicting intragroup contact—To determine whether ethnic private regard predicts subsequent day intragroup contact, we modeled current day (d) intragroup contact as a function of previous day private regard and previous day contact (d-1), controlling for same day private regard and intragroup contact (d). We conducted one model for contact measured as surrounded by same-ethnic others and one model for contact measured as interacting with same-ethnic others (Figure 4). We used the same control variables as in previous models.

Surrounded by same-ethnic others: First, there was no significant relationship between previous day private regard and being surrounded by same-ethnic others the next day (Figure 4, Path 1). Second, we entered stable centrality as a Level 2 moderating variable (Figure 5, Path 2). Because previous day (d-1) private regard is the predictor of interest in the current model, we entered all Level 2 variables as predictors of previous day private regard (P4). Unlike previous models, none of the Level 2 models moderated the association between private regard the previous day and being surrounded by other Asians the next day. Finally, we included objective school ethnic composition at Level 3 (Figure 5, Path 3); however, there was no significant effect. These null findings suggest that the daily-level relationship between being surrounded by other Asians and private regard is unidirectional; specifically, that being surrounded by Asians the previous day predicts private regard the next day rather than the reverse.

Interacting with same-ethnic others: First, there was no significant relationship between private regard the previous day and interacting with Asians the next day (Figure 4, Path 1). Second, we entered stable centrality as a Level 2 moderating variable (Figure 4, Path 2). Since previous day (d-1) private regard is the predictor of interest in the current model, we entered all Level 2 variables as moderators of previous day private regard (P4). None of the Level 2 variables moderated the daily-level associations. Finally, we included objective school ethnic composition at Level 3 (Figure 4, Path 3); however, there was no significant effect. Together, these null findings suggest that Asian adolescents do not demonstrate agency in interacting with same-ethnic others today based on the previous day's feelings about their ethnic group.

Discussion

We employed ecological and Self Categorization (Turner et al., 1987) theories to examine how contact with same-ethnic others, ethnic centrality, and school ethnic composition shape Asian adolescents' feelings about their ethnic group. We found that Asian adolescents' daily ethnic private regard varied by personal and structural factors. In schools where the majority of peers were White or where there was no single majority ethnic population, Asian adolescents who were highly identified with their ethnic group reported feeling better about their ethnic group on days that they were surrounded by other Asians. However, in these same school settings, Asian adolescents who were less identified with their ethnic group reported feeling worse about their ethnic group on days that they were surrounded by other Asians. In addition, being surrounded by same-ethnic others had a carry-over effect on ethnic identity for Asians who highly identified with their ethnic group. Specifically, the more Asians they were surrounded by on one day, the more positively they felt about their ethnic group the next day. Collectively, these findings highlight the importance of studying the confluence of adolescents' daily experiences across contexts, and they contribute to work on how distal and proximal contexts influence ethnic identity development over time (e.g., Tsai & Fuligni, 2011).

Not only did we observe that intragroup contact has implications for how Asian adolescents feel about their ethnic group, but we also note that the form of intragroup contact matters. Recognizing that intragroup contact has been conceptualized and operationalized in multiple ways - simply being surrounded by same-ethnic others and actually interacting with same-ethnic others - we included both constructs. One major contribution of our work is that we found that simply having same-ethnic others around is more influential than interacting with them. This is particularly the case for Asian adolescents who reported that their ethnic identity was important to them and attended predominantly White or ethnically heterogeneous schools. This finding is consistent with existing research that shows that the presence of similar others is comforting and associated with more positive self-perceptions (Zhou, 2006), particularly when one's group is in the minority (Frable et al., 1998). When similar others are not typically available, their presence may be associated with increased self-perception because similar others generally have a more positive view of other in-group members and are able to nurture one's ethnic identity (Frable et al., 1998). Interestingly, we found consistent effects for the mere presence of same-ethnic others, but no effects for more involved interactions. It is possible that social comparison dynamics (Festinger, 1954) may explain this difference; when individuals engaged in active intragroup contact, there is an opportunity for the interaction to be positive (i.e., identity affirming) or negative (i.e., identity rejecting). Passive contact (e.g., just seeing another Asian person in the room), however, is likely valence-neutral because social comparison dynamics may be less relevant. For Asian adolescents who are in the minority in their school, the mere presence of same-ethnicity others seems to provide comfort and positivity.

Ethnic identity centrality has been found to moderate a variety of associations (Rowley, Sellers, Chavous, & Smith, 1998; Shelton & Sellers, 2000). Consistent with this previous work, we found that ethnic centrality is an important individual difference in adolescents' daily lives. While existing research shows that contact with similar others is associated with positive self-perceptions (Frable et al., 1998), we found that this relationship was only true for adolescents who were highly identified with their ethnic group. For adolescents who reported that being Asian was important to their identity, being surrounded by Asians was associated with feeling good about being Asian. In contrast, for Asian adolescents who reported that being Asian was less important, being surrounded by Asians was associated with feeling worse about being Asian. Contact with other Asians only conferred positive benefits to the ethnic feelings of adolescents who valued their ethnic identity; a finding

consistent with Self Categorization Theory's notion that identity-relevant environmental cues (i.e., intragroup contact) have more impact on individuals who value that identity (Turner et al., 1987).

Consistent with developmental theorists who underscore the importance of youths' daily contexts (Barker, 1968; Gallimore, Goldenberg, & Weisner, 1993), we found that school ethnic context played a significant role in how Asian adolescents daily feelings about their ethnic group. As expected, schools in which Asian adolescents were in the numerical majority differed from those in which they were not. Adolescents in predominantly Asian schools reported no daily-level association between intragroup contact and private regard, irrespective of individual differences in centrality. Perhaps, for these adolescents, being surrounded by other Asian adolescents is the "norm" and therefore did not have any bearing on their feelings about being Asian. Or, as Self Categorization Theory (Turner et al., 1987) would predict, personal attributes are more salient than group-level identities when adolescents are in predominantly in-group settings. In support of this hypothesis, although intragroup contact has typically been portrayed as positive, this is not always the case. Research on ethnic discrimination finds that Asian American adolescents are particularly likely to be targeted by in-group members (Fisher et al., 2000; Rivas-Drake et al., 2008). Asians comprise a diverse group that includes over 30 different ethnic groups (Espiritu, 1992); coupled with differences in language, generational status and SES, there are many opportunities to create distinctions within the group. Consistent with Social Comparison Theory (Festinger, 1954) and as observed in ethnographic work (Lee, 1996), interacting with same-ethnic others includes both negative and positive exchanges. We also note that although some of the Asian adolescents in our sample attended schools in which they were in the majority, in the larger United States context, Asians comprise only 5% of the population.

In contrast, Asian adolescents who were in predominantly White schools or schools with no clear ethnic majority were likely to find being surrounded by other Asians a relatively rare occurrence. As such, on days in which Asian adolescents at these schools were around other Asians, they reported differences in private regard based on feelings of centrality. Specifically, for adolescents who reported that being Asian was important to their identity, being surrounded by Asians was associated with feeling good about being Asian. In contrast, for Asian adolescents who reported that being Asian was less important to them, being surrounded by Asians was associated with feeling worse about being Asian. Asian adolescents whose ethnicity is not important to them are likely to have other identities (e.g., religion) that are more integral to their identity. When one makes a conscious decision to make ethnicity not important to one's overall identity, the presence of other Asians may be associated with lower private regard because the in-group serves as a reminder of that decision. Therefore, students may experience the same setting in different ways depending on the attachment to their ethnic identity.

The literature on ethnic identity development has characterized adolescents as "recipients" and "agents" of socializing forces such as parents, peers, schools, and neighborhoods (Hughes & Chen, 1997; Seaton & Yip, 2009). We conducted time lagged analyses to examine if adolescents' daily ethnic private regard fluctuated according to socializing forces in their immediate context. Specifically, we explored whether the amount and type of intragroup contact adolescents had on one day predicted their ethnic private regard the next day, or whether ethnic private regard one day predicted the amount and type of intragroup contact the next day. While the former suggests that adolescents seek to affiliate with in-group members as a consequence of their positive ethnic feelings, the latter suggests that adolescents are responsive to their environments. We found that the more adolescents were surrounded by same-ethnic others one day, the more positively they felt about their ethnic

group the next day; the reverse, however, was not true. Notably, this effect was not found for how much adolescents interacted with same-ethnic others, suggesting that simply being surrounded by other Asians was sufficient to influence private regard the next day. Daily intragroup contact has been theorized as predicting subsequent feelings of ethnic identity (Levin et al., 2003; Tatum, 1997), and we found empirical support for this. Although our data paint a portrait of adolescents who are responding to their environments rather than creating them, we propose a few caveats. First, we observed results for passive, not active, contact and it may be more difficult for adolescents to exert control over who surrounds them. Second, our data represent 9th grade adolescents; it is possible that as adolescents develop, they exert more agency over their environments. Finally, we only examined the associations between private regard and intragroup contact; it is possible that examining other variables, such as friendship affiliation, would shed more light on how adolescents affect their ethnic identity development.

Although the current study makes a significant contribution to the understanding of adolescent ethnic identity, limitations remain. For one, although we examined the quantity of contact with same-ethnic others, we did not examine the quality of this contact and we believe that this is an important area for future research. On a related note, while no participants indicated having questions or concerns about answering questions about contact with "same-ethnicity" others, as suggested by Self Categorization Theory's notion of *comparative context* (Turner et al., 1987), the interpretation of the question could vary across contexts. For example, in situations where Asians are in the minority, "sameness" might involve the inclusion of multiple Asian ethnicities to form a pan-ethnic category (Espiritu, 1992). However, in settings that are predominantly Asian and include a diversity of Asian ethnicities, definitions of "sameness" may only include individuals who are the same ethnicity (Lee, 1996). Because the question did not ask participants to differentiate between race and ethnicity, we are unable to disentangle such differences. Moreover, while our data represents a dynamic snapshot of ethnic identity development, in order to truly understand the development of stable ethnic identity it would be important to explore these associations longitudinally. We may find, for example, that the daily pairing of intragroup contact and private regard has implications for how adolescents develop a sense of stable centrality or private regard one year later, thereby directly linking daily experiences to longer-term developmental process. It seems plausible that adolescents who experience daily increases in private regard may, over time, develop a stronger attachment to their ethnic identity. Additionally, future research would also benefit from exploring other contexts that influence adolescent development (i.e., work, church) which may vary in diversity. Since the current paper includes only an Asian sample, we do not know if the same patterns would be observed in other groups or between Asian subgroups. Also, our sample is predominantly female, which makes it difficult to observe possible gender effects. Finally, we call attention to possible measurement issues. We adapted the centrality and private regard subscales from the Multidimensional Inventory of Black Identity (Sellers et al., 1997) which was developed for and normed on African American samples. "Black" from the original scale was replaced with "your ethnic/racial group"; in doing so, lower reliability was observed for the centrality subscale than has typically been found among African American samples.

Concluding Thoughts

Considering daily intragroup contexts, school ethnic composition and individual differences in ethnic identity, this study highlights the importance of examining the confluence of these factors in understanding adolescents' everyday experiences of ethnicity and race. Coupled with existing cross-sectional and longitudinal data, we can begin to develop a richer and more nuanced understanding of the role of ethnicity and race in adolescents' daily lives. In doing so, we move away from conceptualizing and operationalizing ethnicity and race as

static characteristics of adolescents, but rather as a lens through which everyday experiences are lived.

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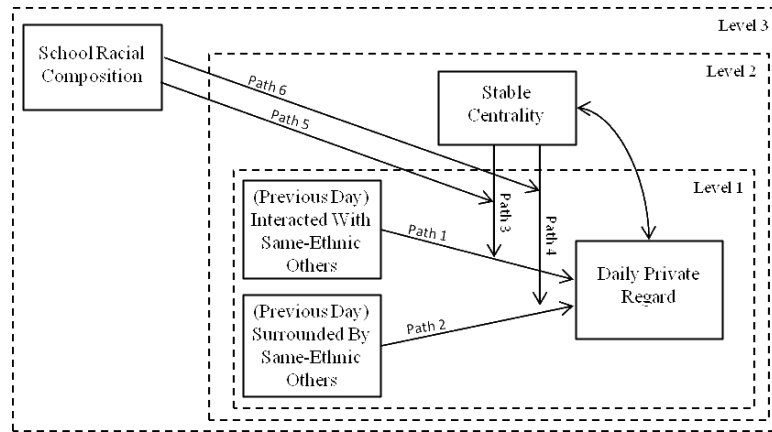
Figure 1.
Schematic for multilevel model investigating relationship of same day (and previous day) interacting with and being surrounded by same-ethnic others with daily private regard. Parallel but independent models were run for same day and previous day analyses.
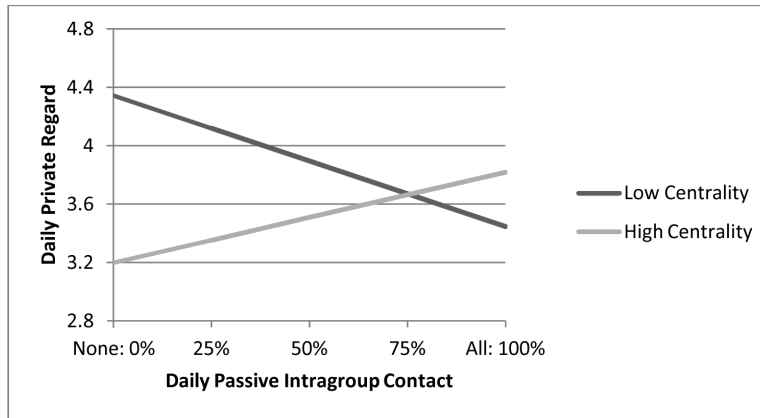
Figure 2.
Interaction between stable ethnic identity centrality and being surrounded by same-ethnic others predicting daily private regard.

Predominantly Asian School

Daily Private Regard (y-axis: 2.8, 3.2, 3.6, 4, 4.4, 4.8)

Daily Passive Intragroup Contact (x-axis: None: 0%, 25%, 50%, 75%, All: 100%)

— Low Centrality
— High Centrality

Figure 3a.
The moderating effect of ethnic identity centrality on the daily-level relationship between being surrounded by same-ethnic others and private regard in the predominantly Asian school

Predominantly White School

Daily Private Regard (y-axis: 2.8, 3.2, 3.6, 4, 4.4, 4.8)

Daily Passive Intragroup Contact (x-axis: None: 0%, 25%, 50%, 75%, All: 100%)

— Low Centrality
— High Centrality

Figure 3b.
The moderating effect of ethnic identity centrality on the daily-level relationship between being surrounded by same-ethnic others and private regard in the predominantly White school
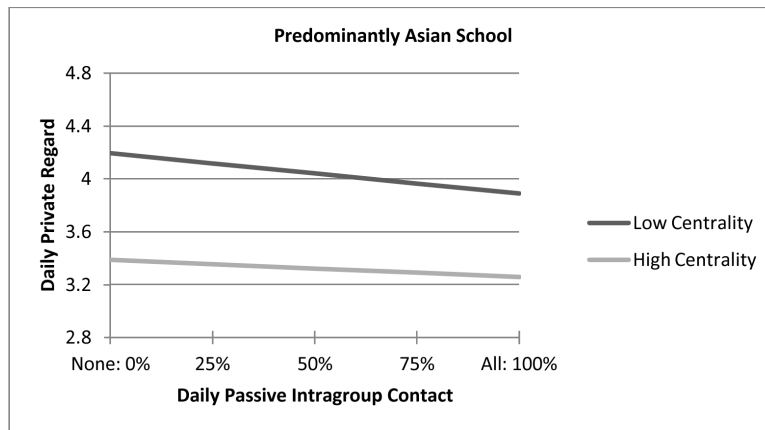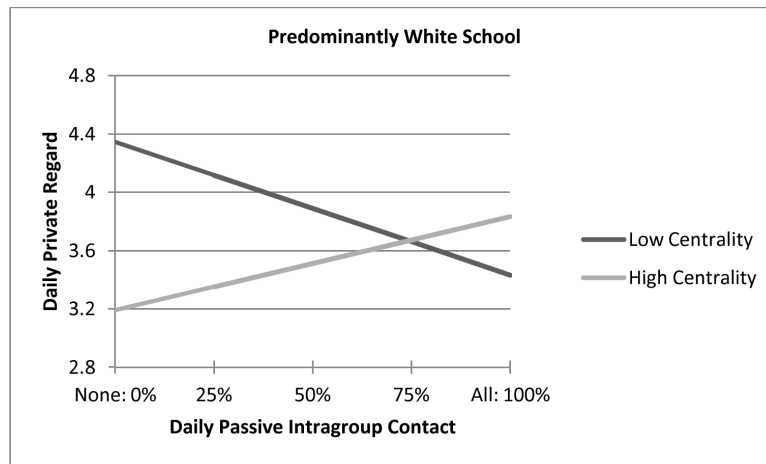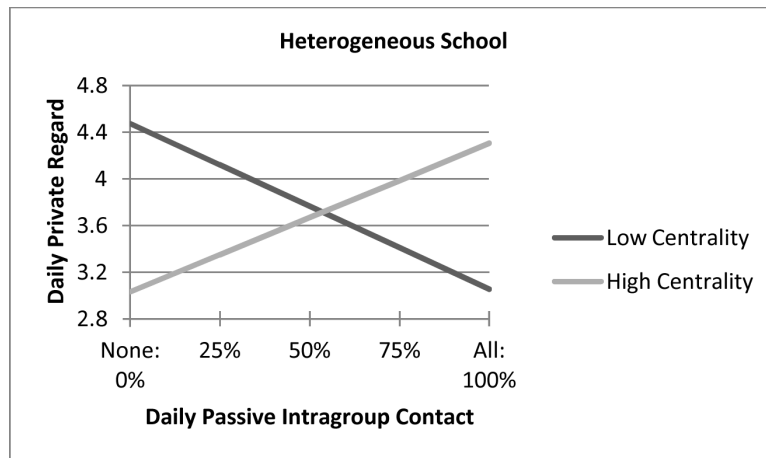
Figure 3c.
The moderating effect of ethnic identity centrality on the daily-level relationship between being surrounded by same-ethnic others and private regard in the heterogeneous schools
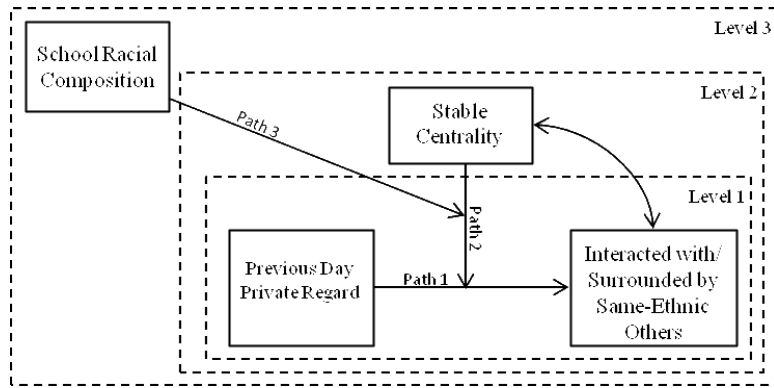
Figure 4.
Schematic for multilevel model using previous day private regard to predict interacting with same-ethnic others or being surrounded by same-ethnic others, as moderated by stable centrality and school ethnic composition. Parallel but independent models were run for interacting with and being surrounded by same-ethnic others.

Table 1

School Ethnic Compositions

School	Total Sample	Asian in School	Black in School	Latino in School	White in School
Predominantly Asian	33%	58%	7%	11%	24%
Predominantly White	38%	28%	9%	14%	47%
Heterogeneous	24%	28%	13%	24%	34%
Heterogeneous	5%	16%	22%	28%	33%

Table 2

Bivariate correlations among study variables.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Stable Centrality	--	.53***	−.14	−.04**	−.08	.54***	.40***	.19*	.15
2. Stable Private Regard		--	−.12	−.17+	−.20*	.46***	.67***	.22*	.12
3. DOE-reported School Ethnic Comp.			--	.14	−.03	−.15	−.05	−.13	−.16
4. Perceptions of School Ethnic Comp.				--	.32**	−.25**	−.22*	−.07	−.09
5. Perceptions of Neighborhood Ethnic Comp					--	−.11	−.13	−.26**	−.27**
6. Daily Centrality						--	.74***	.26**	.27**
7. Daily Private Regard							--	.31**	.23*
8. Daily Contact – Interacted with								--	.85**
9. Daily Contact – Surrounded by									--

Note:

School Comp. refers to school ethnic composition. Neighborhood Comp. refers to neighborhood ethnic composition

+ p < .10,

* p < .05,

** p < .01,

*** p < .001.

Table 3

HLM estimates of daily intragroup contact predicting daily private regard moderated by stable ethnic identity centrality and school ethnic composition.

		B	SE
Daily Private Regard	B00, G000	1.31	0.62
Stable Private Regard	B01, G010	0.80	0.23
Stable Centrality	B02, G020	−0.43	0.18
Self-reported School Comp.	B03, G030	0.36	0.95
Self-reported Neigh. Comp.	B04, G040	0.35	0.80
Day of Study	B10, G100	−0.03	0.02
Day Type	B20, G200	0.04	0.12
Daily Centrality	B30, G300	0.62 ***	0.08
Contact – Interacted	B40, G400	0.26	0.33
Stable Private Regard	B41, G410	−0.47	0.75
DOE-reported School Comp	B41, G411	0.70	1.08
Stable Centrality	B42, G420	0.61	0.62
DOE-reported School Comp	B42, G421	−1.03	0.90
Self-reported School Comp.	B43, B430	−0.30	0.52
Self-reported Neigh. Comp.	B44, B440	−0.04	0.28
Contact – Surrounded	B50, G500	−0.38	0.31
Stable Private Regard	B51, G510	1.40	0.79
DOE-reported School Comp	B51, G511	−2.17	1.15
Stable Centrality	B52, G520	−1.39 *	0.66
DOE-reported School Comp	B52, G521	2.38 *	0.97
Self-reported School Comp.	B53, G530	0.45	0.40
Self-reported Neigh. Comp.	B54, G540	0.04	0.31

Note:

+ $p < .10$,

** $p < .01$,

Using methods described in Xu (2003) the R^2 for the above model is estimated to be 0.37; such that 37% of the observed variability in daily private regard is explained by the variables included in the model.

* $p < .05$,

*** $p < .001$.

Table 4

HLM estimates of previous day intragroup contact predicting daily private regard moderated by stable ethnic identity centrality and school ethnic composition

		B	**SE**
Daily Private Regard, d	B00, G000	−0.68	0.85
Stable Private Regard	B01, G010	0.42	0.40
Stable Centrality	B02, G020	−0.16	0.34
Self-reported School Comp.	B03, G030	1.35	1.12
Self-reported Neigh. Comp.	B04, G040	1.05	1.39
Day of Study	B10, G100	−0.01	0.03
Day Type	B20, G200	0.09	0.11
Daily Centrality, d	B30, G300	0.59[**]	0.10
Contact – Same Day Interacted, d	B40, G400	0.03	0.08
Contact – Same Day Surrounded, d	B50, G500	−0.08	0.06
Contact –Previous Day Interacted, d-1	B60, G600	0.17	0.31
Stable Private Regard	B61, G610	0.06	0.80
DOE-reported School Comp	B61, G611	0.05	1.17
Stable Centrality	B62, G620	0.76	0.69
DOE-reported School Comp	B61, G611	−1.20	1.01
Self-reported School Comp.	B63, G630	−0.24	0.44
Self-reported Neigh. Comp.	B64, G640	−0.08	0.29
Contact – Previous Day Surrounded, d-1	B70, G700	−0.01	0.32
Stable Private Regard	B71, G710	0.59	0.85
DOE-reported School Comp	B71, G711	−1.04	1.24
Stable Centrality	B72, G720	−2.70[***]	0.79
DOE-reported School Comp	B72, G721	4.16[***]	1.18
Self-reported School Comp.	B73, G730	0.26	0.55
Self-reported Neigh. Comp.	B74, G740	−0.10	0.34
Previous Day Private Regard, d-1	B80, G800	0.23	0.14

Note:

+ $p < .10$,

* $p < .05$,

Using methods described in Xu (2003) the R^2 for the above model is estimated to be 0.49; such that 49% of the observed variability in daily private regard is explained by the variables included in the model.

[**] $p < .01$,

[***] $p < .001$.