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The Effects of Contact with Asians and Asian Americans on White American College Students: Attitudes, Awareness of Racial Discrimination, and Psychological Adjustment

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ORIGINAL PAPER

The Effects of Contact with Asians and Asian Americans on White American College Students: Attitudes, Awareness of Racial Discrimination, and Psychological Adjustment

**Khanh T. Dinh · Traci L. Weinstein ·
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Abstract On the basis of acculturation theory, explicating mutual influences between different cultural or ethnic groups coming into contact, this study focused "on the other side of acculturation" theory by examining the effects of intercultural contact with Asians and Asian Americans on the psychosocial experiences of White American college students. Participants ($N = 315$), undergraduates attending a public university located within the state of Massachusetts, completed a survey that assessed demographic and personal characteristics, acculturation (extent of intercultural contact with Asian people and Asian cultures), attitudes towards Asians and Asian Americans, awareness of institutional discrimination and blatant racial issues, and psychological distress. Results indicated that White American students' intercultural contact with Asians and Asian Americans contributed significant variance to the prediction of their attitudes towards this ethnic group and awareness of discrimination and racial issues, but not to psychological distress. This study provides implications for understanding mutual acculturative influences between different ethnic groups in the United States.

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Introduction

Much focus in the field of acculturation has been on the impact of intercultural contact with host individuals and communities on immigrant or minority individuals and groups. A complementary focus on the impact of intercultural contact on hosts or majority groups, especially White individuals and communities, would provide a more complete picture of the *mutual* acculturative dynamics between different ethnic or cultural groups, whether between hosts and immigrants and/or between majority and minority groups. It also would provide implications for facilitating better inter-ethnic relations in the United States. This study is designed to examine the effects of intercultural contact with Asians and Asian Americans on the psychosocial experiences of White American college students.

Asian Population in the United States

Globally, the Asian population is in the majority, comprising about 60% of the world's population (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat 2006), but in the United States, they are in the minority, at only 4% (U.S. Census Bureau 2002). Nonetheless, there has been a dramatic increase in the Asian population in the U.S. over the last several decades. Furthermore, this population is projected to increase from 12 million in the year 2000 (U.S. Census Bureau 2000) to 20 million by the year 2020 (Ong et al. 2000) and 35 million by 2050 (Reynolds 2004), and much

of these increases will be associated with immigration. Indeed, the U.S. Census (2000) indicates that 71% of what the government labels as the "Asian American" population is comprised of first-generation immigrants. Research shows that the life experiences of Asian Americans, especially those of first-generation immigrants, have been impacted by their exposure to mainstream U.S. culture and their intercultural contact with U.S.-born Americans, especially Whites. However, due to little or no available research, it is unclear as to whether intercultural contact with people of Asian ethnicity has had an impact on the life experiences of White individuals. The underlying premise of acculturation theory would suggest that various immigrant and/or minority individuals and groups, including those of Asian ethnicity, do have an impact on the life experiences of White or majority groups and individuals.

There is historical evidence of intentional acts of violence and prejudice committed against individuals of Asian backgrounds going as far back as the 1840's, leading to the Chinese Exclusion Act of 1882 (Yu 2006). Such acts represented the negative beliefs and attitudes of the majority population that Asians were untrustworthy and troublesome to the U.S. This common attitude changed in somewhat the opposite direction starting in the 1960's, with the majority population viewing Asians and Asian Americans as the "model minority." This seemingly benevolent attitude held new consequences for members of the Asian American community, who were now expected to have the ability to overcome any and all obstacles, including those inherent to the process of adapting to life in the U.S. At the same time, many Asian Americans continued to experience other forms of prejudice and stereotypes, including the "perpetual foreigner" stereotype, in which they are perceived as "exotically foreign or not American" even when born in the U.S. and/or when their families have been in the U.S. for several generations (Ancheta 1998; Ng et al. 2007; Wong and Halgin 2006; Yu 2006). Thus, it is also important to investigate a broad range of attitudes that White Americans may currently hold towards Asians and Asian Americans, which have not been examined in previous research.

Acculturation Theory and Acculturative Stress

As a country built upon the foundation of immigration, acculturation is a key factor that must be recognized when examining life experiences in the United States. Millions of immigrants enter the U.S. every year, representing an increasingly diverse landscape of culture, language, and behavior. Acculturation has been defined as a *mutual* change process that occurs when individuals and groups from different cultures come into continuous first-hand contact with one another (Redfield et al. 1936). More recently, John Berry and colleagues (e.g., 2002, 2003,

2006) expanded on this original concept to include psychological, behavioral, and sociocultural factors, as well as the notion of stress and distress, within the theoretical framework of acculturation for both immigrants and hosts. On the basis of Berry's theoretical framework, the acculturation process may result in a variety of psychosocial and behavioral changes for U.S.-born White individuals who have continuous contact in their daily life with members of different ethnic and/or immigrant groups. These changes can vary as a function of multiple variables, such as age, generational status, educational level, and/or socioeconomic status. Such changes are already known to exist for members of various immigrant and ethnic groups adapting to U.S. or dominant society (Berry 2003), but whether similar psychosocial changes also occur among host or dominant members are not well established in the current literature. Moreover, research focusing on the acculturative experiences of Whites in relation to contact with people of Asian ethnicity is non-existent.

Stress and distress have been found to be pervasive consequences of the acculturation process (Berry et al. 2002), which is particularly salient in the United States as new arrivals struggle with inclusion into a dominant U.S. society that has historically held strong beliefs, often negative, about new immigrants. For example, Birman et al. (2002) describe how stress can occur as immigrants, including those from White European backgrounds, adjust to the differences between their host and native cultures. Incongruence between the two cultures (e.g., differences in language and cultural behavior and values, etc.) can lead to stress and distress for immigrant individuals and groups. Stress arising from the acculturation process may affect various dimensions of social and psychological well-being for new immigrants, including anxiety, depression, and psychosomatic symptoms (Berry et al. 2002). On the other side of acculturation, it is also important to examine whether this same process of acculturative stress occurs, with similar effects on social and psychological well-being, for members of the U.S. majority group who may also be adjusting to new immigrant cultures within the context of prolonged contact or exposure.

Contact Theory as Complementary in Research on Mutual Acculturation and White Racial Attitudes

Contact theory is complementary to acculturation theory and provides a related perspective for thinking about mutual acculturation between different cultural/ethnic groups. This theory emerged as researchers struggled to find valid scientific methods for studying racial attitudes of White individuals in the United States (Pettigrew and Tropp 2006). Early research in this area found that increased contact between majority and minority groups in

the U.S. resulted in more positive relations between members of both groups towards each other. As contact theory evolved from such studies, researchers found that reduced intergroup prejudice was most effective when both groups held equal societal status, when there were shared goals between both groups, when intergroup cooperation resulted from the drive to achieve shared goals, and when there was general support of positive intergroup contact from larger societal levels (Allport 1954, as cited in Pettigrew 1998). Although it is clear that such optimal conditions are often not present in everyday life, a meta-analysis of contact theory research does support the main tenet of contact theory—that increased intergroup contact does significantly improve intergroup interactions (Pettigrew and Tropp 2006). With regard to this current study, the tenet of contact theory would suggest that White Americans' increased contact with people of Asian ethnicity would lead to more positive interactions and attitudes of the former towards the latter group.

One setting in which further research on intergroup contact should focus is college campuses, for a number of reasons. For young adults, but also for older students, of White/Anglo background, attending college may represent their first prolonged exposure to members of other ethnic or cultural groups. Furthermore, college is typically characterized by a struggle of young adults to "find themselves," away from the familiar contexts of childhood family and friends. As such, they may engage in the process of developing their own beliefs and values, distinct from those that have been shaped in the past by family and other social influences. Chavous (2005) notes that messages that challenge societal racial biases and discrimination tend to be more prevalent on college campuses, as evident in various curricula, university policies and procedures, and campus discussions of current events. Thus, "race" and ethnicity become more salient factors on many college campuses as contacts between members from the ingroup and outgroup have the potential to become either increasingly fractious or advantageous. As a result, the opportunities for intercultural contacts with members of other ethnic and cultural groups may have a significant influence on White individuals' social and psychological factors, including their attitudes towards other ethnic groups and their general awareness of racial issues.

The Importance of Demographic & Personal Characteristics

While the acculturative experiences of majority members and groups (e.g., White Americans) have received little attention from researchers, the attitudes of White Americans towards minority groups, namely African Americans, have received some attention in previous research. This research shows that demographic characteristics, such as age, gender, and level of education, tend to influence racial attitudes of White Americans towards minority members. For example, previous studies have found that female White Americans tend to report lower levels of negative racial attitudes and higher levels of tolerance than their male counterparts, as do White Americans who have attained higher levels of education (Carter 1990; Pope-Davis and Ottavi 1994; Sears et al. 1997). In addition, Pope-Davis and Ottavi (1994) found that older White participants reported lower levels of racist attitudes than did younger participants, which the authors suggest may be a function of maturity level.

Self-esteem and social competence are two personal factors that have been shown to impact White Americans' attitudes towards minority group members. For example, anxiety and negative attitudes toward minority members have been found to be interrelated for White participants, and both variables were associated with lower self-esteem (Utsey et al. 2002). Furthermore, Utsey and colleagues also found that negative attitudes towards minority members were linked to depression and poorer psychological functioning for White participants. Social competence, on the other hand, has been shown to be related to positive interactions with members of one's outgroup—individuals with positive interracial interactions experience higher social competence (Hunter and Elias 1999). Previous research has tended to focus primarily on the attitudes of White Americans towards African Americans. The current study examined whether there is a similar pattern of relationships among intergroup contact opportunities, personal characteristics, and racial attitudes towards Asians and Asian Americans for White Americans.

Purpose of Current Study

The purpose of this study, guided by the premises of acculturation theory and contact theory, was to examine the acculturative experiences of White American college students. Specifically, we were interested in the relationship of White American college students' intercultural contact with Asians and Asian Americans and Asian cultures to their (1) attitudes towards Asians and Asian Americans, (2) awareness of institutional discrimination and blatant racial issues in U.S. society, and (3) psychological distress. We predicted that after considering the effects of demographics (age, gender, parental education, parental socioeconomic status) and personal characteristics (self-esteem and social competence), White American students' acculturation (greater intercultural contact with Asians and Asian Americans and exposure to Asian cultures) would be associated with more positive attitudes

towards this group, more awareness of discrimination and racial issues in U.S. society, and better psychological adjustment.

For ease of presentation, the label "Asians/Asian Americans" is used in the remaining sections of this article. This label includes individuals of Asian ethnicity residing outside or within the United States, whether they are U.S. citizens, permanent residents (i.e., green card), undocumented immigrants, temporary visa workers, international students and scholars, tourists, etc. We were interested in a global assessment of any and all contacts or exposure that White American participants have had with Asian people and cultures. It is important to note that the label "Asians/Asian Americans" encompasses more than 25 different ethnic groups. As indicated earlier, the majority of "Asian Americans," as counted by the U.S. Census, is first-generation immigrants. In addition, "Asian American" individuals have diverse preferences for ethnic self-labels (e.g., "Asian," "Asian American," "American," or their own specific ethnic group label, such as "Chinese" or "Chinese American").

Method

Participants

The sample included 315 White American college students (63% male and 37% female) from a mostly commuter public university located within a mid-size city (population: 105,000) of Massachusetts, that is 17% Asian American, four times higher than the national and state percentages, according to the 2000 U.S. Census. Furthermore, Massachusetts ranks 10th in the percentage of Asian American population among the 50 states. Ninety-five percent of the participants, at the time of this study, were living in various cities and towns of Massachusetts, while the remaining 5% were residents of neighboring states in New England (*note*: even though participants were not asked of their residency in university dormitories, some of them at the time of this study were perhaps living in dormitories and thus may have indicated the city where the university is located as their "current" residence.)

The mean age among participants was 20.23 ($SD = 3.37$), ranging from ages 18 to 46. The distribution of level of education for students' mothers was: 2% below high school, 27% high school graduate, 25% some college or vocational training, 31% college graduate, 2% some graduate school, and 13% graduate degree. For students' fathers, the distribution of level of education was: 6% below high school, 25% high school graduate, 28% some college or vocational training, 25% college graduate, 2% some graduate school, and 14% graduate degree. The mean

level of socioeconomic status (SES), as measured by parental household income, was approximately $70,000 with a distribution of 2% below $10,000, 2% $10,000–20,000, 5% $20,000–30,000, 6% $30,000–40,000, 12% $40,000–50,000, 12% $50,000–60,000, 12% $60,000–70,000, 12% $70,000–80,000, 9% $80,000–90,000, 11% $90,000–100,000, and 18% above $100,000.

Procedure

This study, after receiving institutional review board's approval, recruited students from general psychology courses. In small group sessions, students completed a 30-min anonymous survey and received course credits for their participation. The self-report survey was used to assess demographic information (e.g., age, gender, parental education, parental SES), personal characteristics (self-esteem and social competence), acculturative variables (extent of intercultural contact with Asians/Asian Americans and exposure to Asian cultures, and percentage of Asian population in city of current residence) and psychosocial variables (attitudes towards Asians/Asian Americans, awareness of discrimination and racial issues, and psychological distress—Brief Symptom Inventory).

Instruments

Self-esteem

The Rosenberg Self-Esteem Scale (RSES) (Rosenberg 1965) is a widely used 10-item scale that measures global feelings of self-worth and self-acceptance. The RSES responses use a 4-point Likert-type scale ranging from (1) "strongly agree" to (4) "strongly disagree." Higher scores on the RSES represent higher levels of self-esteem. Sample items include "I feel that I am a person of worth, at least on an equal basis with others" and "I feel that I do not have much to be proud of." Test–retest reliability after 1 or 2 weeks has been reported to be above .80. Cronbach's alpha was .89 for this study's sample.

Social Competence

The Social Competence Questionnaire (ComQ) (Sarason et al. 1985) is a 10-item scale that measures the extent of individual's comfort in various social situations. Responses to the ComQ items are based on a 4-point Likert-type scale ranging from (1) "not at all like me" to (4) "a great deal like me." Sample items include "I have trouble keeping a conversation going when I'm just getting to know someone" and "I feel confident of my social behavior." Cronbach's alpha was .83 for this study's sample.

Acculturation Assessment—Intercultural Contact with Asians/Asian Americans

The Exposure to Asians Scale (ETAS) was developed for this study to assess acculturation—the extent of contact with Asians and Asian Americans and exposure to aspects of Asian cultures. The development of this scale was guided by existing acculturation measures used in research with immigrant or ethnic minority samples that often include items that assess ethnic group affiliation and exposure to various aspects of host/majority culture (e.g., Acculturation Rating Scale for Mexican Americans (ARSMA) (Cuellar et al. 1980); The Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA) (Suinn et al. 1987). The ETAS is a 17-item measure with a 5-point scale, ranging from (1) "none" to (5) "almost all." Higher scores represent higher levels of contact with Asians/Asian Americans. Sample items include "During your college years, how many of your close friends are Asian/Asian American?," "Of all the people in your community or neighborhood, how many are Asian/Asian American?," and "How much of a specific Asian language do you speak or understand?" In this study, the Cronbach's alpha for the ETAS was .76.

Acculturation Assessment—Percentage of Asian Population in City of Current Residence

The public university where this study was conducted is attended by a largely commuting population. Over 160 nearby New England cities and towns (mostly in Massachusetts but also in neighboring states such as New Hampshire and Rhode Island) were represented by this sample. Therefore, on the basis of each participant's response to the following question, "Where do you currently live?" the 2000 Census data for U.S. cities (http://factfinder.census.gov) was used to ascertain the percentage of Asian American population for each participant's city of current residence. This variable represents a macro level of participants' contact with or exposure to Asians/Asian Americans.

Attitudes Towards Asians Scale (ATAS)

As no existing scale was available, the ATAS was developed for this study to assess participants' general attitudes towards Asians/Asian Americans. It is a 10-item measure with a 5-point scale, ranging from (1) "strongly disagree" to (5) "strongly agree." Higher scores represent more positive attitudes towards Asians/Asian Americans. Sample items include "I admire people who are Asian or Asian American," "I would date someone of Asian ethnicity,"

and "I don't consider Asian Americans as truly Americans." Cronbach's alpha was .82 for this study's sample.

Awareness of Institutional Discrimination and Blatant Racial Issues

The Color-Blind Racial Attitudes Scale (CoBRAS) (Neville et al. 2000) is a 20-item measure that assesses participants' perspectives on social issues relating to racial problems, discrimination, and privileges. It has a 6-point response scale ranging from (1) "Strongly disagree" to (6) "Strongly agree." Higher scores represent higher levels of awareness of discrimination and racial issues. Two subscales from the CoBRAS, Awareness of Institutional Discrimination (AID) and Awareness of Blatant Racial Issues (ABRI), were included in this study. Sample items include "Due to racial discrimination, programs such as affirmative action are necessary to help create equality" and "Racism may have been a problem in the past, but it is not an important problem today." In this study, Cronbach's alphas for AID and ABRI were .72 and .71, respectively.

Psychological Distress—Brief Symptom Inventory (BSI)

The BSI (Derogatis 1975) is a widely used self-report measure of symptomatic distress. Participants are asked how much each of a series of problems has caused distress in the past 7 days. The BSI is a 53-item measure with a 5-point scale, ranging from (1) "not at all" to (5) "extremely." Higher scores on the BSI represent higher levels of distress. Sample items include "Feeling lonely," "Trouble falling asleep," and "Nervousness or shakiness inside." In this study, the Global Severity Index Scale (GSI), based on the average score of 53 items, was used as an indicator of psychological distress or degree of adjustment. Cronbach's alpha for the BSI was .95 for this study's sample.

Results

The main purpose of this study was to examine the effects of intercultural contact with Asians and Asian Americans on psychosocial outcomes within a sample of White American college students, using multiple hierarchical regression analysis. Specific demographics (age, gender, parental education, and parental SES) and personal characteristics (self-esteem and social competence) were also included in the regression model. Prior to conducting the regression analysis, correlational analysis was used to examine separately the relationships among the independent and dependent variables.

Relationships among Independent and Dependent Variables

Independent Variables

In Table 1, there were several statistically significant relationships among the independent variables. Age was negatively associated with mother's education ($p < .05$) and SES ($p < .01$), indicating that older students reported lower levels of mother's education and parental SES. Gender was negatively related to the extent of contact with Asians/Asian Americans ($p < .01$), showing that female participants reported less intercultural contact with Asians/ Asian Americans than their male counterparts. Mother's education was positively associated with father's education ($p < .01$) and SES ($p < .01$). Self-esteem was positively correlated with social competence ($p < .01$) and percentage of Asian population in city of current residence ($p < .05$). Finally, the extent of contact with Asians/Asian Americans was significantly related to percentage of Asian population in city of current residence ($p < .01$), with those living in cities with higher percentages of Asian population having more intercultural contact with Asians/Asian Americans.

Dependent Variables

Table 2 summarizes the correlations among the dependent variables. Four of the six coefficients were statistically significant. Attitudes towards Asians/Asian Americans were positively associated with awareness of discrimination ($p < .01$) and racial issues ($p < .01$). Participants who reported more positive attitudes towards Asians/Asian Americans also reported more awareness of institutional discrimination and blatant racial issues. Awareness of institutional discrimination was positively related to

Table 2 Correlations among dependent variables

	1	2	3	4
1. Attitudes towards Asian Americans	–	.30**	.44**	−.09
2. Awareness of discrimination		–	.41**	−.12*
3. Awareness of blatant racial issues			–	−.10
4. Psychological distress—BSI GSI				–
Mean	3.17	3.51	4.41	1.77
SD	0.58	0.93	0.76	0.56

Note: $N = 315$

* $p < .05$; ** $p < .01$

awareness of blatant racial issues ($p < .01$) while negatively related to psychological distress—BSI Global Severity Index ($p < .05$).

Predicting Psychosocial Outcomes

Hierarchical multiple regression analyses were used to predict psychosocial outcomes. The model included an examination of (1) demographic characteristics in step one, (2) personal characteristics in step two, and (3) acculturative variables in step three. Table 3 shows the results for the prediction of attitudes towards Asians/Asian Americans, awareness of institutional discrimination, awareness of blatant racial issues, and psychological distress—BSI Global Severity Index.

Attitudes Towards Asians/Asian Americans

The contribution of demographic variables altogether was statistically non-significant although age was a significant correlate, with older students reporting more positive attitudes towards Asians/Asian Americans. The contribution of personal variables was also statistically non-significant.

Table 1 Correlations among independent variables

	1	2	3	4	5	6	7	8	9
1. Age	–	.04	−.12*	−.05	−.19**	.05	.05	−.07	.03
2. Gender		–	.07	−.10	−.05	.01	.03	−.23**	−.10
3. Mother's education			–	.37**	.31**	.02	−.04	.01	−.09
4. Father's education				–	.36**	−.04	.08	.04	−.06
5. SES					–	−.02	−.01	−.01	−.04
6. Self-esteem						–	.38**	.01	.12*
7. Social competence							–	.07	.02
8. Contact w/Asians								–	.19**
9. % of Asians in city of residence									–
Mean	20.23	1.37	3.43	3.32	7.39	3.16	2.92	1.81	5.20
SD	3.37	0.48	1.33	1.39	2.68	0.56	0.57	0.34	5.63

Note: $N = 315$. Gender (1 = male; 2 = female); SES = Socioeconomic Status

* $p < .05$; ** $p < .01$

Table 3 Predicting psychosocial variables from demographic, personal, and acculturative variables

Step/Variable	β	R^2_{change}	F_{change}
Attitudes towards Asians/Asian Americans (Adjusted R^2_{total} = .16, $F(9,305)$ = 7.54***)			
1. Demographic variables		.01	0.81
Age	.12*		
Gender	.10		
Mother's education	−.02		
Father's education	.04		
Socioeconomic status	−.03		
2. Personal variables		.00	0.52
Self-esteem	.08		
Social competence	−.05		
3. Acculturative variables		.17	30.72***
Intercultural contact w/Asians	.43***		
% of Asians in city of residence	−.04		
Awareness of institutional discrimination (Adjusted R^2_{total} = .13, $F(9,305)$ = 6.06***)			
1. Demographic variables		.11	7.95***
Age	−.14*		
Gender	.34***		
Mother's education	−.08		
Father's education	.04		
Socioeconomic status	−.09		
2. Personal variables		.01	2.11
Self-esteem	.13*		
Social competence	−.06		
3. Acculturative variables		.03	4.61*
Intercultural contact w/Asians	.17*		
% of Asians in city of residence	−.05		
Awareness of blatant racial issues (Adjusted R^2_{total} = .04, $F(9,305)$ = 2.21*)			
1. Demographic variables		.02	1.15
Age	.06		
Gender	.17**		
Mother's education	−.03		
Father's education	.03		
Socioeconomic status	.02		
2. Personal variables		.01	1.17
Self-esteem	.11		
Social competence	−.08		
3. Acculturative variables		.03	5.28**
Intercultural contact w/Asians	.18**		
% of Asians in city of residence	.03		
Psychological distress—BSI Global Severity Index (Adjusted R^2_{total} = .32, $F(9,305)$ = 17.20***)			
1. Demographic variables		.04	2.32*
Age	−.10*		
Gender	.14**		
Mother's education	.00		
Father's education	.00		
Socioeconomic status	−.10*		
2. Personal variables		.29	66.90***
Self-esteem	−.54***		
Social competence	−.02		
3. Acculturative variables		.01	1.83
Intercultural contact w/Asians	.07		
% of Asians in city of residence	.05		

Note: Gender (1 = male, 2 = female); BSI = Brief Symptom Inventory. R^2_{change} = the percentage of variance accounted for by variables when entered into the regression equation at that step; F_{change} = F value associated with R^2_{change} at that step; R^2_{total} = the total amount of variance predicted jointly by all of the independent variables entered into the regression equation

* $p < .05$; ** $p < .01$; *** $p < .001$

With regard to acculturative variables, particularly the extent of contact with Asians/Asian Americans, the contribution of these variables was statistically significantly. Students who reported more intercultural contact with Asians/Asian Americans also reported more positive attitudes towards this group. Overall, the independent variables contributed an adjusted 16% of the variance in the prediction of attitudes towards Asians/Asian Americans.

Awareness of Institutional Discrimination

Demographic variables, especially age and gender, were statistically significant in their contribution to the prediction of awareness of institutional discrimination. Younger students and female students indicated a greater awareness. The contribution of personal variables was statistically non-significant. After considering the effects of demographic and personal variables, the contribution of acculturative variables was statistically significant. The extent of intercultural contact with Asians/Asian Americans was positively associated with greater awareness of institutional discrimination. Overall, the independent variables contributed an adjusted 13% of the variance in the prediction model.

Awareness of Blatant Racial Issues

The contribution of demographic variables was statistically non-significant, even though gender was a significant correlate, with female students reporting more awareness of blatant racial issues. The contribution of personal variables was statistically non-significant. After considering the effects of demographic and personal variables, acculturative variables were statistically significant, but only the extent of intercultural contact with Asians/Asian Americans was a significant correlate of awareness of blatant racial issues. Overall, the independent variables contributed an adjusted 4% of the variance in the prediction model.

Psychological Distress—BSI Global Severity Index

The contribution of demographic variables was statistically significant, with younger students, female students, and those of lower SES reporting higher levels of distress. The contribution of personal variables was also statistically significant. Students who indicated a higher level of self-esteem reported a lower level of distress. After considering the effects of demographic and personal variables, the contribution of acculturative variables was statistically non-significant. Overall, the independent variables contributed an adjusted 32% of the variance in the prediction of psychological distress.

Discussion

The primary focus of this study was to examine the effects of acculturative variables in the prediction of psychosocial outcomes within a sample of White American college students. Key demographic variables (age, gender, parental education, and parental SES) and personal variables (self-esteem and social competence) were also included in the predictive models. Acculturative variables were the extent of intercultural contact with Asians/Asian Americans and percentage of Asian population in participant's city of current residence. Psychosocial outcomes included attitudes towards Asians/Asian Americans, awareness of institutional discrimination, awareness of blatant racial issues, and psychological distress. As a secondary focus, the interrelationships among the independent and dependent variables were examined separately.

The significant associations among demographic, personal, and acculturative variables show an interesting pattern but are consistent with previous research. Students who lived in cities with higher percentages of Asian population reported more intercultural contact with Asians/Asian Americans and exposure to Asian cultures. There is a low, but statistically significant, association between self-esteem and living in cities with higher percentages of Asian residents, and self-esteem is correlated with self ratings of social competence. Thus, one could speculate that prolonged exposure to minority group members and cultures may allow members of the majority group to experience more confidence in their ability to interact with members of other ethnic groups, which in turn may enhance their overall self-esteem. Further research is clearly needed to unravel this potential pattern because the results of this study are based on self-reported cross-sectional data. It is equally plausible that individuals with higher self-esteem are more open to social contact and interaction with members of other ethnic groups. Although determining the directionality of findings is of importance, the above results build on previous research regarding the racial attitudes of White Americans discussed earlier, which demonstrated a positive relationship between self-esteem and racial tolerance (Utsey et al. 2002).

Awareness of blatant racial issues was associated with awareness of institutional discrimination, possibly revealing that White American college students recognize a close link between these two aspects. In addition, White students who had more positive attitudes towards Asians/Asian Americans also were more aware of institutional discrimination and blatant racial issues. It is possible that students from the majority group who were aware of racial discrimination as a major problem in U.S. society were therefore more tolerant and appreciative of Asians/Asian Americans and members of other minority groups who

might be experiencing discrimination. Of course, the opposite pattern of explanation—contact with Asians/Asian Americans may lead to more awareness of racial discrimination—is also equally possible as these results are based on cross-sectional data. The results also indicated that those with higher levels of awareness of discrimination reported lower levels of psychological distress. The correlation coefficient for this association is low, but statistically significant, suggesting that more research is needed to examine this potential link.

The results from the hierarchical multiple regression analyses partially support our main hypothesis, indicating that after accounting for the effects of demographic and personal variables, acculturative experiences of White American college students contribute significant variance to the prediction of attitudes towards Asians/Asian Americans and awareness of discrimination and blatant racial issues, but not in the prediction of psychological distress. Students who reported more contact with Asians/Asian Americans and Asian cultures also reported more positive attitudes towards Asians/Asian Americans and more awareness of discrimination and racism in U.S. society. While we cannot point to the directionality of these associations, they may suggest potential mutual influences between different cultural or ethnic groups who are in continuous contact with one another, supporting the central premise of acculturation theory. Immigrants are certainly impacted by their hosts but the same can be said about host individuals, although the dimensions of change and the process of change may differ across immigrants and hosts. For example, changes involved in language acquisition may be more salient in immigrants whereas changes in racial attitudes or multicultural flexibility and openness may be more salient in host individuals.

Our findings also provide further support for the main tenet of contact theory, suggesting that increased contact between members of the ingroup and outgroup can lead to more positive intergroup relations. Specifically, White American students in this study who reported more intercultural contact with Asians/Asian Americans also reported more positive attitudes towards this group. As discussed earlier, increased intercultural contact with Asians/Asian Americans was related to increased awareness of institutional discrimination and blatant racial issues. Thus, it is probable, although certainly not the only explanation that increased contact with members of minority groups can result in more meaningful interactions with minority individuals, which in turn can raise the awareness of majority members about issues of discrimination faced by minority members. The shared perception that discrimination does exist in U.S. society may serve as a starting point for developing additional common goals and objectives that can further strengthen existing inter-ethnic relationships

and mutual influences between ingroup and outgroup members.

Although acculturative variables were predictive of attitudes towards Asians/Asian Americans and awareness of discrimination and racial issues, it was not predictive of psychological distress, suggesting the absence of direct effects. Nonetheless, acculturative variables may still play a role in the complex associations among certain variables. In this study, acculturative variables were associated with awareness of discrimination, which in turn was associated with psychological distress. The absence of predictive effects between acculturative variables and psychological distress is also possibly due to the way intercultural contact was assessed in this study. We assessed for the extent of intercultural contact across different situations and settings, but not the *quality* of these intercultural contacts. A focus for future studies in this new area of acculturation research is to examine the quality of intercultural contacts and relationships between different ethnic groups and individuals, which may provide a better understanding of the impact of immigrants or minority members on hosts or majority members.

Our findings for certain demographic variables were partly consistent with previous research (Pope-Davis and Ottavi 1994). Older students in this study reported more positive attitudes towards Asians/Asian Americans than younger students. Yet younger students were found to have a greater awareness of institutional discrimination. It appears that the supposition provided by Pope-Davis and Ottavi (1994) regarding maturity level and low levels of racist attitudes as discussed earlier is only partially supported by our current findings. White females in the current study reported more awareness of institutional discrimination and blatant racial issues, which is consistent with previous research on racial attitudes of White Americans (Carter 1990; Pope-Davis and Ottavi 1994; Sears et al. 1997). This increased awareness of discrimination by White females may be related to the long history of discrimination that women in the United States have experienced themselves, and still continue to face today.

Limitations of the Present Study

There are some limitations in this study that should be taken into consideration when thinking about the generalizability of the results. First, the information gathered from students is based on self-reports, which may have biased the results. Second, the participant sample in this study is comprised solely of college students from one region of the United States. Although this is a common limitation in psychological research overall, it is important to note that mutual acculturative influences and the formation of racial attitudes and awareness in the U.S. are part of the

individual's developmental or change process that is impacted greatly by the larger societal beliefs within a particular geographic region. Therefore, similar future research studies of other population samples from the same or different geographic regions would provide a fuller understanding of the mutual acculturative processes. Third, we only included a global assessment of intercultural contact with Asians and Asian Americans, which does not provide information about the differential effects of contact with various Asian/Asian American groups. For example, it is possible that contact with U.S. citizens or permanent residents of Asian ethnicity may have different effects on White Americans than contact with Asian international students or tourists who are in the U.S. temporarily. Finally, because this study is cross-sectional, the results reported here do not fully capture the developmental or change dynamics of the acculturation process of White Americans, nor do they provide a causal understanding of the relationship between acculturative experiences and psychosocial outcomes.

Implications for Future Research

This study has produced some important information, but there is much that we do not know about the acculturative processes of hosts and/or majority members in their prolonged contact with immigrants or ethnic minority members. Findings from this study do suggest that individual changes can occur among White Americans as a result of continuous contact with Asians/Asian Americans, but certainly there are many other psychological, behavioral, and contextual dimensions that were not examined in our study. Future research should expand beyond the variables that were included in this study and also examine the unique and combined influences of other immigrant or ethnic minority groups on host and/or majority individuals and communities. Future research should also consider other approaches and methodologies, including qualitative methods, in the development of acculturation measures for host groups. The measure we developed to assess White Americans' acculturation was guided by acculturation measures used with immigrant and minority populations but this is only one of many approaches. In addition, future research should consider other relevant dimensions of host acculturation (e.g., length and quality of contact, situational and contextual factors involved during contact, characteristics of contact targets, etc.) in addition to those included in this study, and to examine the effects of the different dimensions separately as well as in combination. This would provide more in depth information about the acculturative experiences of host groups. Moreover, a longitudinal approach to studying mutual acculturative processes is most desirable as it would yield a developmental perspective and a more complex understanding of this very dynamic phenomenon.

The results from this study also have implications for the expansion of research on contact theory as it relates to mutual acculturative processes, with a specific focus on the "optimal conditions" developed by Allport almost 60 years ago. It is clear that the ingroup and outgroups in the U.S. do not experience equal social status, nor do the ingroup and outgroups always experience support from society overall to work together. Therefore, how should contact theory evolve to address this issue and under which conditions does intercultural-group contact hold positive results and under which conditions are there negative consequences? These questions also require further exploration.

Conclusion

This study shows that the life experiences of White Americans can be impacted by their intercultural contact with Asians/Asian Americans, supporting the theoretical notion of mutual acculturative influences between White and Asian groups. Contact with Asian/Asian American classmates, teachers, co-workers, neighbors, friends, and/or dating partners can lead to positive attitudes about Asian people and cultures and greater awareness of discrimination and racism in U.S. society. As the United States is a country of immigrants and of increasing diversity, more intercultural contact among different ethnic groups can facilitate a more positive context for inter-ethnic relationships, understanding, collaboration, and unity. This is a mutual win-win situation for individuals, communities, and society.

References

Ancheta, A. (1998). *Race, rights, and the Asian American experience*. New Brunswick, NJ: Rutgers University Press.

Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. B. Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 17–37). Washington, DC: American Psychological Association.

Berry, J. W. (2006). Mutual attitudes among immigrants and ethnocultural groups in Canada. *International Journal of Intercultural Relations, 30*(6), 719–734.

Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (2002). *Cross-cultural psychology: Research and applications* (2nd ed.). Cambridge, England: Cambridge University Press.

Birman, D., Trickett, E. J., & Vinokurov, A. (2002). Acculturation and adaptation of Soviet Jewish refugee adolescents: Predictors of adjustment across life domains. *American Journal of Community Psychology, 30*(5), 585–607.

Carter, R. T. (1990). The relationship between racism and racial identity among White Americans: An exploratory investigation. *Journal of Counseling & Development, 69*, 46–50.

Chavous, T. M. (2005). An intergroup contact-theory framework for evaluating racial climate on predominantly White college

campuses. *American Journal of Community Psychology, 36*(3–4), 239–257.

Cuellar, I., Harris, L., & Jasso, R. (1980). An acculturation scale for Mexican American normal and clinical populations. *Hispanic Journal of Behavioral Sciences, 2*, 199–217.

Derogatis, L. R. (1975). *Brief Symptom Inventory*. Baltimore, MD: Clinical Psychometric Research.

Hunter, L., & Elias, M. J. (1999). Interracial friendships, multicultural sensitivity, and social competence: How are they related? *Journal of Applied Developmental Psychology, 20*(4), 551–573.

Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology, 47*, 59–70.

Ng, J. C., Lee, S. S., & Pak, Y. K. (2007). Contesting the model minority and perpetual foreigner stereotypes: A critical review of literature on Asian Americans in education. *Review of Research in Education, 31*(1), 95–130.

Ong, P., Agbayani-Siewert, P., Espiritu, Y., Hum, T., Inglis, C., Lee, T., et al. (2000). *The state of Asian Pacific America: Transforming race relations*. Los Angeles, Asian American Studies Center: Leadership Education for Asian Pacifics and University of California.

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49*, 65–85.

Pettigrew, T. F., & Tropp, L. R. (2006). Interpersonal relations and group processes: A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*(5), 751–783.

Pope-Davis, D. B., & Ottavi, T. M. (1994). The relationship between racism and racial identity among White Americans: A replication and extension. *Journal of Counseling & Development, 72*, 293–297.

Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. (2006). World population prospects: The 2006 revision and world urbanization prospects. Retrieved July 11, 2007 from World Population Prospects: http://esa.un.org/unpp/p2k0data.asp.

Redfield, R., Linton, R., & Herskovits, M. J. (1936). Memorandum for the study of acculturation. *American Anthropologist, 38*, 149–152.

Reynolds, C. (2004). Far East moves West. *American Demographics*, October Issue. Retrieved July 11, 2007 from Find Articles: http://findarticles.com/p/articles/mi_m4021/is_8_26/ai_n6220886.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Sarason, B. R., Sarason, I. G., Hacker, T. A., & Basham, R. B. (1985). Concomitants of social support: Social skills, physical attractiveness, and gender. *Journal of Personality and Social Psychology, 49*(2), 469–480.

Sears, D. O., Van Laar, C., Carrillo, M., & Kosterman, M. (1997). Is it really racism? The origins of White Americans' opposition to race targeted policies. *The Public Opinion Quarterly, 61*(1), 16–53.

Suinn, R. M., Rikard-Figueroa, K., Lew, S., & Vigil, P. (1987). The Suinn-Lew Asian Self-Identity Acculturation Scale: An initial report. *Educational and Psychological Measurement, 47*, 401–407.

U.S. Census Bureau. (2000). *Profile of selected social characteristics: 2000*. Washington, DC: U.S. Department of Commerce, Economics and Statistics Administration.

U.S. Census Bureau. (2002). *The Asian population: 2000*. Washington, DC: U.S. Department of Commerce, Economics and Statistics Administration.

Utsey, S. O., McCarthy, E., Eubanks, R., & Adrian, G. (2002). White racism and suboptimal psychological functioning among White Americans: Implications for counseling and prejudice prevention. *Journal of Multicultural Counseling and Development, 30*(2), 81–95.

Wong, F., & Halgin, R. (2006). The 'model minority': Bane or blessing for Asian Americans? *Journal of Multicultural Counseling and Development, 34*(1), 38–49.

Yu, T. (2006). Challenging the politics of the 'model minority' stereotype: A case for educational equality. *Equity & Excellence in Education, 39*, 325–333.