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Effects of social comparison on stereotyping

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EFFECTS OF SOCIAL COMPARISON ON STEREOTYPING

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the requirements for the Degree

Master of Arts

by

Robert G. Taniguchi

August 2009

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SAN JOSE STATE UNIVERSITY

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EFFECTS OF SOCIAL COMPARISON ON STEREOTYPING

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ABSTRACT

EFFECTS OF SOCIAL COMPARISON ON STEREOTYPING

By Robert G. Taniguchi

This thesis examines the effects of a social comparison process on stereotyping Hispanics. Using a reading of an Asian-American success essay, the estimation of perceived opportunity for success in American society was studied. Similarly, the degree of stereotyping was examined. Finally, the estimation of perceived discrimination against Hispanics was looked at.

Research shows that estimates of opportunity were not changed by reading the Asian success essay. For stereotyping of Hispanics, Caucasians and Asians showed more negative stereotypes after reading the success essay. For perceived discrimination, Caucasians paradoxically had higher perceptions of discrimination after reading the success essay. There was no difference in perceptions of discrimination for Asians after reading the success essay. Again unexpectedly, Hispanics showed lower perceptions of discrimination after reading the Asian success essay.

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INTRODUCTION

California is a culturally diverse state of many different ethnicities and races. Non-Hispanic Whites are the largest subpopulation in California, making up 43.8%, compared to 66.9% in the US. The second biggest population, and increasing, is the Hispanic minority. Hispanics make up 35.2% of California's population, based on 2007 statistics ("Hispanic American Census Facts," 2007). The breakdown of the Hispanic population into specific ethnicities is approximately as follows: 64% of Hispanics are of Mexican origin, 10% are Puerto Rican, 3% are Cuban, Salvadoran, and Dominican, respectively, and the remainder are from some other Central American country, South American country, or of other Hispanic or Latino origin. In the U.S. population, Hispanics make up only 14% of the population. Similarly, Asians make up 12.2 % of California's population, compared to only 4.3% in the U.S.

In summary, Hispanics, especially Mexican-Americans, are the largest ethnic group in California, followed by Asian-Americans. Thus it is important to study these groups' perceptions of each other, an issue that has not received much attention in social psychology.

Past Research Issues On Perceptions of Hispanics

First research issue: White's view of Hispanics

Our first research issue is, how does the ethnic majority (non-Hispanic Whites) perceive Hispanics? Research that has examined the cultural stereotype of Hispanics by non-Hispanic Whites has shown that, in general, Whites tend to have a negative view of Hispanics, although not in all studies (Triandis, Lisansky, Setiadi, Chang, Marin, & Betancourt, 1982). Examples of negative traits include being lazy, cruel, superstitious (Guichard & Connolly, 1977), and uneducated (Niemann, Jennings, Rozelle, Baxter and Sullivan, 2001). It should be pointed out that in many of the negative stereotype studies, positive or neutral traits are also mentioned, as we will see in the section on "Labels." Examples of positive traits include family-oriented, hardworking (Marin, 1984), and faithful (Fairchild & Cozens, 1981). An example of a neutral trait is prideful (Marin, 1984), which may be construed positively as esteem, or negatively as arrogance.

Second research issue: Minorities' perceptions of Hispanics

Our second research issue is, how do ethnic minorities perceive Hispanics? Houvouras (2001) found that African-Americans expressed less prejudice against Hispanics and illegal immigrants than non-Hispanic Whites expressed, and were more likely to support bilingual education. A potential reason for this finding is

that, as members of a disadvantaged minority themselves, African-Americans may sympathize or empathize with other disadvantaged minorities such as Hispanics.

Guichard and Connolly (1977) used a cohort of African-American and White supervisors and found, for African-American supervisors, the most frequent terms used to describe Chicanos were cruel, artistic, lazy, and superstitious. For White supervisors, the terms used most often were industrious, intelligent, lazy, artistic, and cruel. Thus the evidence for stereotyping Hispanics in terms of adjectival descriptions tends toward the negative with very few positive traits identified.

Third research issue: Hispanics' self-perceptions

Our third research issue is, how do Hispanics perceive themselves? Jones (2001) found that Hispanics may believe in the stereotypes mentioned in the second research issue (e.g., lazy, pugnacious, and aggressive). For instance Peterson and Ramirez (1971) found that Hispanic and African-American children expressed greater differences between their "real" selves and their "ideal" selves than Anglo-Americans. Common characteristics found between the two groups were self-rejection, anger, guilt, and insecurity. Characteristics of Hispanics included self-rejection and suspiciousness. Characteristics of African-Americans were unsatisfied dependency needs, passivity, and isolationism.

These findings are based on a pair of inventories in which both contain a set of 45 descriptors. The first inventory was used by children to describe their “real” self, followed by the second, which was used to describe their “ideal” self.

Some of the test items indicated self-rejection, anger, feelings of guilt, and insecurity, due to discrimination. This could lead to a negative self-concept and lack of self-esteem. Shorey, Cowan, & Sullivan (2002) found that low perceived self-esteem and low perceived personal and interpersonal control in Hispanics led them to overestimate discrimination. In other words, an Hispanic who feels worthless and helpless is likely to see himself as being discriminated against more so than an Hispanic without these qualities. The limited research into Hispanics’ self-perceptions suggests that Hispanics may have a low perception of themselves.

Factors Affecting Perceptions of Hispanics

Social status as a determinant of stereotypes

Jones (2001) investigated the factors influencing beliefs about Mexican-Americans, including perceived differences in the social roles of Mexican-Americans as determinants of stereotypes. Jones found that social status (as determined by occupation and income) underlies ethnic stereotyping.

These roles may be contrasted with Asians, whose social roles we might speculate include engineer, manager, or businessperson, or Jewish people, whose social roles might include doctor or lawyer. The implication is that Mexican-

Americans might be perceived to have a lower social status than Asians or Jewish people, because their common social roles are less distinguished than those of persons of Asian or Jewish heritage.

Physical environment effects

The physical environment or context may also impact the evaluations and opinions of observers of others. It has been shown in a mock jury study that Anglo jurors attributed more guilt to Hispanic defendants than Caucasian defendants and expressed more dislike for Hispanic defendants. Also, they rated Hispanic defendants as being less intelligent (Lipton, 1983). The implication is that Hispanic defendants might be stereotyped negatively and considered guilty because of this negative evaluation.

Furthermore, seeing an Hispanic college student might not be considered stereotypical but be accepted, whereas seeing a crime scene with a Hispanic and a non-Hispanic White might prompt one to stereotype the Hispanic as the crime perpetrator (Niemann, et al., 2001). The latter observation, where the Hispanic is typecast in an undesirable role, perhaps may be because of a negative stereotype and is potentially discriminatory.

Opposition to bilingual education

There may be factors that could lead to opposition to bilingual education (English as a Second Language, ESL) that in turn emphasize stereotypes and reinforce discrimination. These factors have been determined to be demographic variables, prejudice, and negative attitudes towards immigration (Houvouras, 2001). For example, Hispanics living in a poor part of town might be stereotyped negatively and might reinforce the stereotype of the uneducated Hispanic. We might speculate that this would lead to an attitude that “Hispanics should get what they deserve.” Opposition to measures that might benefit Hispanics also might be promoted by opposition to illegal immigration.

Labels

The very term used to describe the Hispanic group may affect stereotypes. Marin (1984) reported that the term Chicano was strongly associated with the adjective *aggressive*, and Mexican-American with the adjective, *poor*. Similar to Fairchild and Cozens, he examined perceptions of Chicanos, Mexican-Americans, Puerto Ricans, Whites, and Asians by Anglo university students. Five traits that were associated with all three Hispanic groups were aggressive, poor, family-oriented, proud, and hardworking.

Fairchild and Cozens (1981), using an adjective check list method rather than the free response method of Marin, found that the term Chicano was more often

associated with the adjectives *ignorant and cruel*, while Mexican-American was associated with the term *faithful*, and Hispanic with *talkative and tradition-loving*. It was pointed out that the term Hispanic over-generalized the cohort and tended to diminish the Indian heritage of Mexican-Americans. As pointed out earlier, “Hispanic” is an umbrella term that includes Mexican-Americans.

Niemann et al. (2001) found that Hispanics were perceived as uneducated. Houvouras (2001) found attributions of laziness. Thus we have evidence that there is a primarily negative view of Hispanics by non-Hispanic Whites that may be partially driven by the stereotypes associated with a particular label.

Effect of Social Comparison on Stereotypes

Festinger's theory

In this research, however, I want to examine yet another factor that may influence a perceiver's beliefs about Hispanics, that is, beliefs about other ethnic groups. I am particularly interested in Festinger's theory of social comparison in which he proposed that inevitably we want to evaluate our opinions and abilities in comparison with others (Myers, 2002).

To do this, Festinger suggests that we compare ourselves to objective, direct, physical standards. When these standards are unavailable, we compare ourselves to

other individuals. Furthermore, the similarity corollary suggests that individuals compare themselves to similar others. It has been pointed out that if an individual compares himself to dissimilar others, all he would find out is that he was unique (Wood, 1989). For example, Festinger suggests that very little would be gained by the comparison of novice chess players with grand masters.

The upward drive corollary also suggests that in Western societies, we attempt to improve ourselves to a point slightly “better” than similar others. We sense a pressure to improve ourselves, as a B student in a class of B psychology students might strive for a B+ or A.

Festinger offered derivations of his theory with regard to the implications for interpersonal behavior. The need for social comparison leads to group affiliation: we need similar others by which to compare ourselves, e.g., a tennis ladder that has rankings of its members.

We also compare our group to other groups, in an effort to see if our social identities are bolstered by the “superior” position of our group relative to other groups on various, valued dimensions. In fact, the phenomena of ingroup bias (positive bias toward our own group) and outgroup discrimination (negative bias toward those in groups other than our own) are manifestations of social competition.

For example, Euro-Americans generally have high status, and also are perceived to have “higher” social roles than most minorities, who generally have low status and generally lower perceived social roles (Ho, Sanbonmatsu & Akimoto, 2002). In making a comparison of the two groups, minorities may be stereotyped unfavorably.

In other words, the comparative roles with which we perceive minority groups influences our global evaluation of that group. Because we may perceive Euro-Americans as having greater status than minority groups, we might negatively stereotype these ethnic minorities.

The group that is the basis for the social comparison also impacts the perception of other groups. For example, the relative success of Jewish-Americans compared to Hispanics can lead to stereotyping as above. In other words, Jewish-Americans are “doctors, lawyers, and businessmen,” whereas Hispanics are “gardeners, fast food workers, and domestics.” Thus the entity for the basis of social comparison is a high status group compared to the low status group, and therefore perceivers might negatively stereotype the lower status group.

Evidence for social comparison processes and perceptions of ethnic minorities

There is some evidence that bears on the processes that have just been discussed. Ho, et al. (2002), for example, conducted research to examine the effects of comparative status on social stereotypes. The general research issue was how observations of the status of certain persons affects the stereotyping of other persons.

Specifically, they looked at the effects of perceived success of certain groups and individuals on the stereotypes held about relatively disadvantaged minority groups. Importantly, they looked at how information about the positions and roles of one group affects the perceptions of the traits of other groups. They also looked at the role of opportunity beliefs and attributions for status in stereotyping.

The authors predicted that stereotypes of low status groups might be influenced by information about the success of certain individuals and groups. Their rationale was that if some groups have achieved high status positions, by contrast, a target, low status group might be evaluated less favorably.

For example, Ho et al. (2002), proposed that Asian Americans are a relatively successful minority. If social comparison exists, then perhaps reading about Asian American success might cause one to derogate a disadvantaged minority group such as Hispanics.

In their experiment, the authors had all participants read a neutral essay (Ecology of the African Rangeland), then divided them into two groups, one reading a second, neutral essay (Discovery of an Ancient Greek Dramatist), while the other group read an essay on Asian American success. They predicted that beliefs about the success of Asians might support the views of an equal opportunity and decrease estimations of discrimination that other minorities experience.

The perception that Asians are high status might contribute to less favorable estimations of the current roles and positions of other minorities that would promulgate negative stereotyping. They also examined how attributions for a group's status mediates the effects of comparative status and opportunity beliefs on stereotyping.

The general procedure of Ho et al., was a questionnaire used in a ruse. The Asian success essay was used to manipulate opinion. After reading the second essay, the participants, in a "separate" study, answered questions on a "social opinion survey." Embedded in the survey were statements whose answers were used to make up indices reflecting the dependent variables.

The four dependent variables were 1) opportunity and social mobility, 2) positions and status, 3) discrimination, and 4) stereotyping. An example of the first dependent variable would be statements such as "Hard work and effort guarantee success in the United States." The answers were on a 7 point Likert scale anchored

with “strongly disagree” on one pole and “strongly agree” on the other pole.

An example of the second dependent variable would be a statement such as “On average, Mexican-Americans tend to have worse jobs than other Americans.” An example of the third dependent variable would be a statement such as “Mexican-Americans encounter significant racial discrimination in the workplace.” Finally, the statement, “Mexican-Americans often lack the values that are needed for a stable family life and social advancement” illustrates an example of the fourth dependent variable.

The overall results of Ho et al. (2002), which were directly relevant to our study, were as follows: 1) those who read the Asian success essay estimated opportunity as significantly higher than those who read the neutral essay and 2) stereotypes of Mexican-Americans were significantly more negative for those who read the Asian success essay, versus the neutral essay.

Limitations of Ho et al. 's (2002) Study

We are interested in Ho et al.'s study because it measures similar items, but there is one specific limitation - the use of non-Hispanic White participants. The dearth of research on how minorities perceive each other and themselves suggests interesting questions, for example, do the findings of Ho et al. generalize to other ethnic group participants, particularly Asians and Mexican-Americans?

For example, how would Asians perceive Mexican-Americans after they have read an essay on their own group's success? Would they feel pride with their own success, proclaiming that there is an ample opportunity, without discrimination, for economic success in America? Or would they empathize with Mexican-Americans after reading the essay and realizing their own struggles, see that discrimination, lack of opportunity, and negative stereotyping still exist in 21st century America?

More interesting yet would be how Mexican-Americans perceive themselves after reading an Asian success essay. Would they reason, "We have not succeeded like Asians because opportunity is vanishing, and discrimination and negative stereotyping pervade American society." Or would they reason, "The dominant group in the United States feels that there is plenty of opportunity and little discrimination. We must defer to their opinions." These are provocative questions we hope to address in our study.

METHOD

The statistics used were based on the Statistical Package for the Social Sciences (SPSS) . The demographic characteristics of the study groups are summarized in Table 1.

Design

This was a 3 X 2 between-subjects factorial design. The first IV consisted of three levels of ethnicities (Caucasians, Asian-Americans, Hispanic-Americans), and could not be manipulated. The second IV consisted of two levels of essays (the experimental essay “Asian-Americans in the United States” and the neutral essay “Ecology of the African Rangeland”). There were three dependent variables (DV): 1) estimates of opportunity in the U.S., 2) perceptions of discrimination against Mexican-Americans, and 3) stereotypes toward Mexican-Americans.

Apparatus

Three sets of materials were used. First, a demographic questionnaire was used to gather basic information such as participants’ gender and age.

Second, two essays were used. The “Asian-Americans in the United States” essay highlighted the academic and economic achievement of Asian immigrants. However, the essay also mentioned challenges and struggles which the immigrants had to overcome on their way to achieving the American

dream. This essay was used to manipulate the emotions, and influence attitudes and beliefs of the participants in the experimental group.

The neutral essay on “Ecology of the African Rangeland” focused on the discovery of the Serengeti region, and the essay included information about the ecosystem of that environment. This essay was used in the control group, and it was used to maintain a neutral emotion in participants. This essay should not have influenced participants to change attitudes and beliefs. Both essays can be found in the Appendix.

Third, the Social Opinion Scale, which consisted of 67 questions, was used to measure the three DVs. For each question, participants made self-report ratings on a seven-point Likert scale in which 1 = strongly disagree and 7 = strongly agree. For the first DV, the statements were: “Hard work and effort guarantee success in the United States,” “The United States provides individuals with less economic opportunity and occupational choice than most other countries” (reverse coded), “In the United States, the opportunity exists for anyone to get ahead,” “People generally get what they deserve in the United States,” and “People who are economically well-off are smart and more capable than those who are not well off.” Scores on the five questions were summed to form the index. Higher values of this

index indicate increased estimates of opportunity. The reliability (Cronbach's alpha) for the "opportunity index" was .62.

The statements that measured the second DV, stereotypes towards Hispanic-Americans, were: "Mexican-Americans often lack the values that are needed for a stable family life and social advancement," "Many Mexican-Americans do not have the motivation or willpower that is necessary for economic success," and "Most Mexican-Americans have less inborn ability to learn than whites." The index was formed in the same way as the opportunity index. Higher values on this index indicate more negative stereotyping towards Mexican-Americans. The reliability (Cronbach's alpha) for the "stereotype index" was .71.

The statements that measured the third DV, perception of discrimination against Hispanic-Americans, were: "Mexican-Americans encounter significant racial discrimination in the workplace," and "Mexican-Americans tend to receive fewer educational opportunities than whites." The index was formed analogously to the opportunity index. Higher values on this index indicate perceptions of greater discrimination toward Mexican-Americans. The reliability (Cronbach's alpha) for the "discrimination index" was .46.

Procedure

Upon arrival, participants were given two consent forms, one copy for the researchers' records, and the other copy for the participant. Participants were then

notified that the purpose of the study was to determine their opinions on several issues and that their tasks would be to read an essay and to fill out a questionnaire.

Researchers then handed out a packet which contained the demographic questionnaire, the essay, and the Social Opinion Scale to each participant. After participants completed the demographic questionnaires, they were given three and one-half minutes to read their essays. Participants were then given 50 minutes to fill out the Social Opinion Scale. Upon completion of the questionnaire, researchers handed out debriefing forms to the participants, and thanked them.

RESULTS

Descriptive Statistics

The typical participant was female, a freshman, aged 18 to 20, and an Applied Science major. The father was high school educated, and the mother was college educated. For Asians and Hispanics, the mother was high school educated.

TABLE 1. Descriptive Statistics

		Frequency (per cent) (N = 106)			
		Entire sample	Caucasian	Asian	Hispanic
Gender					
	Male	30.1	37.5	28	23.5
	Female	69.9	62.5	72	76.5
Major					
	Social Sciences	27.8			
	Applied Sciences	47.2			
	Humanities	18.5			
	Undeclared	6.5			
Age					
	18-20years	82.3	82.5	84.6	79.4
	21-25	13.3	15.0	10.3	14.7
	26-30	3.5	2.5	2.6	5.9
	40-44	0.9	0	2.6	0
Education		Father	Mother		
	Grade school	6.3	5.4		
	Middle school	6.3	3.6		
	High school	46.0	45.0		
	College	40.5	46.4		
Class Standing		Entire sample			
	Freshman	66.4			
	Sophomore	14.2			

TABLE 1. Descriptive Statistics (continued)

	Frequency (per cent) (N=106)
Class Standing	Entire sample
Junior	12.4
Senior	7.1

Estimates of Opportunity

The mean sum of the scores for the answers to five statements identical to those used by Ho et al., were used as an “opportunity” index.

A 3 x 2 (three levels of the factor of participant ethnicity: Caucasian, Asian and Hispanic, and two levels of the factor of essay: Neutral and Asian success) between-subjects analysis of variance (ANOVA) was performed on the “opportunity index.” We predicted that the Caucasian and the Asian participants would estimate opportunity as increased after reading the Asian success essay, and that the Hispanic subgroup would estimate opportunity as less after reading the Asian success essay.

We thought the Caucasians and Asians were expected to appreciate America as a “land of opportunity” after reading about Asian success, thus estimating opportunity as greater. The Hispanic group might realize after reading the success essay that they as a group are unsuccessful, and they would make an external attribution for this, decreased opportunity.

A non-significant main effect for participant ethnicity was found, $F(2, 106) = 2.52, p < .08$.

Figure 1 shows the non-significant interaction of ethnicity and essay.

Fig. 1. Perceived Opportunity for Mexican-Americans

Stereotypes Towards Mexican-Americans

The mean of the scores for the answers to three questions were used to assess participants' beliefs about Mexican-Americans as a "stereotype index."

A 3 x 2 between-subjects analysis of variance (ANOVA) was performed on the "stereotype index." We predicted that Caucasians and Asians would have

increased negative stereotypes about Mexican-Americans after reading the Asian success essay. We also predicted that Hispanics would have less negative stereotypes about Mexican-Americans after reading the Asian success essay.

We thought the Caucasian and Asian groups, after reading about Asian success, would make an internal attribution for the apparent failure of Mexican Americans. On the other hand, Hispanics would make an external attribution for the group's failures, and/or negative stereotyping by Caucasians and Asians. As part of ingroup bias, they would believe that they are not, as a group, unsuccessful, leading to less negative stereotypes about themselves.

There was a significant main effect for participant ethnicity, $F(2, 107) = 5.61$, $p < .05$. The simple comparisons showed that Caucasians and Asians had more negative stereotypes about Mexican-Americans compared to Hispanics ($p < .03$ and $p < .001$). Caucasians and Asians did not differ. This main effect was qualified by a statistically significant two-way interaction between participant ethnicity and type

of essay, $F(2, 107) = 2.90, p < .05$, as shown in Figure 2:

Fig. 2. Negative Stereotyping of Mexican-Americans

The significant two-way interaction suggests that Caucasian participants reported similar beliefs about Mexican-Americans after reading the Asian success essay ($M = 2.98$) and the neutral essay ($M = 2.71$), $p = ns$. In contrast, Asian participants showed more negative stereotyping towards Mexican-Americans after reading the Asian success essay ($M = 3.63$) than after the neutral essay ($M = 2.71$), $p < .03$. Finally, Hispanic participants showed less negative stereotyping towards Mexican-Americans after reading the Asian success essay ($M = 2.21$) than after reading the neutral essay ($M = 2.46$), but this difference was NOT statistically significant.

Also, a simple effects analysis was conducted examining the effect of ethnicity

within each essay condition. This analysis yielded a significant main effect of ethnicity within the Asian success essay condition, $F(2,54) = 8.41, p < .001$. This finding suggests that for participants who read the Asian success essay, both Asians and Caucasians showed more negative stereotypes towards Mexican-Americans ($M = 3.63$ and $M = 2.98$, respectively) than Hispanics ($M = 2.21$), $p < .001$ and $p < .04$, respectively). Caucasians and Asians did not differ in their stereotypes towards Mexican-Americans ($M = 2.98, M = 3.63$), $p < .25$.

In sum, findings were consistent with our predictions for both Caucasians and Asians. They showed more negative stereotyping towards Mexican-Americans than Hispanics after reading the Asian success essay, which suggests that they compared Asian success favorably over Mexican-American success. However, Hispanics did not stereotype themselves less negatively after reading the essay on Asian success. Although there was a trend toward this, the effect did not reach statistical significance. Thus for Hispanics, the findings were not consistent with our predictions.

Perceptions of Discrimination Toward Mexican-Americans

The mean sum of scores for the answers to two statements were used as a “discrimination index.” Higher values on this index indicate perceptions of greater discrimination toward Mexican-Americans. The reliability (Cronbach’s alpha) for

the “discrimination index” was .46.

A 3 x 2 between-subjects analysis of variance (ANOVA) was performed on the “discrimination index.” We predicted that Caucasians and Asians would show perceptions of decreased discrimination toward Mexican-Americans, and that Hispanics would show perceptions of increased discrimination toward Mexican-Americans. This is because the Asian group was viewed as successful, therefore discrimination must not be very prevalent, as judged by Caucasians and Asians. Mexican-Americans would realize their group was disadvantaged, and would attribute this to decreased opportunity in the US.

There was a significant main effect for participant ethnicity, $F(2,107) = 12.42$, $p < .001$. This main effect showed that Hispanics and Asians perceived more discrimination towards Mexican-Americans than Caucasians ($p < .001$ for both). Asians and Hispanics did not differ in their perceptions of discrimination towards Mexican-Americans, $p = ns$.

This main effect, as with the stereotype index, was qualified by a statistically significant two-way interaction between participant ethnicity and type of essay, $F(2,107) = 4.19$, $p < .02$. A graph of the significant two-way interaction can be

seen in Figure 3.

**Fig. 3 Perceived Discrimination
against Mexican-Americans**

The significant two-way interaction suggests that Caucasian participants showed higher perceptions of discrimination towards Mexican-Americans after reading the Asian success essay ($M = 4.56$) than the neutral essay ($M = 3.93$), $F(1,38) = 4.04$, $p < .05$. For Asians, there was no difference in perceptions of discrimination towards Mexican-Americans after reading the Asian success essay ($M = 5.08$) or neutral essay ($M = 5.0$), $F < 1$. Hispanic participants showed lower perceptions of discrimination towards Mexican-Americans after reading

the Asian success essay ($M = 5.0$) than the neutral essay ($M = 5.66$), $F(1,32) = 3.73$, $p < .06$.

Simple effects analysis examining the effect of ethnicity within each essay type showed that for the neutral essay condition, there was a significant effect of participant ethnicity on perceptions of discrimination towards Mexican-Americans, $F(2,53) = 15.36$, $p < .0001$. This effect showed that Hispanics and Asians showed higher perceptions of discrimination towards Mexican-Americans ($M = 5.66$ and 5.08 , respectively) than Caucasians ($M = 3.93$), $p < .0001$ and $p < .001$ respectively. However, there was no difference between Hispanics ($M = 5.66$) and Asians ($M = 5.08$) in perceptions of discrimination towards Mexican-Americans, $p < .18$.

For the Asian success essay condition, there was no significant main effect of participant ethnicity on perceptions of discrimination towards Mexican-Americans in the Asian success essay condition, $F(2,54) = 1.21$, $p < .31$.

DISCUSSION

Brief Summary of Findings

Opportunity

Our predictions for estimates of opportunity were that Caucasians and Asians would view opportunity as greater after reading about Asian success. Mexican-

Americans would view opportunity as less, perhaps to explain their lack of success. A prediction supported by the study included the finding that Asians estimated opportunity as greater after reading the success essay, more so than Caucasians or Mexican-Americans.

There were a number of predictions that were not supported by the study. The prediction of greater estimates of opportunity by Caucasians after reading the Asian success essay was not supported. Perhaps Caucasians may buy into the Asian model minority paradigm, but this results in negative emotions and attitudes toward Asians because Asians pose a realistic threat to the progress and continued well-being of the Caucasian group (Maddux, Galinsky, Cuddy and Polifroni, 2008). Thus Caucasians might reason, yes, the Asians are successful, but that is not a good thing. There is not more opportunity to explain their success, rather such things as tenaciousness, etc.

Hispanics did not estimate opportunity as increased after reading the Asian success essay. They might have reasoned that they were different than Asian-Americans, and that for them the Asian success did not translate into increased opportunity.

Stereotyping

We predicted that Caucasians and Asians would stereotype more negatively

after reading about Asian success, and that Mexican-Americans would stereotype less negatively after reading the Asian success essay. In general, results suggested that Asians stereotyped Mexican-Americans more negatively after reading the Asian success essay. Asians may have reasoned, our success is due to positive qualities we have. The apparent lack of Mexican-American success must be due to lack of those positive qualities.

However, the prediction of more negative stereotyping by Caucasians upon reading the Asian success essay was not supported. Caucasians in our sample may have favorable attitudes towards Mexican-Americans, although perhaps less favorable than Asians (Locci & Carranza, 1990). Also, it has been found that over the period 1990-2000, the major factors of stereotyping, wealth, intelligence, and work ethic, in the perceptions of Caucasians, improved for Hispanics. (The factor of proneness to violence was the only factor which did not improve) (Weaver, 2005).

Second, our findings suggested that Hispanics stereotyped Mexican-Americans less negatively after reading the Asian success essay. This might be due to in-group bias, that Mexican-Americans would realize that their own group must have positive qualities.

Discrimination

We predicted that Caucasians and Asians would estimate discrimination to be less after reading the Asian success essay. This is because Asians have “made it” as a minority; therefore there must be less discrimination. We thought Mexican-Americans would estimate discrimination as having increased to explain their apparent lack of success.

The prediction of decreased estimates of discrimination against Mexican-Americans by Caucasians after reading the Asian success essay was not supported. Contrary to Ho et al.’s findings, Caucasians had perceptions of increased discrimination towards Mexican-Americans after reading the Asian success essay than after reading the neutral essay. This was opposite to our predictions. This may be due to the possibility of enlightened attitudes with regard to the usual plight of ethnic minorities in the United States. Asians showed no difference in perceptions of discrimination due to essay type, again different from our predictions of less discrimination. This finding may be due to a belief that discrimination did not play a role in Asian success. Hispanics believed there was less discrimination towards Mexican-Americans after reading the Asian success essay than after reading the neutral essay. It was a trend, but was opposite to our predictions.

A potential reason for the finding of less perceived discrimination on the part of Hispanics is that Hispanics perceive themselves as a successful minority. They might reason that this may be because there is less discrimination against them in society. Apropos of this possibility, Weaver (2005) comments that Hispanics have a consistently high self-image.

Weaver proposes that, regardless of how Hispanics are perceived in society (now increasingly favorably), they know how hard they work, and they know they have a strong work ethic.

An alternative or additional idea is that Hispanics may not believe that Asians are a “model minority.” Therefore there are no implications for Hispanics. An additional alternative reason may be that Hispanics do not connect economic or social success with the degree of discrimination against them in society. However, it must be pointed out that these reasons are speculative, as the literature is non-existent for this topic.

Implications

Theoretical implications are that Caucasians, at least in our sample, may be less prejudiced against Mexican-Americans than we may have been led to believe. Perhaps our group did not buy into the “land of opportunity” stereotype of American culture, since it estimated more discrimination against Mexican-Americans after reading the Asian success essay. The evolution of our society after

1964 may have led to the incorporation into our educational system of more realistic social comparisons.

Also, Hispanics, at least in our group, may show that they do not buy into the “disadvantaged minority” stereotype that one may have thought characterized that group. As mentioned previously (Weaver, 2005), Hispanics tend to have a robust self-image.

Limitations

One limitation of our study was the composition of the ethnic groups used. Hispanics are present as a number of subpopulations such as Cuban or Puerto Rican. However, we lumped all Hispanics into one group. Second, the average age of our cohort was 18-20 years. This group may have had greater exposure to the concepts of diversity than older groups. This could have lead to less prejudicial attitudes.

Future Research

Because some of our findings were not consistent with Ho et al., further replication may be indicated. The inclusion of other ethnic groups such as Native Americans and Jewish people might point to further avenues of research and provide further data on the phenomenon of social comparison.

Future research into the causes and conditions of the social comparison

processes might aid in the formation of more effective strategies for combatting prejudice. Ramasubramanian and Oliver (2007) conducted an experiment similar to Ho et al. and had similar results. The intervention was media news stories about Asian-Indians. After reading this material, there was increased hostility towards African-Americans. Thus stories that tout the accomplishments of one ethnic group might not be beneficial for the acceptance of other, also disadvantaged groups.

General Conclusions

There is merit to the hypotheses of Ho et al., as shown by the data in which predictions were met. The use of a success essay as the intervention triggering outcomes is one way to conduct the experiment. Reaction time studies to racially salient terms might be another approach, that could possibly have a greater effect size. We would hope that future research on these issues would be pursued.

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APPENDICES

APPENDIX A

Asian Americans in the United States

Considerable media attention has been given to the educational and economic attainments of Asian Americans. In recent years, a multitude of national periodicals ranging from *Time* and *Newsweek* to *Psychology Today* have touted “the Triumph of Asian Americans” and labeled Asian American students as “the new Whiz Kids.” This isn’t just media hype. An examination of statistics from a variety of sources confirms that, overall, Asian Americans are thriving in the United States.

By almost every standard, Asian Americans are excelling in our schools. Asian American students complete high school and finish college at higher rates than other students. Their grade point averages tend to be higher. Moreover, a disproportionately high number attend the country’s finest universities. For example, at the University of California at Berkeley, nearly a third of the current enrollment is Asian American.

Given their educational attainments, it is not surprising that Asian Americans are succeeding economically. The family incomes of Asian Americans greatly exceed the national average. A disproportionately high number of Asian

Americans are employed as professionals or managers. For example, according to 1990 U.S. Census figures, 15.1 percent of Chinese Americans work as managers and 20.7 percent work in some professional field. In addition, a large percentage of Asian Americans are business owners and entrepreneurs.

The picture is not entirely rosy for Asian Americans. For example, many Americans of Southeast Asian background, most notably Hmongs and Cambodians, are struggling economically. In addition, crime and gang involvement trouble some Asian American neighborhoods. Moreover, Asian Americans continue to encounter discrimination in the workplace as well as in our schools. Some social observers cite recent instances of violence against Asian Americans as part of a backlash from those who are resentful of Asian American success. And many of the nation's best universities have been accused of setting quotas restricting the number of Asian Americans on campus.

On the whole, though, Asian Americans are doing well. Through hard work and education, many Asian Americans are succeeding in establishing a place for themselves in the United States.

APPENDIX B

Ecology of the African Rangeland

It was 1913 and great stretches of Africa were still unknown to the white man when Stewart Edward White, an American hunter, set forth from Nairobi. Pushing south, he recorded: “We walked for miles (through) burnt out country...Then I saw the green trees of the river, walked 20 miles more and found myself in paradise.”

He had found Serengeti. In the years since White’s excursion under the high, noble arc of the cloudless African sky, Serengeti has come to symbolize paradise for many of us. The Maasai, who had grazed their cattle on the vast grassy plains for millennia had always thought: to them it was Siringitu – the place where the land moves on forever.

The Serengeti region encompasses the Serengeti National Park itself, the Ngoongoro Conservation Area, Maswa Game Reserve, the Lollondo, Grumeti, and Iforongo Controlled Areas and the Maasai Mara National Reserve in Kenya. Over 90,000 tourists visit the area each year.

Two World Heritage sites and two Biosphere Reserves have been established within the 30,000 square kilometer region. The Serengeti ecosystem is one of the oldest on earth. The essential features of climate, vegetation and fauna have barely

changed over the past million years. Early man himself made an appearance in Olduvai Gorge about two million years ago. Some patterns of life, death, adaptation and migration are as old as the hills themselves.

It is the migration for which Serengeti is perhaps most famous. Over a million wildebeest and about 200,000 zebras flow south from the northern hills to the southern plains for the short rains every October and November, and then swirl west and north after the rains in April, May and June. So strong is the ancient instinct to move that no drought, gorge or crocodile infested river can hold them back.