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Occupational stereotypes of Asian Americans

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OCCUPATIONAL STEREOTYPES OF ASIAN AMERICANS

A Thesis

Presented to

The Faculty of the Psychology Department

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Angie Wong

May 2004

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ABSTRACT

OCCUPATIONAL STEREOTYPES OF ASIAN AMERICANS

by Angie Wong

The majority of past research conducted on the topic of occupational stereotyping focused on Asian Americans in general with minimal research on the Asian American subgroups. Therefore it is important to examine if occupational stereotyping exists among Asian American subgroups, specifically Chinese Americans, Vietnamese Americans, and Asian Indian Americans. It is also important to determine whether there are gender differences in occupational stereotypes across these three subgroups. Multiple mixed factorial ANOVAs were used to study whether occupational stereotyping exists among the Asian American subgroups. It was hypothesized that Chinese, Vietnamese, and Asian Indian Americans, as well as women in the three groups, would be rated different in terms of perceived likelihood of success in certain occupations. Results show no indication of any difference in perceived likelihood of success for any subgroup or women. Implications for counselors and organizations are discussed.

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TABLE OF CONTENTS

	Page
Introduction	1
Origin and Maintenance of Stereotypes	5
Heilman’s Lack of Fit Model	7
Occupational Stereotyping of Asian Americans	9
Occupational Segregation	10
The Asian American Personality	11
Career Interests of Asian Americans	15
Current Study	17
Method ..	20
Pilot Study 1	20
Participants	21
Method	21
Results	21
Pilot Study 2	21
Participants	22
Method	22
Results	23
Main Study	24
Participants	24
Procedure	28

TABLE OF CONTENTS (continued)

Occupational Success	28
Ethnicity and Gender	28
Results	28
Exploratory Analysis	36
Discussion	39
Implications	41
Limitations and Future Research	41
Conclusion	42
References	44
Appendix A	49
Appendix B	50

LIST OF TABLES

Table	Page
1. Means and Standard Deviations for Each Occupational Dimension	1
2. Means and Standard Deviations for all Occupations by Dimensions	5
3. Perceived Success by Subgroup and Status Level	7
4. Perceived Success by Subgroup and Structure Level	9
5. Perceived Success by Subgroup and Interaction Level	10
6. Perceived Success by Sex and Status Level	11
7. Perceived Success by Sex and Structure Level	15
8. Perceived Success by Sex and Interaction Level	17

Introduction

Ashmore and Del Boca (1979) define a *stereotype* as a set of beliefs about the personal attributes of a group of people. According to Ashmore and Del Boca, personal attributes are not limited to personality traits, but also include feelings, physical appearances, and preferences. Thus, it is reasonably assumed that personal attributes might also include occupations. While occupations are subject to being stereotyped as with any other attributes, it is important to operationalize the term *occupational stereotype* for the purpose of this study. Hence, an occupational stereotype is defined as a judgment or perception about a particular occupation, as well as people who are employed in that occupation (Lipton, O'Connor, Terry, & Bellamy, 1990; Shinar, 1975).

Occupational stereotypes have been shown to influence the career development and career aspirations of individuals (Leong, 1985; Shinar, 1975; Sue & Kirk, 1972). For example, Asian Americans tend to concentrate on a limited range of occupational fields such as engineering and biophysical science and avoid other occupational fields such as social sciences, humanities, and arts (Chun, 1980). Likewise, women tend to concentrate in occupations such as nurse, secretary, or elementary school teacher (Shinar, 1975) and avoid occupations such as auto mechanic, physician, or electrician (Ruble et al., 1984; Yanico, 1980).

It is believed that members of certain groups might be discouraged from pursuing certain occupations because they are not perceived as stereotypical to members of these groups, but this in turn, might affect their career development and

occupational aspirations (Hoyt, 1989). That is, Asian Americans and women might choose stereotypical occupations over non-stereotypical occupations (i.e., Chinese women choosing careers as chemists rather than psychologists).

The purpose of the current study is to examine the existence of potential differences in occupational stereotypes of Asian American subgroups, specifically Chinese Americans, Asian Indian Americans, and Vietnamese Americans. It is of interest to examine the existence of occupational stereotypes among these three groups because research has paid little attention to smaller groups such as Vietnamese and Asian Indians. It is also of interest to examine Chinese Americans because they tend to occupy jobs that are both high and low in status, whereas Asian Indians tend to hold high status jobs, and Vietnamese tend to hold low status jobs (Kitano & Daniels, 2001).

Similarly, recent research found occupational stereotyping to affect women's occupational aspiration and career development (Shinar, 1975; Couch & Sigler, 2001). Gender stereotypes have been shown to place barriers on women's career choices (Heilman, 1983; Shinar, 1975). Women are still limiting themselves to occupations that are considered "appropriate" for their gender (Shinar, 1975; Garland & Smith, 1981). This also places a limitation to the career development of women. Therefore, it is necessary to include women in the study of occupational stereotyping. Furthermore, the study of gender occupational stereotyping typically does not specify ethnicity, thus, to the author's knowledge, there is no occupational stereotyping for

Asian American women. Finally, it is of interest to examine gender occupational stereotyping across the different Asian American ethnic subgroups.

Studies related to occupational stereotypes and the career developments of Asian Americans have their limitations. Many of the studies were conducted in the 1970s and 1980s, and therefore the findings are dated. Asian Americans in the 1970s and 1980s are very different from those in the 2000s in terms of education, culture, or advancement in occupations (Census Bureau 2000, 1980; Morishima, 1981). Therefore, more current studies are needed. Second, the scope of these earlier career development studies is narrow in that they compared the interests of Asian Americans with White samples (Leong & Leung, 1990), without differentiating Asian Americans into subgroups. Relatedly, there is no current research addressing within-group differences among Asian Americans in terms of occupational stereotyping (Leong & Hayes, 1990; Hsia, 1988; Brandon, 1991; Leong & Leung, 1994). The studies that do take subgroups into consideration only use the larger subgroups of Asian Americans such as Chinese, Japanese, or Koreans, typically ignoring smaller subgroups such as Vietnamese, Hmong, and Asian Indians (Leong & Leung, 1994).

Unfortunately, much of the research conducted on Asian Americans' careers have used the combined group of Asian Pacific Islanders that include Eastern Asian groups such as Chinese, Japanese, Koreans, and Filipinos, and then combined them with Pacific Islanders, who are from a totally different culture (Leong, 1998). This lack of differentiation among Asian American subgroups provides an oversimplistic view of Asian Americans' careers by recognizing them as one group rather than as

distinct groups (Fouad & Tang, 1997; Morishima, 1981; Chun, 1980). That is, generalizations about Asian Americans' career choices may or may not apply to specific subgroups. For example, Japanese men do not express greater interest in the physical sciences as compared to White men, whereas Chinese men do express greater interest in the physical sciences when compared to White men (Sue & Kirk, 1973). Furthermore, Hsia (1988) showed that although Asian Americans as a group constitutes 18.3% of the professional occupations as compared to Whites, Vietnamese Americans occupy only 8.8% of those occupations. It is evident that there is a distinction among Asian American subgroups in terms of their career choices.

It is of great importance to note that much of the studies on stereotypes have focused on the identification of personality traits, and it seldom includes occupations. In addition, much of the occupational studies have focused on gender stereotypes rather than ethnic stereotypes. The paucity of studies on racial stereotypes frequently compared Whites and African Americans (Dahl, Baker, & Harrison, 1981; Sue & Kitano, 1973). When they included Asians, it seldom differentiated them. Asian groups are in fact different in terms of culture, time of entry into the United States, and reception by the host society (Kitano & Daniels, 2001).

In the following sections will (1) review literature on the origin and maintenance of stereotypes, (2) examine occupational stereotypes of Asian Americans, (3) review the personality variables relevant to the career development of Asian Americans, and (4) explore the career interests of Asian Americans.

Origin and Maintenance of Stereotypes

Once regarded as the behavior of a person with a maladjusted personality, stereotyping is now regarded as a cognitive process (Allport, 1954). Theory and research on social cognition suggests that humans have a limited cognitive capacity; therefore they try to organize and simplify their environment. When individuals encounter another person, they often use one or few salient attributes (e.g., race, gender, age, physical appearance) to categorize this person into a social category. This categorization process leads to a number of consequences, one of which the activation of the stereotype associated with a given social category (Brewer & Kramer, 1985; Hamilton, Sherman, & Ruvolo, 1990).

Once a stereotype is activated, individuals are likely to use the stereotype associated with that social group to generate a set of beliefs about a person. For instance, when an individual categorizes a person as a member of the Hispanic ethnic group, the individual may generate a set of attributes associated with the stereotype of the group (i.e., lazy, dirty, unintelligent, and hold a low status job) and believe certain attributes to be possessed by the majority of Hispanics (i.e., laziness, dirty, unintelligence). Thus, stereotypes simplify the cognitive task and enable individuals to quickly come to an evaluation about another person or groups of people (Ruble, Cohen, & Ruble, 1984). Yet, such simple classification may result in a bias toward an individual or members of a social group.

Stereotypes are difficult to change. One such reason may be that information inconsistent with the stereotypes is usually ignored or excluded from consideration or

is interpreted in a way that is consistent with the stereotypes (Fadil & Moss, 1998; Morishima, 1981). Furthermore, ambiguous information is likely to be interpreted in ways that are consistent with the stereotypes. Thus, the content of the stereotype is often unchanged (Fiske & Taylor, 1991). Therefore, stereotypes associated with gender, race, and occupations are difficult to overcome and continue to exist in our society. One of the problems with stereotypes is that they often are overgeneralizations about groups of people and are “either inaccurate or do not apply to the individual group member in question” (Heilman, 1983, p. 271). Thus, stereotypes can lead to biases in judgments or evaluations, possibly causing disadvantages for individuals in certain groups (i.e., career choices of females and minorities).

It has well been documented that there are stereotypes associated with gender (Ruble, 1983; Ashmore & Del Boca, 1979; Suehner & Moore, 1975; Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968; Williams & Bennett, 1975; Spence & Helmreich, 1978). A description of the typical man is stereotyped to be independent, competitive, and ambitious, whereas women are stereotyped to be affectionate, appreciative, and sensitive (Lueptow, 1984; Hosoda & Stone, 2000).

Concurrent with the gender stereotypes of men and women, there exists the sex typing of jobs (Shinar, 1975; Couch & Sigler, 2001). Historically, there have been occupations that are considered stereotypically feminine such as librarians, nurse, secretary, or elementary school teachers (Shinar, 1975; Schlossberg & Goodman, 1972). Notice that these jobs are more associated with low power, prestige, or

authority in our society. In contrast, jobs that are associated with higher power, prestige, or authority in our society are deemed as male sex-typed (i.e., police officer, manager, lawyer) (Yanico, 1978; Paneck, Rush, & Greenawalt, 1977). Thus, it is clear that many jobs are categorized as predominately masculine or predominately feminine (Shinar, 1975; Paneck, Rush, & Greenawalt, 1977). These existing stereotypes may restrict women to a narrow range of traditional feminine occupations, resulting in occupational segregation for many women (Leong & Hayes, 1990).

Heilman's Lack of Fit Model. How might the stereotyping of occupations affect Asian American men and women's participation in the workforce or career choices? Heilman's (1983) lack of fit model, which was originally developed to explain gender bias in the workplace, might be used to explain the potential consequences of occupational stereotypes for individuals. According to Heilman, a perceiver makes inferences about attributes and characteristics of an individual based upon stereotypes (e.g., sex, race), and then evaluates the individual on the degree to which these attributes match the perceived requirements of a job. Potential bias may result when there is a poor fit between the perceived attributes of an individual and the perceived requirements of a job. The larger the incongruity between these two perceptions, the more failure is anticipated and the greater the resulting bias.

Thus, according to this model, if Asian Indians apply for jobs that are not stereotypical for this group (e.g., laborer), they might be expected not to succeed in the jobs or the expectation for success might be lower. In this case, their individual outstanding performance may not be recognized due to biased perceptions of their

work ability. Another example might be if a Chinese male is believed to be high on quantitative but low on verbal ability, he may not be expected to succeed at a job that requires a great deal of communication with others. There is a perceived lack of fit between the individual's attributes and the requirements of the job; thus an expectation of failure. However, if the job requires good math skills (i.e., computer scientist), then this Chinese man's attributes will make him a good fit for the job; thus success is expected. One might also think of the possibility that a Chinese man may have good interpersonal skills, but because of the other typical Chinese stereotypes about this person, people might perceive this Chinese man as unfit for the job at hand.

The consequences of this performance expectation is critical to the career choices and career advancement of Asian Americans because the skills and abilities perceived to be required for occupations such as manager or sales representative (i.e., good communication or persuasive skills) do not always correspond to the attributes believed to describe Asian Americans (i.e., submissive or verbally inhibited). Occupational choices are determined in part by the likelihood of success in certain occupations (Heilman, 1983). Asian Americans may then consider certain occupations restricted, and are resigned to a limited range of occupational choices (i.e., pharmacy, accounting, and small business, rather than psychology, law, or corporate management). Such self-restriction is detrimental to their career development (Wong, 1977; Lan, 1975). Thus, the perception of fit is important in determining the types of career or occupational interests of Asian Americans. Asian Americans may believe themselves to be incapable of succeeding in certain

occupations, hence limiting themselves to the traditional roles in which society deems as most appropriate for Asian Americans based on their perceived personality traits (Heilman, 1983; Chun, 1980; Sue & Kirk, 1972).

Occupational Stereotyping of Asian Americans

Similar to other minority groups, Asian Americans are often victims of occupational stereotyping. For example, Leong and Hayes (1990) conducted an empirical study on the occupational stereotypes of Asian Americans among Whites. Leong and Hayes's study was based on questionnaires which consisted of two parts, first a profile of an above average high school senior that differed on gender and race (White vs. Oriental). Respondents were asked to rate the hypothetical high school senior in terms of (a) qualification in seeking training in 16 occupations (e.g., accountant, secretary, lawyer, social worker, insurance salesperson, elementary school teacher, psychologist, engineer, computer scientist, artist, physician, mathematician, police officer, economist, librarian, and business manager); (b) the probability of success in these occupations; and (c) the likelihood of being accepted by his or her coworkers in these occupations.

Results showed in terms of race difference on the probability of success, overall, Orientals were viewed as being less likely to succeed in insurance sales but more likely to succeed in engineering, computer science, and mathematics as compared to Whites. In terms of the dimension of probability of success, both race and gender effects were significant, whereas the interaction was not. Gender differences were found such that women were perceived as more successful for the

secretary and school teacher job than were men, whereas men were perceived as more successful for the police officer and computer scientist job than were women. For the dimension of likely to be accepted, neither main effects nor interaction effects for sex and race were found that in terms of qualification to seek training, women were seen as less qualified to seek training in such jobs as engineers, economists, and police officers, but as more qualified to seek training in such jobs as secretaries. The limitation of this study is the authors' neglect to examine the occupational stereotypes associated with various Asian subgroups such as Vietnamese, Chinese, or Asian Indian.

Occupational Segregation. A pattern of occupational segregation among Asian Americans has been reported (Chun, 1980; Hsia, 1980; Sue & Kirk, 1972, 1973). Asian Americans are found to occupy those occupations that require less verbal skills and limited social interactions (i.e., chemist or engineer). They tend to avoid occupations such as psychology or law because those occupations require social interaction (Sue, 1975; Morishima, 1981). Thus, Asian Americans appear to be segregated into occupations in the technical and physical sciences (Sue & Kirk, 1972, 1973; Hsia, 1988) such as engineering, doctor, and chemist (Hsia, 1988). This coincides with the under-representation of Asian Americans in a number of occupations requiring interpersonal and persuasive skills, such as school teacher, lawyer, judge, and legislator (Sue, 1975; Dahl, Baker, & Harrison, 1981; Hsia, 1988).

The above findings, however, failed to take into account within-group differences among Asian Americans as evidenced by Hsia (1988), who examined the

occupational distribution of Asian American subgroups. Accordingly, Chinese Americans hold jobs from professional and managerial to service workers (Hsia, 1988; Kitano & Daniels, 1995). Vietnamese Americans are more likely to establish small local businesses and work as laborers (Hsia, 1988; Kitano & Daniels, 2001). Asian Indian Americans are likely to hold professional and managerial positions because of their highly transferable credentials from India (Hsia, 1988; Kitano & Daniels, 1995). These differences suggest that there are important variations among Asian American subgroups in their occupational choices. Such variations in occupations among different Asian American subgroups might indicate that there exist different occupational stereotypes for different Asian American subgroups.

The Asian American Personality

What are the personality attributes of various Asian American subgroups? Unfortunately, very little research has been addressed to this question. The two groups that have received the most attention are Chinese and Japanese Americans (Morishima, 1981). The information obtained from these researches is used to describe Asian Americans in general. Career development literature suggests that three personality variables are relevant to the vocational choices of Asian Americans: locus of control, social anxiety, and intolerance of ambiguity (Leong, 1985; Sue & Kirk, 1972, 1973). Locus of control refers to the extent to which people perceive outcomes as either internally controllable by their own efforts or actions or externally controlled by chance (Rotter, 1966; Myer, 1999; Spector, 1988). With regard to locus of control, studies show that Asian Americans tend to be less autonomous, more

dependent, and more obedient to authority than Whites (Meredith, 1966; Sue & Kirk, 1972, 1973). In a study using the 16 Personality Factor Questionnaire, Meredith (1966) found that Japanese American college students were more submissive, diffident, and externally oriented than were White students. In a related study, Sue and Kirk (1972) administered the Omnibus Personality Inventory to Chinese American students and found that they were significantly more conforming and socially introverted than were the White students. Sue and Kirk suggested that high levels of conformity might be due to the traditional Chinese cultural values of respect for authority and submergence of individuality. With regards to the dependent nature of Asian Americans, Leong (1991) administered the Assessment of Career Decision-Making Style Subscale (ACDM; Harren, 1978) to Asian American college students and found that they were more likely to use dependent decision-making styles (Chan, 1991) (i.e., relying on family opinion) to make career-related decisions than White students. For example, due to the Asian Americans' cultural emphasis on collectivism (Sue & Morishima, 1982), it is common that they would take their family members' needs and expectations into consideration when they make important decisions such as their career.

Social Anxiety is the second personality variable known to be associated with vocational choices of Asian Americans. Bourne (1975) found that Asian Americans are more emotionally withdrawn, socially isolated, and verbally inhibited. Various empirical studies have revealed that Asian Americans experience greater social anxiety. For example, Sue and Sue (1974) found that Asian Americans exhibit

greater social introversion than Whites using the Minnesota Multiphasic Personality Inventory. In another study, using the Omnibus Personality Inventory, Sue and Kirk (1972) found that Chinese American students, compared with White students, were significantly more inhibited, more impersonal in their interpersonal relations, and seemed less socially concerned about other people. The Chinese American students were also less at ease with themselves and others, and more apt to be uncomfortable and anxious at social settings or with interpersonal relations. In a related study, Sue and Kirk (1973) found a similar pattern of low social extraversion and high anxiety among the Chinese and Japanese American samples. Later, Connor (1975) provided further evidence in his study comparing Japanese Americans with Whites and found the former to exhibit greater need for deference, order, and abasement.

The relevance of Asian Americans' social anxiety to their career aspirations has been discussed by researchers. Sue (1975) observed that Asian Americans tend to withdraw from social contacts and responsibility, and argued that the tendency of Asian Americans to choose occupations in the physical sciences and technical trades, not occupations in the social sciences or other vocations, may be due to the social anxiety, discomfort, and inhibition experienced (Cambra, Klopf, & Oka, 1978). Asian Americans are often underrepresented in the social sciences and other vocations (e.g., lawyers, psychologists) that require verbal-persuasive skills and high levels of social interactions (Sue, 1975).

In a literature review on Asian American success, Chun (1980) asserted that the pattern of occupational segregation and avoidance of social sciences by Asian

Americans is shown at both the graduate and undergraduate levels and in private industries as well. Sue (1973) explained this occupational segregation in terms of Asian Americans' ethnic identity and cultural background, which emphasizes reserve and formality in interpersonal relations, restraint and inhibition of strong feelings, and obedience to authority. Hence, this pattern of occupational segregation has important consequences for Asian Americans not only in terms of their own culture, but also in terms of the occupational stereotype from other cultures that may develop, resulting in additional occupational barriers.

The third personality variable related to the vocational choices of Asian Americans is intolerance of ambiguity. Evidence of the relationship between intolerance of ambiguity and career development was suggested by studies in which Asian Americans were administered a series of standardized personality measures. For example, Sue and Kirk (1972) found that Chinese Americans' profiles on the Omnibus Personality Inventory indicated that they were less oriented to theoretical or abstract ideas and concepts and more oriented to immediate, practical applications than White students. They tended to evaluate ideas based on immediate practical applications with more structure. Regarding intellectual disposition and styles of perception, the Chinese Americans seemed to "dislike uncertainty, ambiguity, and novel-experimental situations, in favor of more straightforward ones" (Sue & Kirk, 1972, p. 475). It is suspected by researchers that the intolerance of ambiguity among Asian Americans may be related to their occupational segregation into highly technical and scientific fields (Chun, 1980; Sue & Frank, 1973; Sue & Kirk, 1972,

1973). Furthermore, understanding Asian Americans' intolerance of ambiguity or structure may be very crucial to understanding their career choices.

Career Interests of Asian Americans

There are not many studies of the career interests of Asian Americans (Leong & Leung, 1994; Leong & Serafica, 1995). Of the three published empirical articles, the first focused on Chinese Americans. Sue and Kirk's (1972) results indicate that Chinese American men, when compared with all other men clumped into one category, expressed more interest in the physical sciences, technical trades, and business occupations and less interest in social services and welfare, sales and business contacts, and verbal-linguistic occupations. Chinese American women were more oriented than were White women in domestic roles such as housewife, secretary, and elementary school teacher. Furthermore, Chinese American women exhibited greater interests in technical-applied fields, biological and physical sciences and less interest in social sciences and verbal-linguistic occupations compared to all other women which was all other ethnicities clumped into one category (Sue & Kirk, 1972).

These authors interpreted the vocational choice patterns among Chinese in terms of traditional Chinese values and personality traits common to this ethnic group. For example, Chinese American students' lower verbal and higher quantitative scores reflect cultural factors such as the bilingual nature of their background, the limited communication patterns, especially restraint of strong feelings, and the tendency to like the structured and logical approach to work. In

addition, many Asian American families have encouraged their children to choose occupations that give them the greatest economic and social mobility (Sue & Kirk, 1972). In terms of personality traits affecting occupational choices, the family emphasis on conformity and respect for authority makes Asian Americans less autonomous (Sue & Kirk, 1972).

In their second study, Sue and Kirk (1973) found a similar pattern of vocational choices among Chinese American and Japanese American men, except that the Japanese men did not express greater interest in physical sciences or lower interest in social sciences than did White men. In addition, Japanese women did not express greater interest than did White women in domestic fields but were quite similar to the Chinese American men in preferring scientific, technical, and business occupations. The author explained these differences between the two groups as differential rates of acculturation and assimilation to the Western culture, with the Japanese being more assimilated.

Using the same Chinese and Japanese American men discussed above, Sue and Frank (1973) investigated the relation between vocational choice and personality characteristics of Asian Americans. They found that the Asian American students had characteristics quite different from those of Whites. Asian Americans were most uncomfortable with those occupations that require forceful self-expression, interpersonal interaction, and verbal or written communication. They preferred occupations that are structured, logical, concrete, and impersonal.

Current Study

Provided that the arguments above are related to the study of Asian Americans' career choices, the current study is designed to examine occupational stereotypes between different Asian American subgroups (e.g., Chinese Americans, Vietnamese Americans, and Asian Indian Americans). It is important to study ethnic occupational stereotypes to keep our research current. By examining individual subgroup differences, it may provide more sound evidence for career counselors to take sub-ethnic differences into consideration when guiding students in their career decisions. Furthermore, the current research adds value to the study of the smaller subgroups (i.e., Vietnamese and Asian Indians) thereby not allowing these groups to go unnoticed by society.

People have a tendency to generalize about other individuals on the basis of their perceptions about the other individual. Additionally, people have the tendency to have expectations about the characteristics of another individual depending on their categorization of the other individual. People are in a sense stereotyping other individuals on the basis of their personality, occupation, or gender (Morishima, 1981). Taken together, consideration of the differences within the Asian American subgroups and women, the personality variables, career choices, existing stereotypes of Asian American occupations (Leong, 1985; Leong & Hayes, 1990, Sue & Kirk, 1972), the following hypotheses were tested:

Hypothesis 1: There is an interaction between race and job status dimension (level) in predicting the perceived likelihood of success for the target subgroups. More specifically, for Chinese Americans, the higher the status of a job, the higher the perceived likelihood of success; for Vietnamese, the lower the status of a job, the greater the perceived likelihood of success; and for Asian Indians, the higher the status of a job, the higher the perceived likelihood of success.

Hypothesis 2: There is an interaction between ethnicity and job structure dimension (level) in predicting the perceived likelihood of success for the target subgroups. More specifically, for Chinese Americans, the lower the structure of a job, the higher the perceived likelihood of success; for Vietnamese, the higher the structure of a job, the greater the perceived likelihood of success; and for Asian Indians, the lower the structure of a job, the higher the perceived likelihood of success.

Hypothesis 3: There is an interaction effect between ethnicity and the job interaction dimension (level) in predicting the perceived likelihood of success for the target subgroups. More specifically, for Chinese Americans, the lower the interaction of a job, the higher the perceived likelihood of success; for Vietnamese, the lower the interaction of a job, the greater the perceived likelihood of success; and for Asian Indians, the

higher the interaction of a job, the higher the perceived likelihood of success.

Based on our discussion about women's career choices and limitations, the following hypotheses were tested:

Hypothesis 4: There is an interaction effect between women of the three subgroups and the job status dimension (level) in predicting the perceived likelihood of success for women. More specifically, for Chinese American women, the higher the status of a job, the higher perceived likelihood of success; for Vietnamese American women, the lower the status of a job, the higher the perceived likelihood of success; and for Asian Indian Americans, the higher the status of a job, the greater perceived likelihood of success.

Hypothesis 5: There is an interaction effect between women of the three subgroups and the job structure dimension (level) in predicting the perceived likelihood of success for women. More specifically, for Chinese American women, the higher the structure of a job, the higher perceived likelihood of success; for Vietnamese American women, the lower the structure of a job, the higher the perceived likelihood of success; and for Asian Indian Americans, the higher the structure of a job, the greater perceived likelihood of success.

Hypothesis 6: It is hypothesized that there is an interaction effect between women of the three subgroups and the job interaction dimension (level) in predicting the perceived likelihood of success for women. More specifically, for Chinese American women, the higher the interaction of a job, the higher perceived likelihood of success; for Vietnamese American women, the lower the interaction of a job, the higher the perceived likelihood of success; and for Asian Indian Americans, the higher the interaction of a job, the greater perceived likelihood of success.

Exploratory Analysis: The interaction effect between gender and ethnicity was explored based on the limited research in this area.

Method

Pilot Study 1

The purpose of pilot study 1 is to gather occupations in which participants feel are most typically occupied by Chinese American, Vietnamese American, and Asian Indian American subgroups. The occupations gathered will be used to design a questionnaire for the main study.

Participants. A total of 74 (48 females and 26 males) college students from psychology classes at a large university in Northern California participated in the study.

Method. The experimenter explained to participants that she was interested in examining individuals' perceptions on occupations of various social groups and that they would be asked to fill out a questionnaire. Participants were then asked to read and sign a consent form. Thereafter, they were presented with the questionnaire with instructions to list the five most typical occupations they thought were occupied by the following ethnic and gender groups: Chinese American Male (CAM), Chinese American Female (CAF), Vietnamese American Male (VAM), Vietnamese American Female (VAF), Asian Indian American Male (AIM), Asian Indian American Female (AIF), White American Male (WAM), and White American Female (WAF). Upon the completion of the questionnaire, participants were provided with a written debriefing statement explaining the purpose of the study.

Results. All of the occupations listed by the participants were for each ethnic and gender group. Each group yielded a different number of typical occupations (CAM = 16, CAW = 18, VAM = 11, VAW = 15, AIM = 12, AIW = 12, WAM = 13, and WAW = 17). Occupations found from the pilot study are available in Appendix A. The researcher, then, combined all of the occupations from all ethnic and gender groups to form one non-redundant list of occupations. A total of 33 typical occupations were found for the four ethnic groups.

Pilot Study 2

The purpose of pilot study 2 is to gain information about the job dimensions or attributes: status, structure, and interaction of each occupation. Each occupation will be assigned a dimension level of low, medium, or high. This information will be incorporated into the main study to examine any differences in ratings of success.

Participants. A total of 44 (26 females, 15 males, and 3 unspecified) college students from a psychology class at the same institution participated in the second pilot study. Their ages ranged from 20 to 53 years ($M = 25$). The participants were mostly Caucasian (39%), followed by Asian (32%), Hispanic (14%), Black (.05%), and unspecified (.07%).

Method. The researcher introduced the study and read a set of instructions to the participants, after which they were asked to sign a statement of informed consent. Participants were then asked to rate the list of 40 occupations based on three dimensions: (a) status, (b) structure, and (c) interaction. Participants were asked to rate each job for each dimension in terms of three response categories; low, medium, or high. The definition of each dimension was provided to participants. *Status* was defined as the degree to which society ranks the prestige of an occupation. *Structure* was defined as the degree to which an occupation has set rules to follow. Lastly, *interaction* was defined as the degree to which an occupation requires verbal communication with others. After completing the questionnaire, participants were given a written debriefing statement about the purpose of the study.

Based on the occupations gathered from the first pilot study, an occupational attribute questionnaire was constructed. Seven occupations were deleted from the

first pilot study because either they were redundant or too vague (i.e., business person, car salesman, convenience store, gas station owner, home maker, housewife, and politician). Then, thirteen additional occupations were added from the Census Bureau (2000) data to reflect more diverse occupations. These added occupations include automobile mechanic, bank teller, cashier, dental hygienist, economist, farm worker, firefighter, insurance sales agent, legal assistant, librarian, social worker, and truck driver. Moreover, two different managerial jobs (i.e., human resources manager and marketing manager) were added to the list in place of the vague job title of “manager” from the first pilot study. Thus, the questionnaire contained 40 occupations and these occupations were measured in terms of three dimensions: (a) status, (b) structure, and (c) interaction.

Results. In order to determine the relative level of each job on the above-mentioned measured dimensions, the average response and standard deviation for each of the dimensions was computed for each occupation. Responses to each occupation were coded as “1” for low, “2” for medium, and “3” for high. Because the range of possible mean scores was 1 to 3, all occupations with a mean score between 1.00 and 1.49 were classified as low in any of the three dimensions; all occupations with a mean score between 1.50 and 2.49 were classified as medium in any of the three dimensions; and all occupations with a mean score between 2.50 and 3.00 were classified as high in any of the of the three dimensions. All the means for each low, medium, or high category were summed and then averaged to produce one mean score for each level.

The mean and standard deviation for the three dimensions for each occupation are presented in Tables 1 and 2. Manicurist ($M = 1.02$) has the lowest status, whereas physician ($M = 3.00$) had the highest status. For the structure dimension, barber ($M = 1.27$) had the lowest mean, whereas physician ($M = 2.93$) had the highest average. In terms of the interaction dimension, truck driver ($M = 1.11$) was perceived to have the lowest interaction, whereas elementary school teacher ($M = 2.95$) was rated to have the highest interaction.

As mentioned above, any mean score between 1 and 1.49 are classified as low in any of the three dimensions; mean scores between 1.50 and 2.49 were classified as medium; and mean scores between 2.50 and 3.00 were classified as high in any dimension. To create the low, medium, and high levels for the status dimension, the low status jobs were added and then divide by the number of jobs in that category. For example, manicurist, cashier, taxi driver, barber, waitperson, truck driver, farm worker, construction worker, secretary, and librarian mean scores were summed and then were divided by 10 because that was the total number of low status jobs. Thus, the score for each level was computed for each dimension in the same manner.

Main Study

Participants. A total of 342 (214 females, 123 males, and 6 unidentified) college students from various departments (e.g., psychology, sociology, business) at a large university in Northern California participated in the study. The sample was diverse in terms of its ethnic composition; 40% Asian/Pacific Islanders ($n = 132$), 32% White ($n = 105$), 19% Hispanic ($n = 64$), 3% African American ($n = 10$), and

Table 1. Means and Standard Deviations for Each Occupational Dimension

Occupation Dimension Level	Status		Structure		Interaction	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Low	1.20	0.38	1.34	0.60	1.29	0.53
Medium	2.01	0.59	2.13	0.70	2.08	0.69
High	2.78	0.36	2.70	0.54	2.74	0.51

Table 2. Means and Standard Deviations for all Occupations by Dimensions

Occupations	Status		Structure		Interaction	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Manicurist	1.02	0.15	1.41	0.62	2.36	0.75
Cashier	1.05	0.21	1.98	0.79	2.64	0.69
Taxi Driver	1.07	0.25	1.34	0.60	2.27	0.85
Barber	1.11	0.32	1.27	0.59	2.48	0.70
Truck Driver	1.14	0.41	1.55	0.76	1.11	0.32
Waitperson	1.14	0.41	1.77	0.71	2.80	0.51
Farm Worker	1.20	0.51	1.77	0.74	1.14	0.35
Construction Worker	1.36	0.49	2.23	0.80	1.48	0.59
Secretary	1.43	0.50	1.95	0.71	2.36	0.61
Librarian	1.45	0.59	2.34	0.75	2.50	0.66
Automobile Mechanic	1.59	0.66	2.43	0.66	1.59	0.62
Bank Teller	1.61	0.54	2.48	0.59	2.73	0.50
Insurance Sales Agent	1.61	0.54	1.82	0.62	2.57	0.70
Child Care Worker	1.68	0.60	2.14	0.73	2.64	0.69
Social Worker	1.84	0.61	2.16	0.68	2.86	0.41
Elementary School Teacher	1.89	0.72	2.39	0.65	2.95	0.21
Real Estate Agent	1.93	0.59	1.91	0.68	2.75	0.49
Legal Assistant	1.95	0.48	2.48	0.59	2.20	0.63
Dental Hygienist	2.11	0.65	2.43	0.55	2.32	0.71
Restaurant Owner	2.20	0.55	2.05	0.71	2.32	0.64
Registered Nurse	2.23	0.52	2.80	0.46	2.89	0.32
Accounting	2.30	0.55	2.64	0.57	1.55	0.66
Economist	2.39	0.54	2.23	0.74	1.66	0.64
Mathematician	2.41	0.73	2.45	0.79	1.32	0.64

table continued

Firefighter	2.43	0.59	2.55	0.63	1.91	0.74
Computer Programmer	2.55	0.55	2.50	0.70	1.25	0.61
Marketing Manager	2.61	0.49	2.02	0.63	2.70	0.63
Psychologist	2.61	0.49	2.27	0.66	2.89	0.39
College Professor	2.66	0.48	2.27	0.66	2.91	0.36
Police Chief	2.70	0.46	2.77	0.42	2.59	0.69
Mechanical Engineer	2.75	0.44	2.61	0.62	1.52	0.66
Scientist	2.82	0.45	2.70	0.55	1.45	0.70
Dentist	2.89	0.32	2.77	0.52	2.55	0.55
Company President	2.98	0.15	2.43	0.76	2.48	0.73
Lawyer	2.98	0.15	2.70	0.55	2.77	0.48
Physician	3.00	0.00	2.93	0.33	2.86	0.41

6.1% all others ($n = 20$). Eleven participants did not provide ethnic information. Their ages ranged from 18 to 50 ($M = 20.95$). Sixty-seven percent of the participants ($n = 224$) were working at the time of the study.

Procedure. At the beginning of each experimental session, an experimenter explained to participants that she was interested in examining their opinions about occupations. After this brief explanation, participants were asked to complete a consent form, and were provided with instructions for the questionnaire and a profile of a hypothetical college student. The profile included information about the ethnicity, gender, and academic achievement, and a history of employment of the hypothetical person. They were asked not to discuss the questionnaire amongst each other. Participants were also asked to spend minimal time on rating each occupation. After reading the profile of the hypothetical college student, participants were asked to rate a list of occupations in terms of how successful the target person would be. They were then instructed to complete a questionnaire on demographic information. After the questionnaires were completed, participants were provided with a written debriefing statement about the purpose of the study.

Occupational Success. An occupational success questionnaire was developed using 36 out of the 40 occupations found in the second pilot study. Four occupations were deleted from pilot study two for the occupational success questionnaire because the job titles of computer engineer, human resources manager, and file clerk were too similar to the other occupations already listed and the job title of cook was too vague. Participants were asked to rate the list of 36 occupations in terms of how successful a

hypothetical person would be on a 5-point Likert type scale where 1 = *Not Successful*, 2 = *Not Very Successful*, 3 = *Somewhat Successful*, 4 = *Successful*, 5 = *Very Successful*.

Ethnicity and Gender. Both the ethnicity (Chinese, Vietnamese, Asian-Indian, and White) and gender (male, female) of hypothetical college students were experimentally manipulated. Participants were randomly assigned to one of the eight experimental conditions that differed on ethnicity and gender, with all other information being identical.

Results. In order to test this study's hypotheses, a series two-factor mixed within-subject analysis of variance (ANOVA) was conducted with Subgroup (Chinese American, Vietnamese American, Asian Indian American) as the between-subjects factor and Dimension (Status, Structure, and Interaction) (Low, Medium, High) as the within-subjects factor and perceived success as the dependent variable. In these analyses, the main effect as well as the interaction effects were examined for Subgroup * Dimension (Status, Structure, and Interaction) to see if the perception of success was the same for the three subgroups.

Hypothesis 1 predicted that that there is an interaction between race and job status dimension (level) in predicting the perceived likelihood of success for the target subgroups. For status dimension, the overall analysis found a nonsignificant main effect for Subgroup, $F(2, 254) = .38$, (Table 3). The results suggest that there are no differences on perceived success in any level of status for all three subgroups. However, the main effect of Status was significant, $F(2, 508) = 175.05$, $p < .001$.

Table 3. Perceived Success by Subgroup and Status Level

Subgroup		Status Level			TOTAL
		Low	Medium	High	
Chinese American (N = 88)	M (SD)	3.01 (.86)	3.51 (.58)	3.76 (.72)	3.43 (.58)
Vietnamese American (N = 86)	M (SD)	2.81 (.73)	3.53 (.60)	3.79 (.73)	3.38 (.56)
Asian Indian American (N = 83)	M (SD)	2.90 (.79)	3.48 (.52)	3.69 (.62)	3.36 (.50)
Total	M (SD)	2.91 (.80)	3.51 (.56)	3.75 (.69)	3.39 (.55)

Source	SS	df	MS	F	
Subgroup	.69	2	.34	.38	
Error	227.64	254	.90		
Status	95.38	2	47.69	175.05	***
Subgroup * Status	1.64	4	.41	1.51	
Error	138.40	508	.27		
Total	463.75	92.75			

***p<.001

This indicates that research participants perceived the three levels of status differently, where the highest mean was ($M = 3.75$), followed by medium status ($M = 3.51$), and low status ($M = 2.91$). However, the Subgroup * Status interaction was not significant, $F(4, 508) = 1.51$. Therefore the hypothesis was not supported because there are no differences in perceived likelihood of success at any status level for Chinese, Vietnamese, and Asian Indians.

Hypothesis 2 predicted that there is an interaction between ethnicity and job structure dimension (level) in predicting the perceived likelihood of success for the target subgroups. For the Structure dimension, the overall analysis found a nonsignificant main effect for Subgroup, $F(2, 254) = 1.18$, (Table 4). Similar to the status dimension, participants did not show any difference in perceived likelihood of success for all three subgroups. However, the main effect of Structure was significant, $F(2, 508) = 323.39$, $p < .001$. The result suggests that participants perceive the three levels of structure differently where high structure was ($M = 3.64$), followed medium structure ($M = 3.40$), and low structure ($M = 2.43$). There was a nonsignificant interaction between Subgroup * Structure, $F(4, 508) = 1.56$. Therefore, according to this analysis, participants' perceptions of subgroups do not vary by level of structure, therefore the hypothesis was not supported.

Table 4. Perceived Success by Subgroup and Structure Level

Subgroup		Structure Level			TOTAL
		Low	Medium	High	
Chinese American (N = 88)	M (SD)	2.59 (1.11)	3.42 (.58)	3.67 (.69)	3.23 (.67)
Vietnamese American (N = 86)	M (SD)	2.42 (.97)	3.38 (.56)	3.68 (.70)	3.16 (.62)
Asian Indian American (N = 83)	M (SD)	2.27 (.79)	3.40 (.52)	3.57 (.62)	3.08 (.50)
Total	M (SD)	2.43 (1.03)	3.40 (.55)	3.64 (.67)	3.16 (.63)

Source	SS	df	MS	F	
Subgroup	2.77	2	1.39	1.18	
Error	297.54	254	1.17		
Structure	211.71	2	105.85	323.39	***
Subgroup * Structure	2.04	4	.51	1.56	
Error	166.28	508	.33		
Total	680.34	136.07			

***p<.001

Hypothesis 3 predicted that there is an interaction effect between ethnicity and the job interaction dimension (level) in predicting the perceived likelihood of success for the target subgroups. For the Interaction dimension, the overall analysis found a nonsignificant main effect for Subgroup, $F(2, 254) = .36$, (Table 5). Likewise, the interaction between Subgroup * Interaction dimension was not significant, $F(4, 508) = .70$. However, the main effect for interaction dimension was significant, $F(2, 508) = 130.70$, $p < .001$. The result suggests that participants perceive the three levels of interaction differently where high interaction was ($M = 3.64$), followed medium interaction ($M = 3.29$), and low interaction ($M = 3.18$). Therefore, according to this analysis, hypothesis 3 was not supported because participants perceived the likelihood of success to be similar for all three groups across all three levels of the interaction dimension.

Hypothesis 4 expected that there will be a difference in perceived likelihood of success between women in each subgroup for the status dimension. The results show a nonsignificant interaction for Sex * Status dimension, $F(4, 250) = 1.64$, (Table 6). Therefore, according to this analysis, the hypothesis was not supported because Chinese women, Vietnamese women, and Asian Indian women are perceived as equally successful at all levels of status dimension.

Table 5. Perceived Success by Subgroup and Interaction Level

Subgroup		Interaction Level			TOTAL
		Low	Medium	High	
Chinese American (N = 88)	M (SD)	3.24 (.74)	3.32 (.63)	3.62 (.56)	3.39 (.59)
Vietnamese American (N = 86)	M (SD)	3.15 (.68)	3.27 (.60)	3.61 (.59)	3.34 (.57)
Asian Indian American (N = 83)	M (SD)	3.17 (.60)	3.22 (.56)	3.59 (.51)	3.33 (.50)
Total	M (SD)	3.19 (.67)	3.27 (.59)	3.60 (.55)	3.35 (.56)

Source	SS	df	MS	F	
Subgroup	.67	2	.34	.36	
Error	236.26	254	.93		
Interaction	25.29	2	12.65	130.70	***
Subgroup * Interaction	.27	4	.07	.70	
Error	49.15	508	.10		
Total	311.64	62.33			

***p<.001

Table 6. Perceived Success by Sex and Status Level

Sex		Status Level			TOTAL
		Low	Medium	High	
Chinese American Female (N = 45)	M (SD)	3.04 (.94)	3.55 (.64)	3.75 (.79)	3.45 (.62)
Vietnamese American Female (N = 42)	M (SD)	2.80 (.76)	3.62 (.66)	3.88 (.77)	3.44 (.62)
Asian Indian American Female (N = 41)	M (SD)	2.92 (.76)	3.50 (.48)	3.71 (.57)	3.38 (.44)
Total	M (SD)	2.93 (.83)	3.56 (.60)	3.78 (.72)	3.42 (.57)

Source	SS	df	MS	F	
Sex	.35	2	.18	.18	
Error	121.71	125	.97		
Status	49.53	2	24.76	83.64	***
Sex * Status	1.94	4	.49	1.64	
Error	74.02	250	.30		
Total	247.55	49.40			

***p<.001

Hypothesis 5 expected that there will be a statistically significant difference in perceived likelihood of success between women in each subgroup for the structure dimension. The results show a nonsignificant interaction for Sex * Structure dimension, $F(4, 250) = 1.17$, see Table 7. Therefore, according to this analysis, the hypothesis was not supported because Chinese women, Vietnamese women, and Asian Indian women are perceived as equally successful at all levels of structure dimension.

Hypothesis 6 expected that there will be a statistically significant difference in perceived likelihood of success between women in each subgroup for the interaction dimension. The results show a nonsignificant interaction for Sex * Interaction dimension, $F(4, 250) = .66$, see Table 8. Therefore, according to this analysis, hypothesis 6 was not supported because Chinese women, Vietnamese women, and Asian Indian women are perceived as equally successful at all levels of interaction dimension.

Exploratory Analysis

The interaction effect between race and gender were explored for the status, structure, and interaction dimensions in this study. Results of the mixed factorial ANOVA showed that there was no main effect of gender, $F(1, 330) = .97$, or race $F(3, 330) = .75$, nor an interaction effect between the two variables, $F(3, 330) = .11$, for the status dimension.

Table 7. Perceived Success by Sex and Structure Level

Sex		Structure Level			TOTAL
		Low	Medium	High	
Chinese American Female (N = 45)	M (SD)	2.77 (1.17)	3.45 (.63)	3.67 (.75)	3.30 (.70)
Vietnamese American Female (N = 42)	M (SD)	2.57 (1.05)	3.43 (.62)	3.76 (.72)	3.25 (.67)
Asian Indian American Female (N = 41)	M (SD)	2.40 (1.02)	3.43 (.46)	3.56 (.57)	3.13 (.55)
Total	M (SD)	2.59 (1.09)	3.44 (.57)	3.67 (.68)	3.23 (.65)

Source	SS	df	MS	F	
Sex	1.82	2	.91	.72	
Error	157.80	125	1.26		
Structure	81.52	2	40.76	113.77	***
Sex * Structure	1.68	4	.42	1.17	
Error	89.56	250	.36		
Total	332.38	66.48			

***p<.001

Table 8. Perceived Success by Sex and Interaction Level

Sex		Interaction Level			TOTAL
		Low	Medium	High	
Chinese American Female (N = 45)	M (SD)	3.18 (.76)	3.33 (.68)	3.68 (.62)	3.40 (.63)
Vietnamese American Female (N = 42)	M (SD)	3.10 (.73)	3.30 (.68)	3.74 (.61)	3.38 (.63)
Asian Indian American Female (N = 41)	M (SD)	3.06 (.60)	3.23 (.52)	3.66 (.43)	3.32 (.46)
Total	M (SD)	3.12 (.70)	3.29 (.63)	3.69 (.56)	3.37 (.58)

Source	SS	df	MS	F	
Sex	.47	2	.23	.23	
Error	127.86	125	1.02		
Interaction	22.52	2	11.26	114.44	***
Sex * Interaction	.24	4	.06	.66	
Error	24.59	250	.10		
Total	175.68	35.14			

***p<.001

Results of the mixed factorial ANOVA showed that there was no main effect of gender, $F(1, 330) = 3.70$, or race, $F(3, 330) = .115$, nor an interaction effect between the two variables, $F(3, 330) = .09$, for the structure dimension.

Results of the mixed factorial ANOVA showed that there was no main effect of gender, $F(1, 330) = .01$, or race $F(3, 330) = .48$, nor an interaction effect between the two variables, $F(3, 330) = .17$, for the interaction dimension. Therefore, an overall interpretation of the three mixed factorial ANOVA suggests that participants perceived the target groups, regardless of race and gender, to be equally successful in all the jobs.

Discussion

The major purpose of this study was to examine whether occupational stereotypes exist among Asian American subgroups (Chinese Americans, Vietnamese Americans, and Asian Indian Americans). It was expected that each of the three subgroups would be rated different in terms of perceived likelihood of success on 36 occupations (jobs). The 36 occupations were predetermined to have three levels (low, medium, high) according to status, structure, and interaction dimensions. An individual's perceived likelihood of success was measured using the occupational success questionnaire. The results of this study provided no evidence of occupational stereotyping of Asian American subgroups among some college students.

The results did not support hypothesis 1 through hypothesis 3, which stated that there is an interaction between race and job status, structure, and interaction

dimension (level) in predicting the perceived likelihood of success for the target subgroups. Participants rated Chinese, Vietnamese, and Asian Indians similarly in terms of perceived likelihood of success in any occupation across three job dimensions. There was no significant perceived likelihood of success differences found between subgroups. These findings suggest that college students do not recognize differences among Asian American subgroups. Perhaps college students feel that all Asian Americans are similar, as outlined by past research where results from one ethnic group (i.e., Japanese) would be generalized to all other Asians. On the other hand, college students may be sensitized to the fact that ethnic bias is not an acceptable attitude by the host society. The college students in this study may not want to be seen as biased toward any one subgroup, therefore rating all subgroups similarly.

The results did not support hypothesis 4 through hypothesis 6, which stated that there will be a statistically significant difference in perceived likelihood of success between women in each subgroup for the status dimension. The results suggest participants perceived the likelihood of success for Chinese, Vietnamese, and Asian Indian women equally in any occupation. The difference in perception of success for gender may be attributed to the social undesirability of gender stereotyping of people in general. College students are now more exposed to the different occupations that men and women can hold. Due to the limited support for the above hypotheses, subsequent analyses were conducted to find any interaction with White American women in the analyses. Only an interaction effect between Sex

of target group and Interaction dimension was significant when White American women were included in the analysis. This suggests that White American women are perceived to be different from the three Asian American women subgroup.

Results for the research question did not find an interaction between gender and race for any job dimension. The lack of interaction suggests that gender stereotyping by occupations may operate for all three subgroups.

Implications

This study has theoretical and practical implications. The present study adds to the paucity of research on occupational stereotypes of Asian Americans. The study also has major implications for school counselors. School counselors should be aware that students are different in their ethnic and gender make up and therefore counseling sessions should include education on the world of work, introducing the opportunity of interviews or work shadowing with professionals, guest speakers from different organizations. Counselors should be sensitive to students ethnic and gender background. Counselors should also clarify misconceptions about the likelihood of success in certain occupations. Organizations might focus on hiring ethnically diverse interns to help students learn what it takes to succeed in the work environment. Organizations can provide mentors to train students about diversity in the workplace.

Limitations and Future Research

There are a few limitations to this study. The sample used college students from a University that is diverse in demographics. The diversity of participants may

not represent the majority of Universities in this country. Therefore further research is needed using different college samples from different campuses before generalizing to all college students. Also, this study used college undergraduate students with who are new to the working world. Their perceptions of what it takes to succeed may be different from that of working professionals. Future research may examine whether there are differences in perceived likelihood of success among working professionals, career counselors, and Asian Americans themselves. Furthermore, the Asian American subgroup (Chinese, Vietnamese, and Asian Indian) may be too familiar to the general public. These groups may be perceived as similar because they are often used in movies to represent Asian groups. However, if future research examines other groups such as Hmongs, Cambodians, or Filipinos, there may be different perceptions of success.

Future research can clarify the relationship between the occupational patterns of Asian American groups and occupational stereotypes. The same relationship should be visited for gender groups. Another future research direction may be to examine the difference between foreign born Asian Americans versus domestic born Asian Americans. For example, what are their motivators for success? What are their barriers to success?

Conclusion

This study was conducted to examine any differences between Asian American subgroups in terms of perceived likelihood of success in certain occupations. Although the findings do not show any differences in terms of

perceived success for the occupations for all three subgroups, past research documented that there are group differences. For example, Sue and Kirk (1972) have shown Chinese American men expressed more interest in the physical sciences and business occupations and lower interest in social sciences than Whites, whereas Japanese men did not express greater interest in physical sciences or lower interest in social sciences than did White men. The results of this study provide support that career counselors should consider continuously educating students about various career opportunities. Although this study did not find any occupational stereotyping of Asian Americans subgroups, it is important to clarify any stereotypes if they do exist in schools.

References

- Allport, G.W. (1958). *The nature of prejudice*. Garden City, N.Y.: Doubleday and Co.
- Ashmore, R.D. & Del Boca, F.K. (1979). Sex stereotypes and implicit personality theory: toward a cognitive-social psychological conceptualization. *Sex Roles*, 5 (2), 219-248.
- Bourne, P. (1975). The Chinese student – acculturation and mental illness. *Psychiatry*, 38, 269-277.
- Brandon, P. R. (1991). Gender differences in young Asian Americans' educational attainments. *Sex Roles*, 25, 45-61.
- Brewer, M.B., & Kramer, R.M. (1985). The psychology of intergroup attitudes and behavior. *Annual Review of Psychology*, 36, 219-243.
- Broverman, I. K., Vogel, S. R., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28 (2), 59-79.
- Cambra, R.E., Kloft, D.W., & Oka, B.J. *Communication apprehension among university of Hawaii students*. Mimeographed paper. University of Hawaii, 1978.
- Chan, S. (1991). *Asian Americans: An interpretive history*. New York: Twayne.
- Chun, K. (1980, Winter-Spring). The myth of Asian American success and its educational ramifications. *IRCD Bulletin*, 15, 1-13.
- Connor, J. W., (1975). Value changes in third generation Japanese Americans. *Journal of Personality Assessment*, 39, 597-600.
- Couch, J.V. & Sigler, J.N. (2001). Gender perception of professional occupations. *Psychological Reports*, 88, 693-698.
- Dahl, P. R., Baker, O. V., & Harrison, L. R. (1981). Career stereotypes: What they are and how they can be addressed. *Journal of Career Education*, 7, 2-14.
- Fouad, N. A., & Tang, M. (1997). Caught in two worlds: Jessica Chang from a cross-cultural perspective. *Career Development Quarterly*, Dec, 46 (2), 155-160.

- Fadil, P.A., & Moss, S.E. (1998). An integrative framework of cognitive stereotypes in the bicultural leader/member dyad. *Research in International Business and International Relations*, 7, 83-115.
- Fiske, S.T., & Taylor, S.E. (1991). *Social Cognition*. NY: McGraw-Hill.
- Garland, H., & Smith, G. B. (1981). Occupational achievement motivation as a function of biological sex, sex-linked personality, and occupational stereotype. *Psychology of Women Quarterly*, 5, 568-585.
- Hamilton, D.L., Sherman, S.J., & Ruvulo, C.M. (1990). Stereotyped-based expectancies: Effects on information processing and social behavior. *Journal of Social Issues*, 46 (2), 35-60.
- Harren, V. A. (1978). *Assessment of career decision-making*. Carbondale: Southern Illinois University, Department of Psychology.
- Heilman, M. E. (1983). Sex bias in work settings: The lack of fit model. *Research in Organizational Behavior*, 5, 269-298.
- Hoyt, K.B. (1989). The career status of women and minority persons: A 20-year retrospective. *Career Development Quarterly*, 37, 202-212.
- Hsia, J. (1980, September). Cognitive assessment of Asian Americans. *Paper presented at the National Institute of Education – National Center for Bilingual Research Symposium on Bilingual Research at Alamos, CA.*
- Hsia, J., (1988). *Asian Americans at higher education and at work*. Hillsdale, New Jersey: Lawrence Erlbaum.
- Hosoda, M., & Stone, D.L. (2000). Current gender stereotypes and their evaluative content. *Perceptual and Motor Skills*, 90, 1283-1294.
- Kitano, H. H. L., & Daniels, R. (1995). *Asian Americans: Emerging minorities*. Englewood, New Jersey: Prentice Hall
- Kitano, H. H. L., & Daniels, R. (2001). *Asian Americans: Emerging minorities*. Upper Saddle River, New Jersey: Prentice Hall
- Lan, D. (1975). *Prestige with limitations: Realities of the Chinese American elite*. San Francisco: R & E Research Associates, 84, ED 138-654.
- Leong, F.T.L. (1985). Career development of Asian Americans. *Journal of College Student Personnel*, 26, 539-546.

- Leong, F.T.L. (1991). Career development attributes and occupational values of Asian American and white American college students. *Career Development quarterly*, 39, 221-230.
- Leong, F.T.L. (1998). Career development and vocational behaviors. In L. C. Lee & N. W. S. Zane (Eds.), *Handbook of Asian American Psychology*. Thousand Oaks, CA: Sage Publications.
- Leong, F. & Hayes, T. (1990). Occupational stereotyping of Asian Americans. *The Career Development Quarterly*, Dec, 39 (2), 143-154.
- Leong, F.T.L. & Leung, S.A. (1994). Career assessment with Asian Americans. *Journal of Career Assessment*, 2 (3), 539-546.
- Leong, F. T. L., & Serafica, F. C. (1995). Career development of Asian Americans: A research area in search of a good theory. In F.T.L. Leong (Eds.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 67-102). Hillsdale, New Jersey: Lawrence Erlbaum.
- Lipton, J.P., O'Conner, M., Terry, C., & Bellamy, E. (1990). Neutral job titles and occupational stereotypes: When legal and psychological realities conflict. *The Journal of Psychology*, 125 (2), 129-151.
- Lueptow, L.B. (1984) *Adolescent sex roles and social change*. New York: Columbia Univer. Press.
- Meredith, G. M. (1966). Amai and acculturation among Japanese American college students in Hawaii. *Journal of Social Psychology*, 70, 171-180.
- Morishima, J. (1981). Special employment issues for Asian Americans. *Public Personnel Management Journal*, 10 (4), 384-392.
- Myers, D. G. (1999). *Social Psychology* (6th Ed). New York: McGraw-Hill College.
- Rosenkranzt, P., Vogel, S.R., Bee, H., Broverman, I.K., & Broverman, D. M. (1968). Sex-role stereotypes and self concepts in college students. *Journal of Consulting and Clinical Psychology*, 32, 287-295.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, (Whole No. 609).
- Ruble, T.L. (1983). Sex stereotypes: Issues of change in the 1970s. *Sex Roles*, 9, 397-402.

- Ruble, T. L., Cohen, R., & Ruble, D. N. (1984). Sex stereotypes. *American Behavioral Scientist*, 27 (3), 339-356.
- Schlossberg, N. K., & Goodman, J. A. (1972). Women's place: Children's sex stereotyping of occupations. *Vocational Guidance Quarterly*, 20, 266-270.
- Shinar, E.H. (1975). Sexual stereotypes of occupations. *Journal of Vocational Behavior*, 7, 99-111.
- Spector, P. E. (1988). Development of the Work Locus of Control Scale. *Journal of Occupational Psychology*, 61, 335-340.
- Spence, J.T. & Helmreich, R.L. (1978). The personal attributes questionnaire: A measure of sex role stereotypes and masculinity-femininity. *JSAS Catalog of Selected Dialogue in Psychology*, 4, 43.
- Sue, D. W. (1973). Ethnic identity: The impact of two cultures on the psychological development of Asian in America. In Sue, S. & Wagner, N. (Eds.), *Asian Americans: Psychological perspectives* (pp. 140-149). Palo Alto, CA: Science and Behavior Books.
- Sue, D.W. (1975). Asian Americans: Social psychological factors affecting their lifestyles. In J.S. Picou & R.E. Campbell (Eds.), *Career behavior of special groups: Theory, research and practice* (pp. 97-121). Columbus, OH: Merrill.
- Sue, D. W., & Frank, A. C. (1973). A typological approach to the psychological study of Chinese and Japanese American college males. *Journal of Social Issues*, 29, 129-148.
- Sue, D. & Kirk, B. (1972). Psychological characteristics of Chinese American students. *Journal of Counseling Psychology*, 19 (6), 471-478.
- Sue, D.W. & Kirk, B. (1973). Differential characteristics of Japanese American and Chinese American college students. *Journal of Counseling Psychology*, 20 (2), 142-148.
- Sue, S. & Kitano, H.H.L. (1973). Stereotypes as a measure of success. *Journal of Social Issues*, 29 (2), 83-98.
- Sue, S., & Morishima, J. K. (1982). *The Mental Health of Asian Americans*. San Francisco: Jossey-bass.

- Sue, D. W., & Sue, S. (1974). MMPI comparisons between Asian Americans and non-Asian students utilizing a student health psychiatrist clinic. *Journal of Counseling Psychology*, 21, 423-427.
- Suehner, R. W. & Moore, D. M. (1975) Stereotypes of males and females in two occupations. *Journal of Vocational Behavior*, 6, 1-8.
- Williams, J.E. & Bennett, S.M. (1975). The definition of sex stereotypes via the Adjective Check List. *Sex Roles*, 1, 327-337.
- Wong, J. L. (1977). *Aspirations and frustrations of the Chinese youth in the San Francisco bay area: Aspersions upon the societal scheme*. San Francisco: R & E Research Associates, 137, ED 167-645.
- Yanico, B. J. (1989). Sex bias in career information: Effects of language on attitudes. *Journal of Vocational Behavior*, 6, 255-261.

Appendix A

Pilot Study 1 Job Titles

accountant	lawyer
businessperson	manager
car salesman	manicurist/nail
care giver/day care	mathematician
CEO	nurse
computer engineering	policeman
computer related	politician
construction related	professor
convenience store	psychologist
cook/chef	real estate
dentist	restaurant related
doctor	scientist
engineer	secretary
gas station owner	taxi driver
hairdresser	teacher
home maker	waitress
house wife	

Appendix B Questionnaire

David Cheng, a 20 years old Chinese male, is a college student with an interdisciplinary background and has an IQ of 115. In High School, he received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). He is described as a good student and is well liked by his professors. He is a hard working student and learns quickly. He currently works part time at the school library. David is motivated to choose a career in a field he finds interesting but he is not sure of how successful he will be in certain occupations.

So, as David's career counselor, your job is to decide how successful he will be in the following occupations. **Please rate each job in terms of how *successful* you think David will be if he has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

May Cheng , a 20 years old Chinese female, is a college student with an interdisciplinary background and has an IQ of 115. In Hish School, she received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). She is described as a good student and is well liked by her professors. She is a hard working student and learns quickly. She works part time at the school library. May is motivated to choose a career in a field she finds interesting but she is not sure of how successful she will be in certain occupations.

So, as May's career counselor, your job is to decide how successful she will be in the following occupations. **Please rate each job in terms of how *successful* you think May will be if she has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

Viet Nguyen, a 20 years old Vietnamese male, is a college student with an interdisciplinary background and has an IQ of 115. In High School, he received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). He is described as a good student and is well liked by his professors. He is a hard working student and learns quickly. He works part time at the school library. Viet is motivated to choose a career in a field he finds interesting but he is not sure of how successful he will be in certain occupations. So, as Viet's career counselor, your job is to decide how successful he will be in the following occupations. Please rate each job in terms of how successful you think Viet will be if he has the appropriate qualifications for each occupation.

So, as Viet's career counselor, your job is to decide how successful he will be in the following occupations. **Please rate each job in terms of how *successful* you think Viet will be if he has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

Anh Nguyen , a 20 years old Vietnamese female, is a college student with an interdisciplinary background and has an IQ of 115. In High School, she received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). She is described as a good student and is well liked by her professors. She is a hard working student and learns quickly. She works part time at the school library. Anh is motivated to choose a career in a field she finds interesting but she is not sure of how successful she will be in certain occupations. So, as Anh's career counselor, your job is to decide how successful she will be in the following occupations. Please rate each job in terms of how successful you think Anh will be if she has the appropriate qualifications for each occupation.

So, as Anh's career counselor, your job is to decide how successful she will be in the following occupations. **Please rate each job in terms of how *successful* you think Anh will be if she has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

Singh Rajput, a 20 years old Asian Indian male, is a college student with an interdisciplinary background and has an IQ of 115. In High School, he received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). He is described as a good student and is well liked by his professors. He is a hard working student and learns quickly. He works part time at the school library. Surjit is motivated to choose a career in a field he finds interesting but he is not sure of how successful he will be in certain occupations. So, as Surjit's career counselor, your job is to decide how successful he will be in the following occupations. Please rate each job in terms of how successful you think Surjit will be if he has the appropriate qualifications for each occupation.

So, as Singh's career counselor, your job is to decide how successful he will be in the following occupations. **Please rate each job in terms of how *successful* you think Singh will be if he has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

Snigdha Rajput , a 20 years old Asian Indian female, is a college student with an interdisciplinary background and has an IQ of 115. In High School, she received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). She is described as a good student and is well liked by her professors. She is a hard working student and learns quickly. She works part time at the school library. Snigdha is motivated to choose a career in a field she finds interesting but she is not sure of how successful she will be in certain occupations. So, as Snigdha's career counselor, your job is to decide how successful she will be in the following occupations. Please rate each job in terms of how successful you think Snigdha will be if she has the appropriate qualifications for each occupation.

So, as Snigdha's career counselor, your job is to decide how successful she will be in the following occupations. **Please rate each job in terms of how *successful* you think Snigdha will be if she has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

Mark Smith, a 20 years old White male, is a college student with an interdisciplinary background and has an IQ of 115. In High School, he received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). He is described as a good student and is well liked by his professors. He is a hard working student and learns quickly. He works part time at the school library. Mark is motivated to choose a career in a field he finds interesting but he is not sure of how successful he will be in certain occupations. So, as Mark's career counselor, your job is to decide how successful he will be in the following occupations. Please rate each job in terms of how successful you think Mark will be if he has the appropriate qualifications for each occupation.

So, as Mark's career counselor, your job is to decide how successful he will be in the following occupations. **Please rate each job in terms of how *successful* you think Mark will be if he has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

Questionnaire

Mary Smith a 20 years old White female, is a college student with an interdisciplinary background and has an IQ of 115. In High School, she received an SAT Verbal score of 580 (87th percentile) and an SAT Math score of 620 (89th percentile). She is described as a good student and is well liked by her professors. She is a hard working student and learns quickly. She works part time at the school library. Mary is motivated to choose a career in a field she finds interesting but she is not sure of how successful she will be in certain occupations. So, as Mary's career counselor, your job is to decide how successful she will be in the following occupations. Please rate each job in terms of how successful you think Mary will be if she has the appropriate qualifications for each occupation.

So, as Mary's career counselor, your job is to decide how successful she will be in the following occupations. **Please rate each job in terms of how *successful* you think Mary will be if she has the appropriate qualifications for each occupation. Using the scale below, circle the corresponding number for each occupation.**

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Librarian	1	2	3	4	5
Marketing Manager	1	2	3	4	5
Economist	1	2	3	4	5
Police Chief	1	2	3	4	5
Cashier	1	2	3	4	5
Waitperson	1	2	3	4	5
Mechanical Engineer	1	2	3	4	5
Truck Driver	1	2	3	4	5
Physician	1	2	3	4	5
Company President	1	2	3	4	5
Legal Assistant	1	2	3	4	5
Bank Teller	1	2	3	4	5
Social Worker	1	2	3	4	5
Lawyer	1	2	3	4	5
Secretary	1	2	3	4	5
Automobile Mechanic	1	2	3	4	5
Barber	1	2	3	4	5
Dental Hygienist	1	2	3	4	5
Child Care Worker	1	2	3	4	5
Insurance Sales Agent	1	2	3	4	5

Occupations	Very Successful	Successful	Somewhat Successful	Not very Successful	Not Successful
Accountant	1	2	3	4	5
Dentist	1	2	3	4	5
Registered Nurse	1	2	3	4	5
Elementary School Teacher	1	2	3	4	5
Psychologist	1	2	3	4	5
Computer Programmer	1	2	3	4	5
College Professor	1	2	3	4	5
Real Estate Agent	1	2	3	4	5
Firefighter	1	2	3	4	5
Mathematician	1	2	3	4	5
Farm Worker	1	2	3	4	5
Restaurant Owner	1	2	3	4	5
Construction Worker	1	2	3	4	5
Manicurist	1	2	3	4	5
Taxi Driver	1	2	3	4	5
Scientist	1	2	3	4	5

Please answer the following optional demographic questions.

Age: _____

Sex: M F

Ethnicity: White/Caucasian Asian/Pacific Islander Black
 Hispanic/Latino Native American Other _____

Degree Major: _____

Are you currently working? Yes No

How many years of work experience do you have? _____

What is your current job title? _____

Thank you!

San José State
UNIVERSITY

**Office of the Academic
Vice President**

**Academic Vice President
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To: Angie Wong
191 Kenbrook Circle
San Jose, CA 95111

From: Pam Stacks,
Interim AVP, Graduate Studies & Research

Date: November 1, 2003

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

“Occupational Stereotypes of Various Groups.”

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Pam Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subjects portion of your project is in effect for one year and data collection beyond November 1, 2004 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

cc: Dr. Megumi Hosoda