The Glass Ceiling for Asian Americans:
How Perceptions of Competence and Social Skills Explain Hiring Differentials

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Chapter 1: Introduction

1.1 Background

The 1965 Immigration Act gave people from Asian countries the same opportunity of immigrating to the U.S. as those from western European countries. Before that, Asian countries were on the list of “undesirables” and immigration from most Asian countries was largely banned (Cafferty, Chiswick, Greeley, & Sullivan, 1984; Chan, 1991). In response to the lack of skilled workers in technical fields, the 1965 Immigration Act put a special emphasis on attracting highly skilled foreign workers (Varma, 2002). The change in immigration policies led to a recent wave of technically skilled Asian immigrant workers. The Asian American population has increased from 3.7 million in 1980 to 7.2 million in 1990 (Aoki & Nakanishi, 2001), and reached about 11.9 million (4.2% of the U.S. population) in 2000 (U.S. Department of Commerce, 2002) to 14.9 million (5.0% of the U.S. population) on July 1, 2006 (U.S. Census Bureau, 2007). The rapid increase of the Asian population has begun to change the color of higher education and corporations in the U.S. (mainly in the sciences and engineering). It also has challenged the racial dynamics in the U.S. (Chan, 1991). Largely due to their high educational attainment (Hirschman & Wong, 1986; Hsia, 1988) and occupational achievement, Asian Americans are often considered as the “model minority” in the U.S. (Peterson, 1966; Min, 1995) and are perceived as intelligent, hardworking, diligent, modest, quiet, and non-confrontational.

This thesis examines the model minority stereotypes of Asian Americans, and explains how they may play a role in disguising the glass ceiling for Asian Americans. In

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1 In this thesis, we define Asian Americans as Asian immigrants from Asian countries (including Indian subcontinent) and their U.S. descend. And the terms “Asians” and “Asian Americans” are used interchangeably.
addition, this thesis will review the evidence of the glass ceiling for Asian Americans and tests empirically how the glass ceiling affects them, and, more importantly, explores the factors (e.g., perceptions of competence and social skills) that may explain differences in hiring whites and Asian Americans.

1.2 Model Minority Thesis and The Glass Ceiling for Asian Americans

1.2.1 Model Minority Thesis or Model Minority Myth

*Model Minority Thesis*

Peterson (1966) first coined the term “model minority” in describing Japanese-Americans who had risen in U.S. society despite opposition and discrimination in World War II. With media celebration (e.g., Brent, 1987) of a few exceptional success stories coupled with cultural value explanations of those successes, the model minority thesis was invented and soon flourished. Later, the model minority thesis was applied to all Asian Americans (Min, 1995). Despite its various versions, a typical model minority thesis goes like this: Asian Americans have low unemployment rates and high occupational achievement because they have a strong work ethic; Asian Americans have high educational attainment because Asian cultures place a strong emphasis on learning; Asian Americans have a low divorce rate and low delinquency rates because of a strong family value orientation (Woo, 2000, p.33).

The model minority thesis is partially supported by the fact that Asian Americans are the most highly educated of all groups (for example, in 2000, 44% of Asian males and 40% of Asian females over the age of 25 had completed a college education, compared with 28% of non-Hispanic white males and 26% of non-Hispanic white females) (Zeng & Xie, 2004). Furthermore, Asian Americans are overrepresented in the professional
workforce (for example, Asian Americans represented over 10% of scientists and engineers at the time when they made up only 4% of the total U.S. population) (Varma, 2002). From these statistics, it is easy to conclude that Asian Americans have successfully assimilated into the mainstream U.S. society and are able to realize the American dream with minimal outside assistance.

Is the Model Minority Thesis a Myth?

Unfortunately, the model minority thesis is largely false (Suzuki, 1989). First, the model minority thesis assumes unity of Asian cultures (Hurh & Kim, 1989). The diversity of Asian Americans is underestimated. Asian Americans originate from approximately 50 countries and groups in Asia and the Pacific Rim, each with a distinctive culture, history, tradition and belief systems (President’s Advisory Committee on Asian Americans and Pacific Islanders, 2001). Placing a unified cultural explanation to the over-representation of Asian Americans (which is as diverse as any group can be) in higher education and the professional workforce is inappropriate. Many Asian countries do not share similar values. In addition, although some Asian Americans (e.g., Chinese, Indians) have disproportionally high representation in sciences and engineering, other Asian Americans (e.g., Hmong, Khmer, Cambodians) are still struggling to achieve basic education (Barringer, Takeuchi, & Xenos, 1990). Therefore, it is difficult to come up with a unified cultural observation, let alone to use that to explain Asian American success stories.

Second, the “rags-to-riches” stories celebrated by the media and embraced by the supporters of the model minority thesis are exceptions, not norms (Domhoff, 1998). In response to the need for technically skilled workers, the 1965 Immigration Act attracted
very select groups of Asian immigrants to the U.S.. Those immigrants were either already educated or trained in their home countries or their families in their home counties were affluent enough to support their education abroad (Woo, 2000, pp.30-31). As a result, the relatively high educational attainment of Asian Americans might be better explained by the fact that many Asian Americans are from well-educated families or families placing high values on education. For example, the vast majority of Chinese Americans at the top of the American society (e.g., Chang-Lin Tien, former Chancellor of the University of California, Berkeley; Connie Chung, TV anchor) are from well-educated or influential families in China, Taiwan and Hong Kong (Zweigenhaft and Domhoff, 1998, pp.140-146).

Third, the statistical data that seem to support the model minority thesis are largely misrepresented or misinterpreted (Suzuki, 1989). Those statistics claim that in 1998 Asian Americans had the highest median household income in the U.S. (higher than non-Hispanic white households), but Asian American households tend to have more income earners than non-Hispanic white households, so the median individual income of Asian Americans is actually lower than that of non-Hispanic whites (President’s Advisory Committee on Asian Americans and Pacific Islanders, 2001). Furthermore, Asian Americans tend to hold professional jobs in lucrative fields (e.g., sciences and engineering) and live in the suburbs of metropolitan areas of high-income states. For example, in 2000, over half (51%) reside in the three states of California, New York and Hawaii (U.S. Department of Commerce, 2002). Relative to low-income states, the purchasing power of dollar is lower in the states in which Asian Americans tend to reside. In addition, as a diverse group, Asian Americans have a bimodal distribution of earnings,
education and other social status indicators (Cheng, 1997; Hune, 2002). According to the U.S. Census Bureau (2001, 2002), in 2000, 34.8% of Asian American families earned $75,000 or more compared with 26.6% of white families; however, 10.2% of Asian Americans were living below or at the Federal poverty level compared with 7.8% of white families.

Why is Model Minority Thesis so Popular?

The model minority thesis is largely based on speculation and stereotyping, and it lacks some basic empirical support. Therefore, a better term for it could be the model minority “myth”. But why is the model minority thesis so popular? It is because that the model minority thesis serves at least four purposes.

First, the model minority thesis reifies the American ideological canon that anyone can reach the American dream if he or she works hard enough. Second, it serves as propaganda to other minority groups (mainly African Americans and Hispanics) that Asian Americans have succeeded by being hardworking, self-sufficient and persistent, so they should be able to succeed also with minimal government support and intervention (Woo, 2000, p.36). This propaganda could intensify the racial tensions between Asian Americans and other minority groups, which, in turn, can lead to hate crimes against Asian Americans (U.S. Commission on Civil Rights, 1992; Chan, 1991). Third, the model minority thesis can also be used as evidence that racial discrimination is not severe enough to prevent minorities from upward mobility in American society (Chan, 1991), and therefore is not a major policy concern. Fourth, the model minority thesis can be viewed as a way of marginalizing Asian Americans, intended or unintended. It reinforces the “minority” status of Asian Americans by labeling them as the “model minority”,
which may effectively prevent them from being fully integrated into the mainstream American society (Okihiro, 1994).

The Role of the Model Minority Thesis in the Glass Ceiling for Asian Americans

Society accepts the model minority thesis because it confirms the media accounts of a few “rags-to-riches” stories of Asian Americans (e.g., *Time, New York Times Magazine, Fortune, Washington Post, NBC Nightly News*). The model minority arguments can easily convince the public that Asian Americans have risen to the highest levels in the American society and are no longer considered disadvantaged in terms of the group as a whole (Cheng, 1997). Therefore, the less informed may reasonably conclude that Asian Americans are not negatively affected by the glass ceiling.

The model minority “myth” could be quite detrimental to Asian Americans. First, it disguises how Asian Americans are negatively affected by the glass ceiling. A thorough review of the evidence of the glass ceilings for Asian Americans is provided in section 1.2.2. Second, the model minority “myth” implies that Asian Americans do not need societal support and government intervention in improving their social/economical status, because they have “made it”. In fact, the bimodal distribution of Asian Americans’ educational achievement, earnings and other measures of success leaves a large portion of them at the bottom of the society who desperately need assistance. Third, the model minority “myth” makes it difficult for Asian Americans to live up to the societal expectations of being the model minority. In addition, it may backfire if Asian Americans do not behave according to the expectations. For instance, Asian Americans who live below the Federal poverty line and apply for welfare assistance could be viewed
differently (and more negatively) from other applicants, because Asian Americans are expected to make it by themselves and they are not supposed to be the welfare recipients.

1.2.2 The Glass Ceiling for Asian Americans

The Glass Ceiling Defined

The U.S. Department of Labor (1991) has defined the “glass ceiling” as “those artificial barriers based on attitudinal or organizational bias that prevent qualified individuals from advancing upward in their organization into management level positions.” The artificial barriers can be unintended or implicit. In the context of Asian Americans, the glass ceiling refers to the phenomenon that Asian Americans are not entering the top ranks of management and administrative positions at a representative rate and have been disproportionately underrepresented in decision-making or policy-making roles. The glass ceiling does not imply that none of the qualified individuals could ever make to the top; it simply indicates that there are artificial barriers that impede the advancement of certain groups of qualified individuals based on race, gender, religion, country of origin, and others.

Evidence of the Glass Ceiling for Asian Americans

First, relative to whites, Asian Americans (both males and females) have a lower ratio of managers to professionals. Ong and Hee (1993) computed the percentages of workers in professional jobs and in executive and management positions, excluding the self-employed. They revealed that 23% of Asian American male workers take professional jobs while 14% of Asian American male workers are in executive and management positions; similarly, 17% of Asian American female workers are in professional workforce while 12% of Asian American female workers are managers. In
contrast, non-Hispanic white males show a reverse pattern with fewer in professional workforce (14%) and more in executive and management positions (17%). The high education attainment of Asian Americans allows them to obtain professional positions, but getting professional positions does not translate into the proportional representation of Asian American executives and managers. This pattern is repeated in higher education, government agencies and private corporations (Varma, 2004).

In higher education, relative to whites, Asian American faculty have lower promotion and tenure rates (percentages with tenure) (Hune & Chan, 1997, p.59; Nakanishi, 1993; Turner, Mayers & Creswell, 1999). In 1993, Asian American males had a tenure rate of 67%, much lower than the tenure rate of 78% for non-Hispanic white males; and the tenure rate of Asian American females (52%) was also lower than that of non-Hispanic white females (61%) (Carter and Wilson, 1997). In high ranking administrative positions, the situation is even worse. In 1996, not a single Asian American woman served as the president of any 4-year educational institution in the U.S., and Asian American men represented less than 1% of those positions; not surprisingly, white men take most of those positions (62%), followed by the distant second of white women (13%) (Carter & Wilson, 1997).

In government agencies, the same pattern of disparity emerges. Asian Americans tend to be professional employees but are seldom chosen as candidates for management positions (Naff, 2001, p. 89; Kim, 1994). In the Los Alamos National Lab, Asian Americans represent 4.5% of professionals, but only 1% of top managers (Lawler, 2000). In the Laurence Livermore National Lab, Asian Americans constitute 10% of professionals, but only 4% of managers or supervisors (Lawler, 2000). In the National
In the private sector, the same low ratio of managers to professional occurs. A 1990 study of Fortune 500 companies shows that Asian Americans occupy only 0.3% of top management positions (Korn/Ferry International, 1990). In contrast, white males take 97% of top management positions in Fortune 1000 companies in 1995 (“Study: Glass Ceiling Intact,” 1995, p. A1). Even if promoted to managerial positions, Asian Americans are far more likely to lead other Asian Americans, or sections of the companies with foreign operations, or in areas of the business that focus on research and development (Wong & Nagasawa, 1991); Asian Americans are far less likely than white males to be promoted in the areas of sales and marketing, which are traditional routes to the executive suite in a large number of industries (Leong, 1985, 1995).

Second, high educational accomplishment among Asian Americans does not necessarily translate into other measures of success (Cabezas & Kawaguchi, 1988; Hsia, 1988, pp.186-189,192; Cheng, 1997). If the return to education is measured by earnings, occupational status and promotion, Asian Americans have lower returns to education than their white counterparts (Hurh & Kim, 1989; Wong & Nagasawa, 1991; Zhou & Kamo, 1994; Friedman & Krackhardt, 1997). In a study of 12,200 white and Asian engineers between 1982 and 1986, Tang (1993) found that, relative to white engineers, Asian engineers earned less in comparable positions with comparable experience. The biggest earning difference existed between foreign-born Asians and native-born whites where the foreign-born Asians earned 18% less. However she did not find significant earning
difference between foreign-born whites and native-born whites. In terms of occupational status, she found that Asian American engineers were underrepresented in positions of authority and power compared to white engineers. This finding still holds even when comparing U.S. born Asian engineers with foreign born white engineers. Her findings suggest that neither language nor familiarity with U.S. managerial practices explain the disparity in occupational status between Asian Americans and whites (Tang, 1993, 1997, 2000).

In the case of Asian American women, low returns to education are also severe. Among all women of color, Asian American women are the group that is most likely to have graduate degrees and least likely to be among the top ranks in business (Catalyst, 1999). College education for Asian American women serves more as hedging against blue collar jobs (e.g., machine operatives, assembly workers) than as an opportunity for career advancement (Woo, 1985).

In conclusion, Asian Americans face barriers in reaching their full earning potential and career advancement in the higher education, government and private sectors. While many Asian Americans become professionals, disproportionately few make it to the top. Although the high educational attainment among Asian Americans opens the door for them to enter professional fields, they reach a plateau once getting in the door.

*Causes or Explanations of the Glass Ceiling for Asian Americans*

Researchers have proposed a lot of theories to explain the disparity between Asian Americans and whites, some arguing that the existence of artificial barriers and unfair treatment of Asian Americans are the major factors, others contending that certain
“deficiencies” of Asian Americans themselves (such as insufficient language skills, recency of arrival, or the lack of social skills) are responsible (Woo, 2000; Varma, 2002). In addition, there are noticeable overlaps in theories explaining the glass ceiling for women versus for Asian Americans, especially in the areas of structural barriers (i.e., the subjectivity of the evaluation system for promotion decisions, insufficient mentoring and the lack of access to critical informal social networks for women and Asian Americans) and personality traits (i.e., alleged lack of leadership qualities of women and Asian Americans).

Language and cultural barriers. Asians arrived in the U.S. well before the 19th century, but the most recent massive immigration from Asia occurred after 1965 (Takaki, 1989). It is reasonable to assume that insufficient English language skills and cultural barriers of those newly immigrated could impose additional difficulties for their upward mobility in American society. But it is intriguing that U.S. born Asian Americans with no language or cultural barriers still face difficulties breaking into the top ranks (Duleep & Sanders, 1992). Further, according to the Federal Glass Ceiling Commission (1995), white immigrants with language difficulties do not face the same career disadvantages as Asian Americans (regardless of nativity). This suggests a racial barrier rather than a language barrier in the upward mobility of Asian Americans.

A lack of managerial interest among Asian Americans. This explanation suggests that Asian Americans do not aspire to lead. However, managerial positions are typically associated with status and prestige in Asian cultures (Wong & Nagsawa, 1991) and the “rich and privileged” image of successful executives are especially admired by Asian Americans. It is possible that, relative to whites, Asian Americans tend to be quiet and do
not like to be in the center of social attention; but that does not mean they are not interested in being leaders. In fact, a study of Asian Americans in Silicon Valley shows that 75% of Asian Americans expressed their managerial interest; furthermore, 53% of respondents in the corporate sector and 44% in government agencies expressed concerns regarding inadequate promotion opportunities for Asian Americans (Asian Americans for Community Involvement, 1993).

Subjectivity of the evaluation system. The evaluation system for promotion decisions can be subjective or vaguely defined. Evaluators have great freedom to justify a promotion decision without running the risk of being viewed as unjust. “Corporate culture” is often used as a criterion for executive promotion and is also among the least well defined criteria. Even when they are well defined, those criteria tend to promote the “one-best-model”. For example, the stereotypical leadership style promoted as the “one-best-model” by organizations emphasizes command and control, which mirrors the typical characteristics of a white male manager. If a Chinese American male wants to break into the top management, the odds are not in his favor, because his leadership style is likely rooted in a collectivistic way of thinking and focuses on group work and interactive decision making via facilitating rather than dictating. His approach differs vastly from the “one-best-model” of command and control and may result in barriers to his advancement. Furthermore, even if the Chinese American male adopts the stereotypical white male leadership style, he potentially could be viewed as a violator of the prescriptive norms of being Asian (i.e., quiet, not vocal, not masculine). This norm violation may bring negative consequences to him (i.e., backlash).
The lack of proper mentoring and access to critical informal networks. This explanation argues that Asian Americans have not received the proper mentoring necessary for entering the executive suite. At the top of the organizations, the circles of friends and acquaintances tend to be divided along racial and gender lines (Woo, 2000, p. 19). The lack of proper mentoring from the top, the lack of access to critical information from the inner circles of decision-makers, and the lack of the positive “role models” for encouragement may all contribute to the stagnation of career advancement for Asian Americans (Prato, 1999; Varma, 2002; Friedman & Krackhardt, 1997).

Racial prejudice and perpetual foreigner syndrome. This line of thought claims that racial prejudice and discrimination is largely responsible for the stagnant mobility of Asian Americans in American society (Kim & Lewis, 1994). Not only do Asian immigrants encounter racial prejudice and discriminatory treatment, but so do U.S. born Asian Americans (U.S. Commission on Civil Rights, 1992; Goto, Gee, & Takeuchi, 2002). A study by Min and Kim (2000) shows that most 1.5 (those who came to the U.S. between ages 2 and 12) and second generation Asian Americans tried to hide their Asian heritage and non-white characteristics during their early school years in fear of being viewed and treated differently.

The “perpetual foreigner” syndrome (Tuan, 1999) describes the phenomenon that Asian Americans tend to be considered as foreigners regardless of their nativity. It is true that, in 1990, over 60% of Asian Americans were first-generation immigrants, while only 3% of whites were foreign-born (U.S. Census Bureau, 1993). But it is also true that there are almost 4 million U.S. born Asian Americans, some of them having ancestors residing in America well before the declaration of independence in 1776 (Espina, 1988). Being
viewed as foreigners certainly does not help build the mutual trust and support with the top management, because foreigners are viewed as different from the insiders, and human nature has the tendency of exhibiting in-group favoritism consciously or subconsciously. In addition, foreigners tend to be “scapegoats” in tough times (economic downturns or political turmoil), and an unwelcome source of competition when resources are scarce (i.e., Asians are taking all the high-pay jobs in the U.S. while American companies are outsourcing to Asia). In conclusion, the lack of trust and support triggered by the “perpetual foreigner” syndrome may hinder Asian Americans’ career advancement.

*Alleged deficiency of social skills and leadership qualities.* This line of thought is related to the subjective evaluation system; however, its special focus on personality traits and characteristics of the focal individuals makes it unique and worthy of being discussed separately. One of the common explanations of the rejection of Asian Americans is that Asian Americans do not possess the social skills and leadership qualities required by managerial positions (Leong, 1985). Research by Fiske and her colleagues (Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Xu, & Cuddy, 1999) shows that Asians are viewed as competent but not socially skilled (or lacking warmth attributes). They developed the Scale of Anti-Asian American Stereotypes (SAAAS) and find that the alleged lack of social skills, not excessive competence, leads to negative impressions of Asian Americans (Lin, Kwan, Cheung, & Fiske, 2005). Their studies are the first to provide a systematic framework that seeks to understand how Asians are perceived on two dimensions of evaluations: competence and social skills.

This thesis will take a step further by examining how Asian Americans and whites perceive *each other* on the dimensions of competence and social skills (Study 1 in
chapter 2) and how Asian Americans are perceived in the workplace in terms of technical and “people” skills (e.g., in a big law firm, Study 2 in chapter 3). Furthermore, this thesis will investigate how perceptions of competence and the lack of social skills might affect Asian Americans’ relative probability of getting certain types of technical vs. non-technical job upon college graduation (Study 3 in chapter 4). Unlike the technical jobs, the non-technical jobs have special emphasis on interpersonal communication skills (i.e., public relations, sales and marketing). Additionally, this thesis will examine Asians’ probability of being promoted to top managerial positions in a hypothetical law firm scenario, and how the perceptions about Asians might explain the promotion differential between Asians and whites (Study 4 in chapter 5 and Study 5 in chapter 6). This thesis also explores the role that evaluator’s gender might play in response to the importance of social skills and competence in given hiring/promoting scenarios.

1.3 Current State of Research on the Glass Ceilings for Asian Americans in Management

Thus far, research on the glass ceilings for Asian Americans has accomplished several important objectives. First, the literature has documented the glass ceiling phenomena for Asian Americans in various industries and sectors in the U.S. society (for review, see Woo, 2000), which leaves little doubt about the inequality between Asian Americans and whites in their career opportunities and upward mobility. Second, researchers have proposed various theoretical explanations for the causes of the inequality, as illustrated in the previous section. Third, researchers have started to conduct empirical tests of those theories. For example, Elvira and Zatzick (2002) tested
the relationship between race and layoff decisions, and Zeng and Xie (2004) investigated the effect of foreign vs. native education on earnings.

Despite the visible progress, there is still much research to do. First, a sizable proportion of the empirical tests conducted so far use census data (e.g., Zeng & Xie, 2004). The studies on census data provide a snapshot of the relationships between race and income in combination with other demographic measures (usually including nativity, language ability, education, geographic location and industry). Unfortunately, the limited variables in the census data do not allow testing of other important hypotheses, for instance, how Asian Americans’ earnings or career mobility might be affected by racial prejudice, stereotyping, biased evaluation systems, mentoring, and unequal access to critical informal social networks.

Second, besides studies using census data, other empirical studies tend to be field studies, where researchers utilize one or more field sites to study issues related to the glass ceiling and organizational practices (e.g., Cabezas, Tam, Lowe, Wong, & Turner, 1989; Tang, 1993; Eyring & Stead, 1998; Hurley & Giannantonio, 1999) or interview studies where researchers ask Asian Americans about their experience as minorities (e.g., Min & Kim, 2000; Dhingra, 2003). The studies consist of both qualitative interviews and quantitative survey data (e.g., Turner et al., 1999). The qualitative interviews are good sources of vivid depictions on how Asian Americans perceived they have been hindered by the glass ceiling, but there are still challenges in analyzing (or quantifying) those data to show the magnitude of the negative impact (Potter and Hepburn, 2005). In addition, the causes of those negative impacts are not always clear. The quantitative surveys are largely correlational studies in nature and specific to the context of the organizations.
surveyed (e.g., Chung-Herrera & Lankau, 2005). By and large, correlational field studies have good external validity, but the general inability to establish causal links among variables (e.g., being Asian leads to receive fewer promotions) may limit the inferences that can be made regarding the mechanisms leading to the glass ceiling.

Third, among the few experimental studies conducted so far, most of them are interested in what Asian Americans should do to perfect themselves via impression management (Xin, 2004) or self-presentation (Akimoto & Sanbonmatsu, 1999) to decrease the odds of being subject to unequal treatment. Few have focused on how the environmental factors or social constraints, which are largely out of individual’s control, might better explain the observed disparity between Asian Americans and whites.

In conclusion, the current status of research on the glass ceiling for Asian Americans in management is that there are numerous theories that are intended to explain the disparity in earnings, career mobility and promotion probability between Asian Americans and whites, but there is a shortage of empirical tests to validate these theories. In order to eliminate theories with not much explanatory power and develop those with good empirical support, more studies (especially experiments enabling the establishment of causal links) are needed.

The thesis will closely examine one of those theories, which is whether the perceived lack of social skills of Asian Americans explains the disparity between Asian Americans and whites in terms of hireability and promotion. Specifically, this thesis will test this theory by conducting a survey, a field study, and three experiments.

1.4 Overview of the Studies and the Hypotheses
This thesis consists of five studies (including the rerun of Study 4 in Chapter 6). The Study 1, entitled “competence versus social skills – how Asian Americans are perceived”, investigates how whites and Asian Americans view themselves and each other on the dimensions of competence and social skills. Using the University of Massachusetts undergraduates as their participants (82.4% whites and 8.9% Asians), Fiske and her colleagues (2002) find that Asians as a group are viewed among the most highly competent in American society, similar to white people and Jews, but are less socially skilled (labeled as “warmth”) than white people and middle-class people (figure 3 of Fiske et al., 2002). Based on this finding, we predict that whites will view Asians to be at least as competent as whites, but less socially skilled than whites.

Hypothesis 1a: Asian Americans are perceived by whites to be at least as competent as whites.

Hypothesis 1b: Asian Americans are perceived by whites to be less socially skilled than whites.

But how do Asian Americans view themselves relative to whites? Fiske and her colleagues (2002) did not provide a clear prediction on this matter. Since stereotypes are a social construct and people do not live in vacuum, it is reasonable to argue that people in the same society are generally susceptible to a similar set of beliefs, norms and expectations. Therefore, we predict that Asians and whites hold the similar perceptions about Asian Americans on the dimensions of competence and social skills.

Hypothesis 1c: Asian Americans perceive themselves to be at least as competent as whites.
**Hypothesis 1d:** Asian Americans perceive themselves to be less socially skilled than whites.

Study 2, entitled “extending to the workplace – how Asian Attorneys are perceived,” examines the annual reviews of Asian vs. white attorneys on two dimensions of the ratings (technical skills vs. social or “people” skills) in a big law firm in the eastern United States. This study improves the external validity of Study 1 and predicts that, relative to whites, Asian American Attorneys are likely to receive lower ratings on a social skills scale, but not on a technical skills scale. No separate hypotheses are listed specifically for Study 2.

Studies 3 and 4 recruit white participants. Extending Study 1, Study 3 explores how the perceived lack of social/people skills may affect Asian American’s chances of being hired into technical vs. non-technical positions upon college graduation. Specifically, participants will adopt the role of a company recruiter who is in the process of recruiting college graduates to fill a public relations specialist position or an IT analyst position. Participants will be randomly assigned to one of the two conditions (white candidate condition and Asian candidate condition). In both conditions, candidates are applying for the IT analyst position and the PR specialist position. We hypothesize that, relative to the white candidate, the Asian candidate will be perceived at least as competent (H1a), but less socially skilled by white participants (H1b). We also expect that the participants will be more willing to hire the Asian candidate than the white candidate for the technical relative to the non-technical position, and the perceived lack of social skills of the Asian candidate can explain the hiring choice difference.
Hypothesis 2a: Evaluators are more willing to hire the Asian Candidate than the white candidate for the technical position relative to the non-technical position.

Hypothesis 2b: The perceived lack of social skills of Asians explains the effect of race on evaluators’ willingness to hire for the technical versus the non-technical position.

Extending Studies 2 and 3, Study 4 will investigate whether Asian attorneys have lower probabilities of being promoted into management positions relative to their white counterparts in a hypothetical law-firm scenario, and what role the perceived lack of social skills of Asians plays in this promotion experiment. Specifically, white male and female participants will be recruited and ask to adopt the role of a senior managing partner in a big law firm and make a decision about whether to promote a lawyer to managing partner based on a written personnel profile of a junior partner. Again, participants will be randomly assigned to one of the two conditions: white vs. Asian candidate. We expect to replicate the findings in Study 3. Specifically, we expect to find that the Asian candidate is likely to be perceived as competent, but less socially skilled than the white candidate by white evaluators (H1a and H1b), and evaluators will be less willing to promote the Asian candidate than the white candidate and the perceived lack of social skills of the Asian candidate will explain this promotion differential.

Hypothesis 3a: Evaluators are less willing to promote the Asian candidate than the white candidate.

Hypothesis 3b: The perceived lack of social skills of Asians explains the effect of race on evaluators’ willingness to promote.
For exploratory purposes, we will rerun Study 4 using an older adult sample (Study 5 in Chapter 6) to test the same set of hypotheses examined in Study 4. Therefore, no separate hypotheses are listed for Study 5.
Chapter 2: Study 1: Competence versus Social Skills - How Asian Americans Are Perceived

The stereotypes of Asian Americans include being hardworking, law-abiding, family-oriented, intelligent, technically skilled, but not very sociable or fun-loving. Previous research has shown that Asian Americans are perceived high on competence but low on warmth, similar to Jews and career women in the U.S. (Fiske et al., 1999, 2002; Lin et al., 2005). The current study is designed to demonstrate how Asian Americans are perceived on the dimensions of competence and social skills relative to whites by white and Asian participants, respectively. We hypothesize that Asian Americans will be perceived by whites to be as competent as whites, but less socially skilled than whites (H1a and H1b); and Asian Americans perceive themselves in comparison with whites in a similar way (H1c and H1d).

2.1 Method

Participants and Procedure

Fifty eight students (27 Asian Americans, 23 whites, 3 African Americans, 3 Hispanics, and 2 mixed) from universities in the Pittsburgh area participated in the study. Participants were instructed to access a website and take an online survey titled “group opinion study”. The survey asked participants to provide societal views about Asian Americans and whites on the dimensions of competence and social skills. The order of which racial group was viewed first was counter-balanced. Participants received $10 for their participation. We excluded 8 non-white or non-Asian participants from the data analysis, because this survey tests hypotheses on how Asians and whites (not other racial groups) view themselves and each other.
**Measures**

We used two measures of competence (trait competence and behavioral competence) and two measures of social skills (trait social skills and behavioral social skills). The trait measures refer to the static group characteristics and the behavioral measures refer to the dynamic group characteristics (evidenced during interpersonal interactions).

*Trait measures of competence and social skills.* The trait competence measure included six items that were adopted from Fiske *et al.* (2002) (competent, intelligent, confident, capable, efficient and skillful) and one reverse-scored item (sluggish) that we added in. The trait social skills measure included six items from Fiske *et al.* (2002) (sincere, good natured, warm, friendly, well-intentioned and trustworthy) and one reverse-scored item (unapproachable) that we added in. Participants rated on a scale of 1-7 (1 = not at all, 7 = perfectly) on how much each of the words characterized their impression of Asian Americans and whites.

*Behavioral measures of competence and social skills.* For the behavioral competence and social skills measures, we adopted the Scale of Anti-Asian American Stereotypes (SAAAS) developed by Lin *et al.* (2005). The SAAAS contains 13 sociability items and 12 competence items. Examples of sociability items include “Asian Americans commit less time to socializing than others do,” “Asian Americans do not usually like to be the center of attention at social gatherings,” and “Asian Americans put higher priorities on their social lives” (reverse-score). Examples of competence items include “Asian Americans seem to be striving to become number one,” “Asian Americans can sometimes be regarded as acting too smart,” and “As a group, Asian
Americans are not constantly in pursuit of more power” (reverse-scored). We used the 12 competence items in the SAAAS as the behavioral competence measure of Asian Americans and the 13 sociability items as the behavioral social skills measure of Asian Americans. We replaced the word “Asian Americans” with the word “whites” to modify the measures so that they can be used for evaluating whites as well. Participants rated the items on a scale of 1-7 (1 = strongly disagree, 7 = strongly agree) based on how much they agree with each of the statements.

2.2 Results and Discussion

Scale reliability

The reliability for all four measures were high (alphas: trait competence measure = .80 for Asian target and .78 for white target, trait social skills measure = .80 for Asian target and .82 for white target, behavioral competence measure = .85 for Asian target and .79 for white target, behavioral social skills measure = .84 for Asian target and .90 for white target). Given the high reliabilities of the measures, eight composites were constructed for the four scales by averaging (four for Asian target and four for white target). Table 1 summarizes the eight composites.

Perceived competence and social skills of Asian Americans vs. whites

White participants perceived Asians to be more competent than whites on the trait competence measure ($M = 5.49$ for Asians and 5.08 for whites, $t [22] = 2.92, p < .01$), but less socially skilled than whites on the behavioral social skills measure ($M = 3.20$ for Asians and 4.80 for whites, $t [22] = -6.57, p < .001$). White participants did not perceive Asians differently from whites on the trait social skills measure and behavioral competence measure. The overall pattern provides partial support for H1a and H1b.
Asian participants perceived Asians more competent than whites on both trait competent ($M = 5.29$ for Asians and 4.58 for whites, $t_{[26]} = 4.17, p < .001$) and behavioral competent measures ($M = 5.31$ for Asians and 4.27 for whites, $t_{[26]} = 6.16, p < .001$), supporting H1c, and less socially skilled than whites on both trait social skills ($M = 4.04$ for Asians and 4.82 for whites, $t_{[26]} = -4.37, p < .001$) and behavioral social skills measures ($M = 3.25$ for Asians and 5.35 for whites, $t_{[26]} = -10.60, p < .001$), supporting H1d.

Combining both Asian and white participants, our analysis suggests that Asians were perceived to be more competent than whites on both trait competence ($M = 5.38$ for Asians and 4.81 for whites, $t_{[49]} = 5.06, p < .001$) and behavioral competence measures ($M = 4.29$ for Asians and 4.73 for whites, $t_{[49]} = -3.45, p = .001$), but less socially skilled than whites on both trait social skills ($M = 5.12$ for Asians and 4.53 for whites, $t_{[49]} = 4.24, p < .001$) and behavioral social skills measures ($M = 3.23$ for Asians and 5.10 for whites, $t_{[49]} = -11.88, p < .001$).

For exploratory purposes, we also asked some of the participants to compare Asians and whites on competence and social skills explicitly on a scale of 1-7 (1 = definitely whites are more competent/socially skilled; 4 = no difference on competence/social skills between whites and Asian Americans; 7 = definitely Asian Americans are more competent/socially skilled). We used a single-item measure for competence and another single-item measure for social skills. One-sample t-tests showed that white participants considered Asians to be marginally more competent ($M = 4.38, t_{[15]} = 1.86, p = .08$), partially supporting H1a, but significantly less socially skilled ($M = 2.88, t_{[15]} = -6.26, p < .001$) than whites, supporting H1b. The views held by Asian
participants were even stronger, where Asian participants considered that Asians were significantly more competent ($M = 4.55, t [22] = 2.16, p < .05$) than whites, supporting H1c, but significantly less socially skilled than whites ($M = 2.36, t [22] = -6.76, p < .001$), supporting H1d. If combining both Asian and white participants, we found that overall Asians were viewed to be more competent than whites ($M = 4.47, t [38] = 2.83, p < .01$), but less socially skilled than whites (mean = 2.58, $t [38] = -8.73, p < .001$).

**Discussion**

The results largely confirmed the hypotheses that Asians were perceived to be less socially skilled than whites but at least as competent as whites (if not more) by both whites (H1a&b) and Asians (H1c&d). Our study differs from Fiske and her colleagues’ studies, because our study is the first to test how Asians and whites view *each other* on the dimensions of social skills and competence. By and large, Asians and whites held similar views on this matter as evidenced by our data.

Interestingly, compared with white participants, Asian participants adopted the views even more strongly -- Asians were less social skilled but more competent (not just as competent) than whites. Another interesting finding is that the difference in social skills between Asians and whites seems to be larger than the difference for competence. A study conducted by Lin et al. (2005) suggests that the lack of sociability, not excessive competence of Asians, predicts negative impressions about Asians. In other words, the perceived lack of social skills may be a more powerful predictor of the likeability of Asians than the perceived competence. Our results on the larger difference in social skills than in competence between Asians and whites are certainly consistent with their
findings. The bigger the difference between Asians and whites, the more noticeable the difference is, and more likely the difference can predict impressions of Asians vs. whites.

One of the major remaining issues is whether the general views about Asians and whites regarding competence and social skills exhibited in this survey can be replicated in more natural settings (i.e., workplace). Chapter 3 will investigate this question and provide additional tests to our hypotheses.
Chapter 3: Study 2: Extending to the Workplace – How Asian Attorneys Are Perceived

Study 1 provides initial evidence to support our hypotheses that Asian Americans are perceived as competent (if not more competent), but less socially skilled than whites by both whites (H1a and H1b) and Asians (H1c and H1d). A possible criticism to Study 1 could be that participants were largely college students in an engineering-focused school where Asians there were more likely to be “nerdy”, affecting how students there perceive Asians. And the stereotypical perceptions of Asians could be magnified in those participants. If the focus of the study shifts to other populations where being socially skilled is more critical for career success, will Asians in those populations be perceived differently retaining their social skills and competence? To test that, we conducted Study 2 in a big law firm to investigate if there is a difference in perceived social skills between Asian and white attorneys and if the results are consistent with the patterns discovered in Study 1.

3.1 Method

Archival data

We retrieved performance evaluation data for 2006 from a big law firm in the eastern U.S. The law firm had 268 associates (202 whites, 36 Asians, 19 Hispanics, 10 African Americans, and 1 Native American). Each associate was evaluated by other associates (at least 2 years or more senior) and partners on the same project teams. Each associate was evaluated by between 1 and 32 evaluators. There was no significant difference by race in the number of evaluators ($M = 5.71$ for whites, $6.17$ for Asians, $6.20$ for African Americans, and $5.00$ for Native American, $F[4, 267] = .22, ns$). We
computed the averages across evaluators on each review item for each of the associates rated. The evaluation data were used by the firm to make decisions about promotions and raises.

*Scale construction*

Each evaluation contained 26 items of numeric ratings on a scale of 1-5 (1 = seriously below expectations; 2 = below expectations; 3 = meets expectations; 4 = exceeds expectations; 5 = outstanding). The 26 items were formally grouped into six categories (except for one single item on overall performance rating). The six categories were technical excellence, superior delivery of client service, attributes of effective lawyering, teamwork and leadership, attitude and personality, and understanding of and dedication to the firm’s mission. Appendix A lists all evaluation items in their corresponding categories.

We conducted a factor analysis to analyze the structure of the 26 review questions. Only one dominant factor (alpha = .98) emerged, which explains 63.4% of the variance in all of the review questions. This indicates that evaluators were not successfully discriminating among the 26 individual items of performance elicited on the review form. An overall rating score was computed by averaging the 26 items.

We also created two subscales that meet two goals simultaneously: each subscale is composed of items that are maximally correlated with each other (creating a high reliability within the subscale) and at the same time be maximally distinctive, such that each subscale is measuring something as different as possible. The factor analysis suggested that six items clustered well together around a technical dimension (i.e., analysis, knowledge, research, drafting, strategic/value-added thinking, and legal
judgment), and another six items clustered around a social skills dimension (i.e., leadership skills, relationship/communication with co-workers, delegation and training of subordinates, self-awareness and temperament, responsiveness to criticism, and sensitivity and tact). The subscales created around each of two dimensions resulted in two separate measures with a high reliability (alpha = .94 for the technical subscale, and .93 for the social skills subscale), and they were not perfectly correlated with each other \((r = .73)\). We used all three scales (overall rating, technical subscale, and social skills subscale) in the following analysis. We also conducted an exploratory analysis on the single-item overall performance evaluation (item 26 in Appendix A).

### 3.2 Results and discussion

**Perceived competence vs. social skills between Asian vs. white attorneys**

Table 2 shows the means of the overall rating (the average of all 26 items), the technical subscale, the social skills subscale, and the single-item overall performance evaluation by race. Asian attorneys were rated to be just as competent as white attorneys on the technical subscale \((M = 3.69\) for Asians and 3.84 for whites, \(t [236] = 1.55, p = .12\)), but lower on the social skills subscale \((M = 3.75\) for Asians and 3.93 for whites, \(t [235] = 2.01, p < .05\)). The low social skill score also drags down the overall measure of the Asians, such that Asians were rated marginally lower than whites on the overall rating \((M = 3.76\) for Asians and 3.91 for whites, \(t [236] = 1.74, p = .08\)). Interestingly, there was no significant difference on the single-item overall performance evaluation between the two racial groups \((M = 3.84\) for Asians and 4.03 for whites, \(t [229] = 1.62, p = .11\)).

**Evaluations between other racial groups**
African American vs. white attorneys. African American attorneys were rated lower than whites on the overall rating ($M = 3.57$ for African Americans and $3.91$ for whites, $t [210] = 2.12, p < .05$), on the single-item overall performance evaluation ($M = 3.68$ for African Americans and $4.03$ for whites, $t [205] = 1.80, p = .07$), and on the technical subscale ($M = 3.38$ for African Americans and $3.84$ for whites, $t [210] = 2.61, p = .01$). There was no significant difference between the two groups on the social skills subscale ($M = 3.77$ for African Americans and $3.93$ for whites, $t [209] = .96, ns$).

Hispanics vs. white attorneys. Similar to the patterns of the comparison between African American and white attorneys, Hispanic attorneys were rated marginally lower than white attorneys on the overall rating ($M = 3.69$ for Hispanics and $3.91$ for whites, $t [219] = 1.99, p = .06$), and significantly lower on the single-item overall performance evaluation ($M = 3.63$ for Hispanics and $4.03$ for whites, $t [214] = 2.71, p < .01$) and on the technical subscale ($M = 3.56$ for Hispanics and $3.84$ for whites, $t [219] = 2.15, p < .05$). Similar to the case for African Americans, there was no significant difference on the social skills subscale ($M = 3.82$ for Hispanics and $3.93$ for whites, $t [218] = .90, ns$).

Difference among Asian, African American and Hispanic Attorneys. The only marginally significant difference among the three minority groups was on the technical subscale between Asian and African American attorneys ($M = 3.69$ for Asians and $3.38$ for African Americans, $t [44] = -1.87, p = .07$). None of other comparisons between Asians and African Americans, between Asians and Hispanics, or between African Americans and Hispanics on any measures were significant or marginally significant.

Discussion
The results of Study 2 were consistent with the findings in Study 1, where Asians were viewed lower on social skills than whites, but not on technical skills. Although all three minorities were rated lower (marginally significant or significant) than whites on the overall performance rating, different patterns emerged when breaking the ratings down to the technical subscale and the social skills subscale, such that Asians were lower than whites on the social skills subscale, but African Americans and Hispanics were lower than whites on the technical subscale. The perceived lack of social skills seemed to be confined only to Asian attorneys, and it was not a shared characteristic of all minorities. One caveat is that we do not have large sample sizes of African American attorneys (n=10) and Hispanic attorneys (n=19) in this law firm to make a strong conclusion on this matter.

Another interesting finding is that there was no significant difference between Asians and whites on the single-item overall performance measure (item 26 in Appendix A). Performance measures serve multiple purposes and they tend to have the greatest impact on salary administration and performance feedback (Cleveland, Murphy, & Williams, 1989). In this study, we do not know for sure how the performance review data were used by the law firm. If the firm has a special interest in the single-item summary measure and use other items in the review for the feedback and development purposes only, the summary measure may directly determine one’s promotions and raises. Although there was no statistically significant difference if the measure was viewed as a continuous variable, there could be a huge difference if the firm treats it as a categorical variable (3 = meets expectations and 4 = exceeds expectations). From the firm’s perspective, an average score of 3.84 for Asians indicates that Asians are meeting the
expectations on average, while an average score of 4.03 for whites means that whites are exceeding the expectations on average. Therefore, this statistically insignificant difference could possibly lead to meaningful differences in Human Resources practice (e.g., promotions and raises) under certain circumstances.
Chapter 4: Study 3: An Experimental Study of a Hypothetical First Job Placement of College Graduates (Asian versus White)

Study 1 and Study 2 suggest that there is a perceived lack of social skills among Asian Americans in general (Study 1) and among Asian attorneys in specific (Study 2). But what are the consequences of this perception and how does it affect Asians’ chances of getting hired in the workplace? Extending Study 1, Study 3 investigates whether Asian Americans face relative barriers in entering non-technical versus technical fields upon college graduation. Specifically, this experiment tests H1a-b and H2a-b outlined in Chapter 1.

4.1 Method

Participants

The participants were 101 white adults (55 men and 46 women) recruited by a market research firm to participate in an online study entitled “college major and career opportunity study”. The median age was 39 years \((M = 40.83, \text{Min} = 25, \text{Max} = 63)\). The median full-time work experience was 18 years \((M = 19.37, \text{Min} = 5, \text{Max} = 48)\). Fifty seven percent of the participants held college degrees. They received points redeemable for prizes from the market research firm for completing the survey.

Procedure

An email invitation with a web link to the survey was sent to the participants by the market research firm. Participants accessed the online survey by clicking the web link. To cover the true purpose of the study (which is to investigate how people evaluate Asian vs. white job candidates differently regarding perceptions of social skills and hireability), the participants were told that the study was to examine “the impact of
holding double majors on students’ career opportunities,” and were asked to play the role of a potential employer who is in the process of hiring fresh college graduates for one of the two positions (an IT analyst position and a public relations specialist position) offered by XYZ corporation.

In the first step, the participants were asked to review a student’s cover letter and resume. They were randomly assigned into one of the two conditions (Asian vs. white). The only difference between the Asian and the white condition was the last name of the job candidate. The last name “Wong” was used in the Asian condition and “Smith” was used in the white condition. We chose a gender neutral first name “Alex” for the job candidate. In particular, we make sure that it was clear that Alex was US born. All of other information was identical across the two conditions. The job candidate was portrayed as a graduating senior with a Bachelor of Science degree in Communications and Information Systems (double major) from a major public university and in the process of seeking an entry-level position in the areas of information technology or public relations. The resume of the job candidate suggested that the candidate had experience in both areas (such as, an internship in public relations and part-time jobs in information technology) and had taken coursework in both areas as well. Please see Appendix B for the cover letter and the resume of the job candidate. The cover letter and resume were written in a way that the job candidate could be potentially qualified for either the IT analyst position or the public relations specialist position.

In the second step, the participants were asked to review the job positions – the IT analyst position AND the public relations specialist position (Appendix B). The IT analyst position requires the job candidate majoring in the areas of information systems
or software development with a special emphasis on technical skills (such as problem-solving skills), while the public relations specialist position requires the job candidate majoring in the areas of communications or business and focuses on social skills (such as interpersonal communication skills). Please see Appendix B for the detailed job descriptions and key qualifications for both positions.

In the third step, the participants provided their evaluations of the job candidate after reviewing the candidate’s profile (including cover letter and resume) and both job descriptions. Specifically, they were asked to choose which job (between the PR specialist position and the IT analyst position) to put the candidate in. They also answered questions regarding their impression of the candidate along the dimensions of social skills and competence. The items were adopted from Fiske et al. (1999, 2002) by adding additional items such as socially adept and socially skilled. After they submitted the survey questions, the website directed them to an exit questionnaire containing manipulation checks, demographic questions and debriefing information. The manipulation checks tested the participants’ perceptions of the candidate’s race.

4.2 Results and Discussion

We removed 41 cases because the participants failed to correctly identify the race of the job candidate, suspected the study was about race or answered the entire page of survey by filling in one constant number. The sample of data analyzed were the remaining 60 participants (29 men and 31 women).

*Dependent measure: relative willingness to hire the candidate between IT analyst position and PR specialist position*
To create our dependent measure on relative willingness to hire the candidate for the IT analyst position versus the PR specialist position, participants evaluated on a scale of 1-6 (1 = very likely PR specialist position; 6 = very likely IT analyst position) on which position matches the candidate’s educational background better and which position they would be more willing to offer to the candidate. We averaged the two measures to create the dependent measure (alpha = .88).

*Other measures: Competence and social skills*

To create the competence scale, we averaged six impression items (1-6 measure: 1 = not at all, 6 = extremely) related to competence, which are competent, confident, intelligent, capable, efficient and skillful (alpha = .88). We also averaged six social skills related items (warm, good-natured, trustworthy, socially-adept, popular, and socially-skilled) to create the social skills scale (alpha = .92). Competence and social skills were significantly correlated, $r = .73$, $p < .001$. There was no significant difference between the Asian candidate and the white candidate on perceived competence ($M = 4.43$ for Asian candidate and 4.67 for white candidate, $t(58) = 1.18$, $p = .24$), but we did find a significant effect of race of candidate on perceived social skills, such that the Asian candidate was perceived as less socially skilled than white candidate ($M = 3.47$ for Asian candidate and 4.13 for white candidate, $t(58) = 2.88$, $p < .01$), supporting H1a&b.

*Effect of race on hiring choices*

Candidate’s race did not have a significant effect on evaluators’ willingness to hire for the IT position relative to the PR position (beta = .11, $t(58) = .83$, $p = .41$), not supporting H2a. This result surprised us. We suspect that gender of the evaluators could play a role here. We believe that hiring differentials are more likely to occur when
evaluators consider social skills very important for the position under consideration. In other words, some evaluators might share the belief that Asians lack social skills, but as long as they believe that social skills are not essential for the job, they might still hire Asians at the same rate as whites.

Furthermore, certain demographic group may be more sensitive to the importance of social skills in their decision to hire or promote candidates. Research on benevolent sexism suggests that “complementary gender differentiation” (e.g., women are warmer, more nurturing, or more socially skilled than men), a kinder and gentler form of prejudice, is more likely to be endorsed by women themselves (for review, see Glick & Fiske, 2001). An application of the endorsement in the workplace could be that, relative to men, women are more sensitive to the importance of social skills in hiring decisions, because they accept and expect higher standards of social skills (being warm, being sensitive to others’ needs) for themselves. Based on the above rationale, we re-analyzed the data by the gender of the evaluators.

Table 3 displays the results of the ANOVA of relative willingness to hire candidate (between IT and PR positions) by race of the candidate and gender of the evaluator. We did not observe any significant main effect for race of candidate or gender of evaluator ($p$s > .47). However, we did find a marginally significant interaction effect between race of candidate and gender of evaluator ($F[1, 56] = 3.14, p = .08$). To explore further, we reported means of willingness to hire the candidate into the IT position relative to the PR position by race of candidate and gender of evaluator in table 4. It suggests that male evaluators did not have strong preference in terms of hiring Asian vs. white candidates into the IT analyst position relative to the PR specialist position, $t(27) =$
.75, \( p = .46 \). In contrast, female evaluators were marginally more willing to hire Asian candidate than white candidate into the IT analyst position compared to the PR specialist position, \( t(29) = -1.77, p = .09 \).

**Potential mediator: Social skills**

Since there was no significant difference on competence by gender of evaluator, race of candidate or by the interaction of the two (all \( ps > .27 \)), competence was not a candidate for the mediation test. We then focused on social skills alone.

Social skills predicted evaluators’ relative willingness to hire the candidate for the IT position relative to the PR position, \( \beta = -.28, t(58) = -2.18, p = .03 \). Breaking down by the gender of evaluators, we further discovered that female evaluators indicated that social skills were very important in their decisions regarding which position to hire the candidate into (\( \beta = -.40, t(29) = -2.35, p = .03 \)), while male evaluators did not think social skills were important (\( \beta = -.12, t(27) = -.60, p = .55 \)). However, we did not find a significant interaction effect of gender of evaluator and perceived social skills on evaluator’s relative willingness to hire for the IT versus the PR position, \( t(56) = -1.18, p = .24 \), controlling for the gender of evaluator and perceived social skills. This is likely due to the lack of power in this study.

Table 5 displays three regression models where race of candidate and perception of candidates’ social skills independently and in combination predict female evaluators’ relative willingness to hire into the IT position relative to the PR positions. Race of the candidate had an independent and marginally significant effect on female evaluators’ relative willingness to hire (model 1). After adding social skills into the regression equation, its effect size dropped from .31 to .19 and became insignificant (the \( p \) value
increased from .09 to .30) while social skills still held a marginally significant effect ($p = .08$) with a sizable effect size (beta = -.33) (model 3). In addition, race of the candidate had a significant effect on the perceived social skills by female evaluators (beta = -.36, $t(29) = -2.09, p<.05$). We considered these to be initial evidence suggesting that perceived social skills of candidate may be the potential mediator of the effect of race on female evaluators’ relative willingness to hire between the IT and the PR positions. A follow-up Sobel test (Sobel, 1982) showed that social skills was not a significant mediator (Sobel $z = 1.37, p = .17$), however we believed this may be due to our small sample size. Further studies are needed to gather more evidence on this proposed mediation relationship.

*Effect of Asian exposure*

We asked participants about the zip code where they currently reside. We then used the zip code to access whether “exposure” to Asians (proxied by the percentage of Asians within that zip code) affected participants’ perceptions of Asians. The amount of Asian exposure had no significant effects on the perceived social skills of Asians (beta = .19, $t(23) = .95, p = .35$), on the perceived competence of Asians (beta = .28, $t(23) = 1.40, p = .18$), or on the evaluators’ relative willingness to hire Asians into the IT position relative to the PR position (beta = .13, $t(23) = .65, p = .52$). We re-analyzed the effect of Asian exposure by looking at male and female evaluators separately and found no significant effects on any of the key measures.

*Discussion*

The results of Study 3 supported our hypothesis that Asian candidates were viewed to be at least as competent as white candidates, but less socially skilled than their
white counterparts (H1a&b). The results suggested that selection of which job to put Asian versus white candidates into depended on two things – one, perceived social skills of the candidate and two, whether or not the evaluator considers social skills to be important for hiring the candidate into the given position.

Although male evaluators considered the Asian candidate to be less socially skilled than the white candidate, the perceived lack of social skills of the Asian candidate did not translate into job choice, because male evaluators indicated that social skills were not a significant factor in their decisions of whether to hire the candidate into the IT position versus the PR position.

On the other hand, female evaluators considered the Asian candidate to be less socially skilled than the white candidate (similar to male evaluators), and the perceived lack of social skills of the Asian candidate did translate into difference in job selection, such that female evaluators were more willing to hire the Asian candidate over the white candidate for the IT analyst position relative to the PR specialist position (different from male evaluators). In addition, our regression analysis (table 5) suggested that this job selection difference could be better explained by Asians’ perceived lack of social skills (models 2 and 3) than by race of the candidate alone (model 1).

Regarding Asian exposure, putting the power issue aside, we did not find any effect of amount of Asian exposure on how Asians were perceived on social skills and competence. This does not necessarily mean that the amount of Asian exposure has no effect at all on how people perceive Asians. It could be that the current measure of amount of Asian exposure (derived from the residing zip code) is not an accurate or
appropriate measure. Researchers should investigate the relationship between Asian exposure and perceptions of Asians further.

This experiment demonstrated the barriers to entry for Asian college graduates in certain jobs that require not only technical competence but excellent social skills when facing potential employers (i.e., female evaluators) who valued social skills highly. If Asians have reduced opportunities to succeed in positions requiring social skills, the stereotypes of Asians may become reinforced since more Asians will be channeled into more technically-oriented fields. This selection bias at the onset can reinforce Asians’ disadvantage in promotion and career mobility in the future.

Woo argues (2003) that Asians tend to hold technical positions in technical fields, and those positions tend not to be on the fast tracks in the organizations, which means those positions have limited potential for moving up to the organizational ladder. The selection bias upon college graduation is only the beginning of a life-time accumulation of the disadvantages that Asian graduates may face. Being selected out of certain types of positions in certain fields that emphasize communication and social skills reinforces the stereotypes that Asians are not good at interpersonal skills, while the perceived lack of interpersonal skills feeds back to this self-sustaining loop that Asians can not do certain types of jobs (mainly non-technical jobs).
Chapter 5: Study 4: An Experimental Study of a Promotion Decision in a Hypothetical Law Firm Scenario (Asian vs. White)

Study 3 suggests that Asian college graduates are less likely than white graduates to get into certain non-technical fields (i.e., public relations position in the experiment) if the future employers value social skills highly in their hiring decisions. What can we say about those Asians who were able to be hired into the fields that require a lot of interpersonal social skills (i.e., being lawyers)? Will the perceived lack of social skills still affect their chance of being promoted even if they have successfully entered those non-technical fields? We set up a law firm scenario to test our hypotheses (H3a-b) that, if social skills are considered very important for the position by employers, Asian attorneys will less likely be promoted to managerial roles than white attorneys and the perceived deficiency in social skills will explain this promotion differential. Similar to Study 3, we expect that male and female evaluators may consider the importance of social skills differently in their promotion decisions.

5.1 Method

Participants

The participants were 47 white adults (23 males and 24 females) in university communities located in the Northeastern US. They were recruited through a decision-making lab in that university to participant in a “hiring decision study”. The median age was 20.5 years ($M = 21.6$, Min = 18, Max = 27). Among them, 39.1% had some full-time work experience (averaged at 1.9 years). They received $10 for participation.

Procedure
An email invitation was sent out to those who had signed up for the survey. Participants clicked the link to the survey embedded in the email message and was directed to the survey website. After providing their consent to participate, they were asked to read some background information. The participants played the role of a senior managing partner in a large law firm in the United States, who is in the process of hiring a junior partner to head one of their offices in the Midwest. The Background Information continued to explain that the main job responsibility for the junior partner was “to promote the firm’s image and raise its name recognition in the Midwest, to expand the clientele and attract more business for the firm in the region, and to oversee and manage the attorneys and paralegals” in the office. To emphasize the importance of social skills (in addition to competence) for this position, the Background Information explained the ideal type of candidate: “a successful managing partner needs to be not only a great attorney with the ability to win cases for clients, but a terrific ‘sales’ person who can constantly promote the firm’s image and actively increase the firm’s business”.

Participants (as senior managing partner) wanted a junior partner who “possessed superior people-skills to motivate others” and “to foster a spirit of teamwork within the firm”.

After reviewing the Background Information, the website randomly assigned the participants into one of two profiles (white candidate profile or Asian candidate profile). The candidate for promotion was given a gender neutral first name “Pat”. We manipulated the race of candidate by giving the candidate a typical Asian last name (“Wong”) or a likely white name (“Smith”). With the exception of candidate’s last name, the two profiles were identical. The profile contained the candidate’s education
background, work experience, professional activities, some personal information, recent performance evaluation data, and additional comments from the HR manager of the firm about the candidate (see details in Appendix C). The profile was very clear that the candidate was US born and all of background information and personal experience was within the U.S.

After reviewing the candidate profile, participants provided their evaluations of the job candidate regarding the likelihood of hiring the candidate on various dimensions and their impression of the candidate regarding competence and social skills. After that, they completed an exit survey, containing manipulation checks, demographic questions and debriefing information.

5.2 Results and Discussion

All of participants passed the manipulation check by correctly identifying the race of the candidate.

Dependent measure: willingness to promote

To create our dependent measure of willingness to promote the candidate, participants evaluated on a scale of 1-7 (1 = not at all; 7 = extremely) on the following 7 items: How positive is your general impression of this candidate? How much do you think others in the [location] office would admire this candidate? How beneficial do you think it would be to have this candidate head the [location] office? How likely is it that you would put this candidate as a top-candidate on your list? How likely is it that you would interview this candidate for the job? How much do you think you would enjoy working with this candidate? And how likely is it that you would hire this candidate for the job? We averaged the 7 items to create our dependent measure (alpha = .88).
Other measures: Competence and social skills

To create the competence measure, participants evaluated on a scale of 1-7 (1 = not at all, 7 = extremely) on the following 3 items: How likely is it that this candidate has the analytical skills needed for the job? How likely is it that this candidate has the problem-solving skills for the job? How likely is it that this candidate has the critical thinking skills needed for the job? We averaged the 3 items to create a competence scale (alpha = .65). We also created a social skills scale by averaging the following 4 items (alpha = .76): How likely is it that this candidate has the social skills needed for the job? How likely is it that this candidate has the networking skills to bring in more business? How likely is it that this candidate can attract more quality lawyers to work in the office? How likely is it that this candidate will be outspoken for the firm’s interests? Competence and social skills were not significantly correlated, $r = .20, p = .18$. There was no significant difference between the Asian attorney and the white attorney on the perceived competence ($M = 6.00$ for the Asian candidate and 5.85 for the white candidate, $t(45) = -.73, p = .47$), supporting H1a. Surprisingly, contrarily to what we had expected, we did not observe any significant difference between the Asian attorney and the white attorney on the perceived social skills ($M = 4.20$ for the Asian candidate and 4.46 for the white candidate, $t(45) = 1.00, p = .32$), not supporting H1b.

Effect of race on willingness to promote

Candidate’s race did not have a significant effect on evaluators’ willingness to promote (beta = .01, t(45) = - .08, $p = .93$), not supporting H2a. Following the logic stated in Study 3, we examined the data further by gender of the evaluators.
Table 6 displays the results of the ANOVA on willingness to promote by race of candidate and gender of evaluator. There was no main effect of race of candidate or gender of evaluator on willingness to promote (both \( p > .35 \)). However, we did find a significant interaction between the race of candidate and the gender of evaluator on willingness to promote (\( F[1, 43] = 8.81, p < .01 \)). To explore this further, we reported the means of willingness to promote by gender of evaluator and race of candidate in table 7. We found that, contrary to what we had expected, male evaluators were more willing to promote the Asian candidate than the white candidate, \( t(21) = -2.48, p = .02 \); and female evaluators exhibited an opposite pattern, such that they were marginally less willing to promote the Asian candidate than the white candidate, \( t(22) = -1.77, p = .07 \). In addition, relative to male evaluators, female evaluators were significant less willing to promote the Asian candidate, \( t(20) = -2.92, p<.01 \).

**Effect of competence and social skills on willingness to promote**

Table 7 reported the means of competence and social skills by gender of evaluator and race of candidate. There were no significant differences on competence by gender of evaluator, race of candidate, or the interaction of the two (all \( p > .33 \)). In contrast, we found a significant interaction effect between gender evaluator and race of candidate on social skills, \( F[1, 43] = 8.30, p = .01 \). Female evaluators believed that the Asian candidate was less socially skilled than the white candidate, \( t(22) = 2.39, p = .03 \), while male evaluators showed an opposite pattern (though not significant, \( p = .12 \)). In addition, relative to male evaluators, female evaluators thought Asians were much less socially skilled, \( t(20) = -2.81, p = .01 \). There was no main effect of race of candidate or gender of evaluator on perceived social skills (both \( p > .26 \)).
Social skills did predict evaluators’ willingness to promote (beta = .67, t (45) = 6.12, p < .001). Breaking down by the gender of evaluators, female evaluators indicated that social skills were very critical in their promotion decisions (beta = .80, t(22) = 6.31, p < .001), and male evaluators held a similar view, but with a smaller effect size that was only marginally significant (beta = .36, t(21) = 1.79, p = .09). We did not find a significant interaction between gender of evaluator and perceived social skills on willingness to promote (beta = .88, t(43) = 1.33, p = .19), controlling for gender of evaluator and perceived social skills. We believe the insignificant interaction may be due to the lack of power.

Competence also predicted evaluators’ willingness to promote (beta = .36, t(45) = 2.61, p = .01). Breaking down by the gender of evaluators, only male evaluators considered competence important in their promotion decisions (beta = .49, t(21) = 2.59, p = .02), and female evaluators did not take competence into much consideration when deciding whether or not to promote the candidate (beta = .26, t(22) = 1.25, p = .23). Again, we did not find a significant interaction between gender of evaluator and perceived competence on the willingness to promote (beta = -.32, t (43) = -.25, p = .80), controlling for gender of evaluator and perceived competence. We believe the insignificant interaction may be due to the lack of power.

Using both social skills and competence to predict willingness to promote, we found that social skills became the only significant predictor for female evaluators (beta = .79, t(21) = 5.86, p < .001 for social skills; beta = .03, t(21) = .25, p = .80 for competence), while both social skills (beta = .33, t(20) = 1.83, p = .08) and competence (beta = .47, t(20) = 2.59, p = .02) were significant predictors for male evaluators. This
suggests that when making a promotion decision, male evaluators cared about both competence and social skills of the candidate, while female evaluators cared only about the social skills (but not competence).

Potential mediator: Social skills

Since competence was not a candidate for mediation (i.e., there was no effect on competence by gender of evaluators, race of candidate, or interaction of the two), we focused on social skills as the potential mediator of the interaction between gender of evaluator and race of candidate on willingness to promote.

We used Sobel test (Sobel, 1982) for the mediation analysis, and found that social skills fully mediated the negative effect of being Asian on female evaluator’s willingness to promote (Sobel $z = -2.19, p = .03$), and the effect of gender of evaluator on their willingness to promote Asian candidate (Sobel $z = -1.98, p < .05$). In addition, social skills also mediated the interaction between gender of evaluator and race of candidate on the willingness to promote (Sobel $z = -2.50, p = .01$).

Effect of Asian exposure

We asked participants about the zip code where they attended high school. Only 29 participants (62%) provided valid zip codes. Due to the limited sample size for that variable, we could not perform any meaningful analysis to determine if the effect of Asian exposure affected participants’ perception of Asians regarding social skills and willingness to promote the Asian attorney.

Discussion

The results of Study 4 showed that, relative to male evaluators, female evaluators were significantly less willing to promote the Asian attorney and the perceived lack of
social skills of Asians fully explained this effect. In addition, relative to white candidate, female evaluators were (marginally) less willing to promote the Asian candidate, which was fully mediated by the perceived social skills of the candidate.

Interestingly, male participants and female participants weighed social skills and competence differently regarding their importance to promotion decisions. Male participants took both competence and social skills into consideration, while female participants only took social skills, not competence, into consideration.

This experiment replicates the findings of Study 3 for female evaluators. Female evaluators perceived the Asian candidates to be less socially skilled than the white candidates, considered social skills very important in making the promotion decisions, and were marginally less willing to hire the Asian candidates than the white candidates as a result of believing that the Asian candidates lacked social skills.

On the other hand, the results of this experiment did not replicate what was found in Study 3 for male evaluators. Unlike what found in Study 3, male evaluators in this experiment did not think that the Asian attorney was less socially skilled than the white attorney. However, they did think social skills were important for the promotion decisions, different from Study 3 where they did not think social skills were important in their hiring decisions. Contrary to what we had expected, male evaluators indicated that they were more willing to hire the Asian attorney over the white attorney.

Regarding these inconsistencies for male evaluators, we would like to point out one major difference between the scenarios of the two studies. Study 3 was a hiring decision regarding entry-level positions while Study 4 was a promotion decision regarding a relatively-senior managing partner position in a law firm. Individuals are
likely to be perceived based on not only the demographic groups (i.e., gender, race, age) that they belong to but also their profession (i.e., what do they do for living). Because the job candidates in Study 3 were college students without much full-time work experience, the perceptions of the candidates were less likely to interact with the position under consideration. Any difference on the perceived competence and social skills of the candidates was likely to come from the race of candidate alone. On the other hand, the perceptions about the Asian attorney in Study 4 were likely to be influenced by not only the race of the candidate, but the interactive image of being an Asian attorney. Evaluators could derive certain impressions of the candidate from the candidate’s race and occupation (being a successful junior partner in a big law firm and being a candidate for a further promotion). It is reasonable to argue that male evaluators could have picked up the more salient feature (the occupation) and evaluated the candidate accordingly. Therefore, male evaluators did not indicate different perceptions of social skills between the Asian and white candidates. However, female evaluators may have different emphasis in their evaluations. Instead of focusing on the occupation (being an attorney), they may focus on the demographics of the candidate (being Asian), which is consistent with what they indicated in Study 3. One intriguing remaining question is that why male evaluators wanted to hire the Asian attorney more than the white attorney. A large sample replication with proper mediation mechanism is necessary to answer that.

This experiment demonstrated that the hiring disadvantage of Asians (relative to whites) could occur in senior managerial positions when the employers believed that only social skills (not competence) were important for the job (which is the case for female evaluators in this experiment). We like to think that Asian attorneys are a group of elites
in the society that are less likely to be subject to the stereotypes about Asians (i.e., lack of social skills), because as attorneys they should have proved themselves along the way that they are not only competent but, more importantly, socially skilled. Social skills are a set of fundamental survival skills for any attorneys, regardless of race. But the reality is that the perception about Asians being socially deficient hinders the career advancement of Asians attorneys under certain conditions.
Chapter 6: Study 5: A Re-run of the Promotion Decision Study - Hypothetical Law Firm Scenario Using An Older Sample

A college-age sample was used in Study 4 in chapter 5. This raises a potential concern that college-age participants may not have an accurate idea about what promotions in workplace look like due to their lack of work experience. We decided to re-run Study 4 using an older sample with a substantial amount of work experience. We believe that older adults might have different perspectives on how competent and socially skilled Asians are compared to whites and how important competence and social skills are in evaluating candidates for promotion. We used the identical survey materials and experimental procedures as outlined in chapter 5, but with different participants.

6.1 Method

Participants

The participants were recruited via a market research firm over the internet. The same recruiting method was used in Study 3 in chapter 4. They were 157 white adults (83 males and 74 females). The median age was 51 years ($M = 52.9$, $Min = 23$, $Max = 82$). All of them had full-time work experience ranging from 2 to 50 years and averaged 26 years. They received points redeemable for prizes from the market research firm in exchange for their participation.

Procedure

The exact same procedure described in chapter 5 was used with the exception that participants were recruited by the market research firm, not by the researchers directly.

6.2 Results and Discussion
We removed 31 cases where participants did not pass the manipulation checks, so the sample of data analyzed contained the remaining 126 cases.

**Dependent measure: willingness to promote**

Following the procedure outlined in chapter 5, we created our dependent measure (willingness to promote) by averaging the 7 individual items (alpha = .94). There was no main effect of race of candidate or gender of evaluator on willingness to promote (both ps > .44). Unlike what was reported in the younger sample, no interaction between the two was found either (p = .73). We reported the means of the dependent measure by gender of evaluator and race of candidate in table 8.

**Other measures: Competence and social skills**

Following the procedure outlined in chapter 5, we created a competence measure (alpha = .84) and a social skills measure (alpha = .86). Table 8 reported the means of competence and social skills by gender of evaluator and race of candidate. Participants perceived the Asian candidate to be more competent than the white candidate (beta = .31, t(124) = 3.57, p = .001). Breaking down by the gender of the evaluators, male evaluators believed that the Asian candidate was significantly more competent than the white candidate (beta = .34, t (67) = 2.91, p < .01), and female participants held a similar view with marginally significance (beta = .25, t (55) = 1.94, p = .06). And we did not find a significant interaction between gender of evaluator and race of candidate on perceived competence (beta = -.06, t(122) = -.37, p = .71).

There was no difference on willingness to promote or on perceived social skills by gender of evaluator, race of candidate or the interaction between the two (all ps > .43). Social skills and competence simultaneously predict willingness to promote for both male
and female evaluators (social skills: beta = .68, t (66) = 2.35, p = .03 for male evaluators; beta = .69, t (54) = 7.72, p < .001 for female evaluators; competence: beta = .20, t (66) = 2.35, p = .02 for male evaluators; beta = .23, t (54) = 2.54, p = .01 for female evaluators).

This suggests that participants, regardless of gender, do take both social skills and competence into consideration in making this promotion decision.

In addition, we ran a regression where race of candidate, perceived competence and social skills simultaneously predicting willingness to hire, and did not find any effect of race on the dependent variable (beta = .01, p=.82).

*Effect of Asian exposure*

Similar to Study 3, we asked participants about the zip code where they resided and computed the percentage of Asian population in the given zip code as a proxy measure of the amount of Asian exposure the participants had. The amount of Asian exposure did not predict the perceived competence of Asians (beta = -.12, t(62) = -.93, p=.36), nor the perceived social skills of Asians (beta = -.13, t(62) = -1.03, p=.31). However, it did predict participants’ willingness to promote the Asians (beta = -.25, t(62) = -2.01, p<.05). Breaking down by the gender of the evaluators, we found that the amount of Asian exposure had a negative and significant effect on the willingness to promote the Asians for male evaluators (beta = -.40, t(29) = -2.34, p=.03), but not for female evaluators (beta = -.00, t(31) = -.01, p=.99). Due to the lack of power, we did not find a significant interaction between gender of evaluators and the amount of Asian exposure on evaluators’ willingness to promote the Asians, controlling the amount of Asian exposure and gender of evaluators (beta = .08, t(60) = .53, p=.60).

*Discussion*
Our data suggest that there were no effects of race of candidate, gender of evaluator, or the interaction between the two on the willingness to promote. These same independent variables had no effect on perceived social skills of the candidate. However, both male and female evaluators indicated that the Asian candidate was more competent than the white candidate (significant for the male evaluators and marginally significant for the female evaluators). In addition, both competence and social skills predicted willingness to promote (for both male and female evaluators).

Regarding Asian exposure, the only significant effect that the amount of Asian exposure had on any of the key measures (social skills, competence and willingness to promote the Asians) was an unexpected negative effect on male evaluators’ willingness to promote the Asian candidates. In other words, the higher percentage of Asian population in the zip code where the male participants reside was related to the lower likelihood of promoting the Asian candidates by the same participants. We do not have a compelling explanation for this finding.

Different from the younger women (reported in chapter 5), the older women believed that the Asian candidate was marginally more competent than the white candidate and as socially skilled as the white candidate. They also believed that competence was very important for making the promotion decision (unlike the younger women who thought that only social skills, not competence, mattered).

The excessive competence of Asians could play another role. It did not make Asians more promotable, but it did not have the opposite effect either. In other words, the lack of social skills could negatively affect the Asians in this certain hiring scenario, but very high level of competence did not do any harm. Instead, the perceptions that the
Asian candidates were extremely competent may explain why older women did not discriminate against the Asian candidates.

These results did not replicate those in chapter 5. We can not pinpoint the exact reasons, because different samples were used. The two samples did not just differ by age, but in other dimensions related to age, for example, social-economic status, cohort, years of work experience, and education. This mystery awaits for future research.
Chapter 7: Overall Findings and Future Research

Overall findings

This thesis contains five studies (including a re-run of Study 4 in Chapter 6). Study 1 suggests that Asian Americans were viewed to be at least as competent as whites, but less socially skilled than whites by both whites and Asians, supporting H1a-H1d (chapter 2). Study 2 confirms these hypotheses and improves the external validity of the findings (chapter 3). Using the annual performance evaluation data from a large law firm in the Eastern U.S., our results suggest that Asian attorneys were evaluated less favorably than whites on the dimension of social skills, and there was no significant difference between the two groups on the dimension of technical skills.

Extending Study 1, Study 3 tests the impact of perceived lack of social skills of Asian college graduates on their chances of entering certain non-technical fields relative to technical fields (chapter 4). We found that Asians were viewed as less socially skilled than whites by both male and female evaluators. Female evaluators indicated the importance of social skills in their hiring decisions, and the perceived lack of social skills of Asians explains why female evaluators were less willingness to hire the Asian candidate into the non-technical position relative to technical one. On the other hand, male evaluators did not believe that social skills were important for their hiring decisions. As a result, although they did indicate the lack of social skills of the Asian candidate, as compared with the white candidate, they did not treat the Asian candidate differently from the white candidate regarding which job to pub candidate in.

Extending Studies 2 and 3, Study 4 investigates if being Asian negatively affects one’s opportunity to be promoted into a managerial position in a hypothetical law firm
scenario (chapter 5). We found that female evaluators were marginally less likely to promote the Asian candidate than the white candidate, and the perceived lack of social skills of the Asian candidate explains this race effect on female evaluators’ willingness to promote. In addition, relative to male evaluators, female evaluators were significantly less willing to promote the Asian candidate and the perceived lack of social skills of the Asians fully mediates this effect. On the other hand, male evaluators did not perceive the Asian attorney as less socially skilled than the white attorney. Rather, they indicated that they were more willing to promote the Asian candidate over the white candidate.

We also reran Study 4 using older adults (Study 5 in chapter 6). We did not find any effect of the race of candidate, gender of evaluator or the interaction between the two on the willingness to promote. We did find that older adults believed that the Asian candidate was more competent than the white candidate and as socially skilled as the white candidate. This view was shared by both male and female evaluators. The higher level of competence of Asians might have eliminated the hiring differential that was found among younger female participants in chapter 5.

The overall findings seem to be consistent with the idea that perceived social skills matter in hiring/promoting decisions when evaluators consider social skills to be important for those decisions.

Limitations

One major limitation is the artificiality of the candidate profiles for Studies 3, 4 and 5. In real hiring/promoting decisions, decision-makers are likely to draw information from other sources before a decision is made. This is especially true for the promotion case (Studies 4 and 5), where decision-makers tend to have a lot more information about
the candidate than what is present in the profile. This lack of external validity of the studies (more so for Studies 4 and 5 than for Study 3) concerns us.

Another limitation is about our experimental manipulation of Asian versus white conditions. We used a typical Asian (Chinese in this case) last name “Wong” and a likely white last name “Smith” to convey the race of the candidate. This operationalization of the manipulation has its limitations. In the future studies, researchers should try other typical Asian or possible white names to make sure that the effects found in this thesis are actually race specific and not name specific.

The third limitation regards the rerun of Study 4. We ran Study 4 twice using a younger college-age sample and an older adult sample. Our data cannot explain why the results were not replicated especially for female evaluators. One possible explanation is that the younger women cared about the candidate’s social skills only while the older women cared about the candidate’s competence in addition to social skills. Two different focus yields two different promotion decisions. Caring about social skills alone led to discrimination against Asians, while balancing social skills with competence eliminated the promotion differential.

The fourth limitation relates to the measure for the amount of exposure to Asians. We did not find any effect of the amount of Asian exposure on the perceived social skills or competence of Asians (Studies 3 and 5). We only had a very rough measure of the amount of Asian exposure derived from the participants’ zip code. Zip codes cover too big an area and cannot depict the exact nature of the Asian exposure. Future research should develop a better measure of the amount of Asian exposure.

*Contributions*
This thesis shows that perceived lack of social skills of Asians alone will not automatically trigger hiring or promoting differentials between Asian and white candidates. In order for the differential to occur, two conditions have to be met. One is that evaluators perceive the Asian candidate to be less socially skilled than the white candidate and the other is that evaluators believe that social skills are important for hiring/promoting the candidate. If only one condition is met, but not both, hiring/promoting differentials will unlikely occur. For example, in Study 3, male evaluators did not think social skills were important and therefore did not treat the Asian candidate differently from the white candidate, although they did indicate that they viewed the Asian candidate not as socially skilled as the white.

In this thesis, we used non-students and a more mature sample for Studies 3 and 5. This potentially increases the external validity of our studies. An average participant in Study 3 had 19 years of work experience, making a hiring decision of college graduates for entry-level positions. Although HR managers would be a better subject pool, the current sample of older adults is an improvement over the traditional college student sample researchers normally recruit.

*Implications*

This work provides practical implications for both managers and Asian job applicants. For managers who are interested in fair hiring practice, it is important to assess the skills (both technical competence and social skills) required for a position prior to reviewing applicant profiles. Doing so can minimize the impact of stereotypical beliefs about certain demographic groups on their chances of getting hired. Specifically, the
preconceived notion of Asians’ lack of social skills may prevent them from getting certain positions regardless of the skill sets required for the positions.

Another implication for managers is to review the job applicants’ profiles after removing demographic information (i.e., race and gender) and information that could imply a person’s race and gender. Blind review can minimize biases against certain groups due to stereotyping and help hiring managers to focus on the core competency of the applicants (i.e., educational background and related work experience), instead of non-essential information that could color their judgment.

For Asian job applicants, it is critical to provide sufficient evidence to demonstrate their social skills for positions of interest. Doing so can mitigate any preconceived notion that hiring managers may have on them regarding their perceived lack of social skills. In addition, personal contacts and professional references may help individualizing the Asian applicant by separating them from the group stereotypes.

Future research

Narrowly speaking, future research needs to explore the two unresolved issues in this thesis: (1) why the college student vs. older adult samples provide different assessments of the promotion scenarios, and (2) what effect the amount of Asian exposure may have on evaluators’ perceptions of Asian candidates.

Broadly speaking, future research should focus on three areas that help further the understanding of the glass ceiling for Asian Americans. First, research should study how to help Asians access other areas of the business (i.e., non-technical fields), and how to prevent them from being selected out of the managerial track in organizations. Second, research should study how Asians in technical fields can reach their full career potential
by (a) changing others’ perceptions (mainly the lack of social skills) of them, or (b) downplaying the relative importance of social skills in certain areas of operations, so the alleged lack of social skills can not be a legitimate excuse for holding them back. Third, for positions that social skills are considered to be critical, researchers should investigate effective ways that Asians in those positions can utilize to mitigate their disadvantages.

Lastly, besides the perception of social skills and competence, researchers need to investigate other factors that might explain hiring/promoting differentials between whites and Asian. If language serves as the proxy for nativity, speaking English at home could be an important variable to explore. Research by Black, Haviland, Sanders & Taylor (working paper) have found that Asian women’s wage gap, relative to white men, falls to being insignificant when limited to those Asian women who speak English at home, controlling highest degree, majors and age. Other important variables to explore include the role of mentoring and access to critical informal networks on job selection and promotion probability.
References


Black, D., Haviland, A., Sanders, S., & Taylor, L (working paper). Gender wage disparities among the highly educated.


Appendix A: Review Items for Study 2

Category 1: Technical Excellence
   Item 1: Analysis
   Item 2: Knowledge
   Item 3: Negotiation/advocacy
   Item 4: Oral Expression
   Item 5: Research
   Item 6: Drafting

Category 2: Superior delivery of client service
   Item 7: Ability to inspire client confidence
   Item 8: Attentiveness & responsiveness
   Item 9: Understanding of client & client business

Category 3: Attributes of effective lawyering
   Item 10: Ability to work independently
   Item 11: Decisiveness
   Item 12: Strategic/value-added thinking
   Item 13: Legal judgment

Category 4: Teamwork and leadership
   Item 14: Leadership skills
   Item 15: Relationship/communication with co-workers
   Item 16: Delegation and training of subordinates

Category 5: Attitude and personality
   Item 17: Enthusiasm and vitality
   Item 18: Self-awareness and temperament
   Item 19: Presence and confidence
   Item 20: Responsiveness to criticism
   Item 21: Sensitivity and tact

Category 6: Understanding of and dedication to the firm’s mission
   Item 22: Administrative responsiveness
   Item 23: Work ethic
   Item 24: Business development skills
   Item 25: Efficiency and productivity

Single-item overall evaluation (item 26): Please rate the associate’s overall performance
Appendix B: Experimental Materials for Study 3

1. Cover letter (replace “Smith” with “Wong” for the Asian condition)

Dear XXX,

I am a graduating senior with a Bachelor of Science degree in Communications and Information Systems (double major) from The Pennsylvania State University. Currently, I am seeking an entry-level professional position in the areas of information technology or public relations, preferably the intersection of the two.

As you can see by my enclosed resume, I have gained invaluable experiences as an intern (public relations summer intern), part-time employee (freelance computer consultant and undergraduate computer lab assistant) and volunteer (assistant editor to a student newspaper) in the areas of both public relations and information technology. My strong educational background and relevant work experience have shown a successful track record of ambition and desire to achieve.

Please be aware that I can relocate anywhere in the U.S., with a special preference for the Bay Area in California where I am originally from.

I would enjoy the opportunity to discuss my qualifications with you further in an interview. I may be reached at 814-231-XXXX or alex9st@psu.edu. Thank you for your time and consideration.

Sincerely,

Alex Smith
2. Resume (replace “Smith” with “Wong” for the Asian condition)

Alex Smith
1335 West Beaver Avenue
State College, PA 16801
(814) 231-XXXX
alex9st@psu.edu

OBJECTIVE:
To obtain an entry-level position in the fields of information technology or public relations, preferably the intersection of the two

EDUCATION:
Pennsylvania State University, University Park, PA
Bachelor of Science in Communications and Information Systems (double major)
Expected graduation date: May, 2008
Cumulative G.P.A.: 3.46/4.0

EXPERIENCE:
Freelance Computer Consultant (part-time), State College, PA, September 2007 – present

- Create web pages and customize computer systems for clients (mainly individuals and small businesses)
- Design and develop interface systems to improve web page efficiency


- Assist in the development of press materials
- Help coordinate meetings, special events and conferences
- Monitor media coverage and trends

Undergraduate Computer Lab Assistant (part-time), Pennsylvania State University, September 2006 – May 2007

- Assist in maintaining and updating computer hardware and software
- Troubleshoot Windows XP and Macintosh operating systems and various standard software packages

Assistant Editor (volunteer), The Daily Collegian Online, PSU’s Online Student Newspaper, Pennsylvania State University, September 2005 - May 2006

- Assist the editor in covering feature stories
- Partially responsible for updating the classifieds section of the newspaper
• Correct grammatical mistakes and stylize articles to the newspaper’s format

SELECTED COURSEWORK:

• Communications: Advertising and Marketing Communications; International Mass Communications; Intermediate Public Relations; Media and Public; News Writing Skill; Telecommunications Promotion and Sales
• Information Systems: Java Programming; Data Structure and Algorithms; Database Management; Distributed Technologies; Object Oriented Software Analysis and Design; Telecommunications and Information Systems

HONORS & ACTIVITIES:

• Honored with the prestigious CASP undergraduate Scholarship, 2005
• Peer mentor for freshmen and sophomores, 2006-2007
• Included in the Dean’s List, Fall 2005, Spring 2006, and Fall 2007

REFERENCES:
Available upon request
3. Job Descriptions

Alex Smith is interested in two positions at the XYZ Corporation: the IT analyst position and the public relations specialist position. XYZ is a large consumer-products company in the United States. It deals primarily with the research, development and production of consumer products, including food and drug retailing, beverages, household and personal products. Specifically, XYZ’s product portfolio focuses on beauty, grooming, health care, fabric care and home care, baby care and family care, as well as snacks, coffee and food. One of their regional offices is currently in the process of filling in an entry-level IT analyst position and an entry-level public relations specialist position. Job descriptions and key qualifications of each position are outlined below.

**IT Analyst Position**

**Job description:** The main job responsibility of the IT analyst is to provide internal technical support, and develop, implement and maintain databases for various sites within the company (mainly the production and marketing divisions). The IT analyst will design and build business applications in response to the needs of the company. The tasks involve most stages of the system lifecycles, including requirements analysis, application design, coding, testing, documentation, training, and product support. This job requires solid background in information systems and software design and implementation.

**Key qualifications:**
- Bachelor’s degree from a major university in the areas of information systems or software development
- Solid understanding of the software development lifecycles
- Must have superior problem-solving skills
- Strong interests in learning and mastering cutting-edge technologies and programming languages
- Must be ambitious, results-driven and can deliver under pressure

**Public Relations Specialist Position**

**Job description:** The main job responsibility of the public relations specialist is to plan and direct development and communication of informational programs to maintain favorable public perceptions of the company. The public relations specialist will arrange public appearances, lectures, contests, or exhibits to increase product awareness and to promote goodwill. Other tasks focus on establishing and maintaining cooperative relationships with representatives of community, internal clients, outside vendors and other public interest groups. Additional job responsibilities include pitching media stories, securing media sponsorships, and organizing media events.

**Key qualifications:**
- Bachelor’s degree from a major university in the areas of communications or business
- Must have superior written and verbal English communication skills
- Must be able to flourish in a team environment with strong service orientation
- Ability to develop, implement, and deliver appropriate communications vehicles and activities targeted to the public
• Must be energetic, ambitious, creative, persuasive, and excellent in interpersonal skills
Appendix C: Experimental Materials for Studies 4 and 5

Profile (replace “Smith” with “Wong” for the Asian condition)

You are reviewing Pat Smith's profile.

**Education**

**Work Experience**
Smith worked as an Associate at Werner & Young in Los Angeles right out of the law school, and then joined our firm as a Senior Associate in 1999. Smith was promoted to be a junior partner 3 years ago. Currently, Smith is one of the 219 partners in the firm.

As a junior partner, Smith practices in the firm’s business and litigation sections with a focus on corporate law, economic development and regulatory investigations. Smith has assisted California’s biggest foreign automobile manufacturing plant with the implementation of its incentive package with the State of California for the development of its plant in Cypress, California. Additionally, Smith has won a variety of cases representing franchise dealers in disputes with manufacturers and distributors. Most recently, Smith worked with the city of Irvine’s lawyers on regulatory matters involved in establishing a truck distribution facility in Irvine, California.

**Professional Activities**
Smith is the member of the American Bar Association and the California Bar Association. Smith has served on the Manufacturing Committee of the State Bar of California from 2004 to 2006, and was the Secretary to the committee from 2006 to 2007.

**Personal Information**
Born in the bay area in California, Smith is married and has a daughter and a son.

**Recent Performance Evaluation**
In the recent performance review, Smith received an overall review score of 4.3 out of 5 (5 = the highest score possible). Below are some comments received by Smith from the evaluators.

- Smith is a very committed attorney and delivers the highest quality of client service.
- Smith is very independent, hard-working, and exhibits good judgment.
- Smith is very intelligent and has strong analytical skills, can quickly grasp a problem.
- Smith’s performance depends on the nature of the assignments. For matters within the comfort zone, Smith functions well and exceeds the expectation. But Smith needs to push out of the comfort zone and demonstrate the ability to succeed in more challenging assignments.
- Smith needs to work a little harder on the administration that goes with the job but is aware of this.
Comments from the HR Manager about Pat Smith
Overall, Smith is an experienced commercial litigator who handles a wide range of disputes in a number of jurisdictions. Like most junior partners in the firm, Smith has limited managerial experience.
Table 1

Study 1: Summary of Means on Trait Competence, Trait Social Skills, Behavioral Competence, and Behavioral Social Skills by Target Race and Participant Race (Asians and Whites only)

<table>
<thead>
<tr>
<th></th>
<th>Asian Target</th>
<th>White Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trait Competence</td>
<td>Trait Social Skills</td>
</tr>
<tr>
<td>White Participant (n = 23)</td>
<td>5.49 (.80)</td>
<td>4.59 (.80)</td>
</tr>
<tr>
<td>Asian Participants (n = 27)</td>
<td>5.29 (.74)</td>
<td>4.04 (.73)</td>
</tr>
<tr>
<td>Combined (n = 50)</td>
<td>5.38 (.77)</td>
<td>4.29 (.80)</td>
</tr>
</tbody>
</table>

Note. All measures are on a scale of 1-7. Standard deviations are in the parentheses.
Table 2

*Study 2: Summary of Means on Overall Rating, Technical Subscale, Social Skills*

*Subscale, Single-item Performance Evaluation by Race*

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Asian</th>
<th>African American</th>
<th>Hispanics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=202)</td>
<td>(n=36)</td>
<td>(n=10)</td>
<td>(n=19)</td>
</tr>
<tr>
<td>Overall Rating</td>
<td>3.91</td>
<td>3.76</td>
<td>3.57</td>
<td>3.69</td>
</tr>
<tr>
<td>(Average of 26 Review Items)</td>
<td>(.50)</td>
<td>(.47)</td>
<td>(.30)</td>
<td>(.41)</td>
</tr>
<tr>
<td>Technical Subscale</td>
<td>3.84</td>
<td>3.69</td>
<td>3.38</td>
<td>3.56</td>
</tr>
<tr>
<td></td>
<td>(.55)</td>
<td>(.49)</td>
<td>(.32)</td>
<td>(.40)</td>
</tr>
<tr>
<td>Social Skills Subscale</td>
<td>3.93</td>
<td>3.75</td>
<td>3.77</td>
<td>3.82</td>
</tr>
<tr>
<td></td>
<td>(.49)</td>
<td>(.48)</td>
<td>(.35)</td>
<td>(.45)</td>
</tr>
<tr>
<td>Single-item Evaluation</td>
<td>4.03</td>
<td>3.84</td>
<td>3.68</td>
<td>3.63</td>
</tr>
<tr>
<td></td>
<td>(.62)</td>
<td>(.64)</td>
<td>(.43)</td>
<td>(.65)</td>
</tr>
</tbody>
</table>

*Note.* All measures are on a scale of 1-5. Standard deviations are in the parentheses.
Table 3

Study 3: ANOVA of Relative Willingness to Hire Between the PR Specialist Position and the IT Analyst Position by Race of Candidate and Gender of Evaluator (N = 60)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race of Candidate</td>
<td>1</td>
<td>1.03</td>
<td>.52</td>
<td>.47</td>
</tr>
<tr>
<td>Gender of Evaluator</td>
<td>1</td>
<td>.54</td>
<td>.27</td>
<td>.60</td>
</tr>
<tr>
<td>Race of Candidate x Gender of Evaluator</td>
<td>1</td>
<td>6.22</td>
<td>3.14</td>
<td>.08</td>
</tr>
<tr>
<td>Error</td>
<td></td>
<td>56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4

Study 3: Summary of Means on Relative Willingness to Hire, Competence and Social Skills by Race of Candidate and Gender of Evaluator (N = 60)

<table>
<thead>
<tr>
<th></th>
<th>Male Evaluator</th>
<th></th>
<th>Female Evaluator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asian Candidate</td>
<td>White Candidate</td>
<td>Asian Candidate</td>
<td>White Candidate</td>
</tr>
<tr>
<td>Willingness to Hire</td>
<td>2.79 (1.34)</td>
<td>3.18 (1.39)</td>
<td>3.63&lt;sup&gt;a&lt;/sup&gt; (1.37)</td>
<td>2.72&lt;sup&gt;b&lt;/sup&gt; (1.51)</td>
</tr>
<tr>
<td>Competence</td>
<td>4.50 (1.00)</td>
<td>4.73 (.83)</td>
<td>4.38 (.61)</td>
<td>4.60 (.68)</td>
</tr>
<tr>
<td>Social Skills</td>
<td>3.68&lt;sup&gt;a&lt;/sup&gt; (.93)</td>
<td>4.28&lt;sup&gt;b&lt;/sup&gt; (.84)</td>
<td>3.30&lt;sup&gt;c&lt;/sup&gt; (.85)</td>
<td>3.97&lt;sup&gt;d&lt;/sup&gt; (.93)</td>
</tr>
<tr>
<td>n</td>
<td>12</td>
<td>17</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

Note. All measures are on a scale of 1-6. Standard deviations are in the parentheses. A bigger value of the dependent variable indicates that candidate is more likely to be hired into the IT analyst position relative to the PR specialist position.

Between race of candidate: Superscripts (a, b) indicate significant mean differences at $p < .10$, and superscripts (c, d) indicate significant mean differences at $p < .05$.

There were no significant mean differences between gender of evaluator (all $ps > .12$).
Table 5

Study 3: Social Skills as the Potential Mediator for Female Evaluators’ Relative Willingness to Hire (N=31)

DV: Relative willingness to hire into the IT analyst position relative to the PR specialist position

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variables</th>
<th>Adjusted R-Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Race of Candidate</td>
<td>Social Skills</td>
</tr>
<tr>
<td>1</td>
<td>.31⁺</td>
<td>.07⁺</td>
</tr>
<tr>
<td></td>
<td>(1.77)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>- .40⁺</td>
<td>.13⁺</td>
</tr>
<tr>
<td></td>
<td>(-2.35)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>.19</td>
<td>-.33⁺</td>
</tr>
<tr>
<td></td>
<td>(1.05)</td>
<td>.14⁺</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.82)</td>
</tr>
</tbody>
</table>

⁺ p < .10, *p < .05 (two-tailed)

Notes. Beta coefficients are standardized. t-values are in parentheses.
Table 6

Study 4: ANOVA of Willingness to Promote by Race of Candidate and Gender of Evaluator (N = 47)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race of Candidate</td>
<td>1</td>
<td>.01</td>
<td>.02</td>
<td>.885</td>
</tr>
<tr>
<td>Gender of Evaluator</td>
<td>1</td>
<td>.60</td>
<td>.88</td>
<td>.353</td>
</tr>
<tr>
<td>Race of Candidate x Gender of Evaluator</td>
<td>1</td>
<td>5.97</td>
<td>8.81</td>
<td>.005</td>
</tr>
<tr>
<td>Error</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7

Study 4: Summary of Means on Willingness to Promote, Competence and Social Skills by Race of Candidate and Gender of Evaluator (N = 47)

<table>
<thead>
<tr>
<th></th>
<th>Male Evaluator</th>
<th>Female Evaluator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asian Candidate</td>
<td>White Candidate</td>
</tr>
<tr>
<td>Willingness to Promote</td>
<td>5.06&lt;sup&gt;c&lt;/sup&gt; (.73)</td>
<td>4.38&lt;sup&gt;d&lt;/sup&gt; (.57)</td>
</tr>
<tr>
<td>Competence</td>
<td>6.14 (.72)</td>
<td>5.91 (.75)</td>
</tr>
<tr>
<td>Social Skills</td>
<td>4.63&lt;sup&gt;e&lt;/sup&gt; (.67)</td>
<td>4.20 (.55)</td>
</tr>
<tr>
<td>n</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>

Note. All measures are on a scale of 1-7. Standard deviations are in the parentheses.

Between race of candidate: Superscripts (a, b) indicate significant mean differences at $p < .10$, and superscripts (c, d) indicate significant mean differences at $p < .05$.

Between gender of evaluator: Superscript (a, c) indicate significant mean differences at $p < .01$, and superscript (c, e) indicate significant mean difference at $p < .05$. 
Table 8

*Study 5 (An Older Sample Rerun): Summary of Means on Willingness to Promote, Competence and Social Skills by Race of Candidate and Gender of Evaluator (N = 126)*

<table>
<thead>
<tr>
<th></th>
<th>Male Evaluator</th>
<th>Female Evaluator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asian Candidate</td>
<td>White Candidate</td>
</tr>
<tr>
<td>Willingness to</td>
<td>4.63 (1.00)</td>
<td>4.40 (1.24)</td>
</tr>
<tr>
<td>Promote</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>5.75&lt;sup&gt;c&lt;/sup&gt; (.59)</td>
<td>5.15&lt;sup&gt;d&lt;/sup&gt; (1.04)</td>
</tr>
<tr>
<td>Social Skills</td>
<td>4.36 (.90)</td>
<td>4.38 (1.13)</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>36</td>
</tr>
</tbody>
</table>

*Note.* All measures are on a scale of 1-7. Standard deviations are in the parentheses.

Between race of candidate: Superscripts (a, b) indicate significant mean differences at $p < .10$, and superscripts (c, d) indicate significant mean differences at $p < .01$. 