# Stereotypes of Chinese by American College Students:
# Media Use and Perceived Realism

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This study explores American college students' stereotypes about Chinese and the influences of mediated information sources and perceived realism of media messages on those stereotypes. Results showed that American college students had positive stereotypes about Chinese but also perceived China as a potential threat to the United States. Students' use of media sources alone did not predict these stereotypes, whereas perceived realism and the interaction between it and media use were important predictors.

*Keywords: Chinese stereotypes, media use, perceived realism*

China has attracted worldwide attention with its decades of steady economic growth and its increasing political influence in world affairs. Many scholars attribute China's rapid development to its political strategies (Grasso, Corrin, & Kort, 2004), to its economic reform (Song, 2010), and to its cultural integration to globalization (Sutter, 2005). However, few studies have explored the domain of stereotypes of China or Chinese in the context of globalization. Considering the increasing globalization of Chinese business, education, and diplomacy (Friedman, 2006; Ferleger & Mandle, 2000; Gerdes, 2006), it is not unreasonable to expect increased interactions between people from China and people from other countries, especially the United States, because China has become the United States' second largest and fastest growing trade partner and its biggest source of imports (Morrison, 2014). It would therefore be instructive and meaningful to know how Chinese are stereotyped by Americans because these stereotypes may shape interactions (Allport, 1954; Hamilton & Trolier, 1986). Also, it is interesting to explore whether Americans perceive China as a potential threat or a partner to the United States because media have framed the relationship from different perspectives.

Theories and previous studies have shown that audiences can learn beliefs, values, and behaviors from media vicariously, particularly when direct learning experience is lacking (Bandura, 2002; Gerbner, Gross, Morgan, & Signorelli, 2002). According to social cognitive theory (Bandura, 2002), media play an important role in audiences' stereotypes about people from other countries because many people have no personal contact with people from other countries and rely mainly on mass media for information about them (Harris, 2004). Stereotypes of Chinese are found in many Western media (Kashiwabara, 1996). Although representations of Chinese have become more diverse, the overall portrayals of China and

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Chinese people do not accurately reflect Chinese behaviors or ways of life (Zhu & Christie, 2009). Interestingly, stereotypes of Chinese in other countries have been little studied, though a number of studies have been conducted about stereotypes of Americans abroad (e.g., DeFleur & DeFleur, 2003; Kohut & Stokes, 2006; Tan, Zhang, Zhang, & Dalisay, 2007). Therefore, the purpose of this study is to investigate how Chinese people are stereotyped and how China's relationship to the United States is perceived by American college students. In addition, traditional media-stereotyping research focused on either the stereotyped content in media or media's effects on stereotyping, and how people's processing of information might impact stereotypes has been studied less. Hence, this study integrates an audience's perceptions of the realism of media messages and their media use to investigate the effects of media on stereotypes of Chinese.

## Literature Review

### *Stereotypes*

Stereotypes were first defined by Lippmann (1922) as cognitive molds that reproduce mental models of people of a particular group. Stereotypes refer to simple and overgeneralized assertions about members of social categories (Hamilton & Trolier, 1986; Snyder & Miene, 1994). From an activation perspective, stereotypes can be understood as cognitive structures in our memories in which traits or attributes possessed by members of a social category are representative of that category (Dijksterhuis & Van Knippenberg, 1996; Hamilton & Trolier, 1986; Stangor & Lange, 1994). For the current research project, stereotypes refer to beliefs or opinions about the "characteristics or behaviors of members of other groups" (Hilton & von Hippel, 1996, p. 240), and these beliefs or opinions can be shared by members of a culture—though each individual might have slightly different stereotypes about a group, those individuals have a consensus about the general content of those beliefs (Whitley & Kite, 2009).

Stereotypes are an inevitable part of human communication and play an important role in our social life by serving the functions of ego defense and cognitive convenience (Snyder & Miene, 1994). Cognitively, stereotyping simplifies information processing. Human beings have limited cognitive capacity (Lang, 2000) and tend to resort to heuristic processing and simple categorization of incoming information (Chen & Chaiken, 1999). Instead of taking all related information into consideration (systematic processing), individuals tend to use existing schemas to make sense of incoming information about people from other social groups (Chen & Chaiken, 1999). In this way, stereotyping becomes a default strategy in our information-processing system to save cognitive energy.

### *Theories of Stereotype Formation and Information Processing*

Among many theories that explain processes of stereotype formation, social cognitive theory and cultivation theory provide solid frameworks to explain how media act as important social agents to affect individuals' stereotypes of other social groups, including people from other countries.

**Social Cognitive Theory.** Social cognitive theory explains how people learn values, beliefs, and attitudes by observation (Bandura, 2002). According to Bandura (2002), besides direct experience,

individuals can also learn from symbolic environments in a process called *vicarious learning*. Mass media become important agents of stereotype formation when direct contact between groups is lacking (Dixon, 2006). When exposed to mass media, individuals observe and retain information from mass media and are very likely to use that information for future judgment, especially after repeated exposure (Bandura, 2002). In this learning process, the salience of media information becomes the basis for individuals' future evaluation (Scheufele, 2000). Positive media representations lead to positive stereotypes, whereas negative representations lead to negative stereotypes (Tan, Fujioka, & Tan, 1997). Tan et al.'s study (1997) further suggests how television acts as a socializing agent and how TV viewers internalize and project the information they have observed from media into their own world views. Of importance to the current study, most Americans have limited opportunities to interact with Chinese directly. Therefore, they often rely on mass media to develop their perceptions of Chinese (Hall, 2000). Social cognitive theory has been proved to be valid to explain how media perpetuate Americans' stereotypes of social minority groups (e.g., Dixon, 2006) and how Chinese people formulate their stereotypes about Americans (e.g., Tan et al., 2007).

**Cultivation Theory.** Cultivation theory has been widely applied in mass-communication research, which explains how individuals' perceptions of reality are socially constructed, particularly under the influence of mass media (Gerbner, Gross, Morgan, & Signoreilli 2002). Specifically, the more media you are exposed to, the more likely your beliefs, values, and attitudes will be consistent with media representations. Cultivation hypothesis has been the basis for much media-stereotyping research. For example, Tan and his colleagues' study (2007) on stereotypes of African Americans by Chinese high school students found that the students' use of American media led to negative stereotyping of African Americans, whereas their use of Chinese media led to positive stereotyping of African Americans. Besides media exposure, individuals' evaluation of media messages could also moderate media's impacts on their perceptions.

**Perceived Realism.** Weaver and Wakshlag (1986) argued that in the cultivation process, viewers play an active role in interpreting information. Many studies have addressed the importance of perceived realism in media effects. Viewers make judgments about the extent to which mass media accurately reflect reality and about how believable media messages are. Studies have found that media users do not always perceive media representations as realistic. For example, Punyanunt-Carter's study (2008) found that viewers do not perceive media portrayals of African Americans as realistic. This further suggests the importance of incorporating perceived realism into studies of media stereotyping because if media users do not perceive media messages as realistic or believable, the chances of their being affected by those messages are slim. Studies on perceived realism can help us better understand whether critical assessment of media content interacts with the influence of media messages (Busselle & Greenberg, 2000; Hall, 2003; Shapiro & Chock, 2004).

Other studies have been conducted on the moderating role of realism on media effects, especially on fictional narratives or stories (e.g., Green & Brock, 2002). For example, Green and Brock (2002) found a positive correlation between perceived realism of a narrative and beliefs consistent with the theme of that narrative. However, few studies have tried to explore how perceived realism moderates the effects of media exposure (e.g., the frequency of watching television) on stereotyping. Therefore, this study also

investigates how perceived realism of media messages and the interaction between perceived realism and media use influence American college students' stereotypes about Chinese.

### *Media Representation of China*

Mass media are important sources of information about different cultures because many people interpret media messages as reality "when experiential knowledge does not exist" (Baker, 1996, p. 261). Unfortunately, media messages are far from being accurate. Studies have found that mass media create and perpetuate stereotypes (e.g., DeFleur & DeFleur, 2003; Gorham, 2006; Park, Gabbadon, & Chernin, 2006).

Since 1979, China and the United States have had a diplomatic relationship. With China's accelerated economic development and increasing political influence, the theory of a China threat has gained popularity within American media (Roy, 1996). Americans have regarded China as the "greatest potential to compete militarily with the United States" and have viewed that China "could over time offset traditional U.S. military advantages" (Quadrennial Defense Review Report, 2006, p. 29). China is also depicted as an economic threat to the United States. For example, in 2007, an article titled "The Chinese Century" in *TIME* magazine discussed the potential economic threats China posed to developed countries including the United States (Elliott, 2007).

Content analysis of American media coverage of foreign countries on four news networks (ABC, CBS, NBC, and CNN) showed that China ranked third in frequency of coverage and that the coverage focused on how China engages in activities that either threaten U.S. interests or challenge its values (e.g., democracy) (Wanta, Golan, & Lee, 2004). Liss (2003) also found that negative images of China overwhelm the positive ones in American print media. Specifically, he analyzed how China was portrayed in four major American daily newspapers: *The Washington Post*, *The New York Times*, *The Los Angeles Times*, and *The Wall Street Journal*. The study found that China was portrayed as an "aggressive, brutal, and dangerous place" (p. 310).

These studies demonstrate that China as a country has been negatively portrayed in the American news media. Previous studies also indicated that individuals relied largely on the news stories they read to form perceptions of other nations (Brewer, Graf & Willnat, 2003; Perry, 1985). By depicting China as a country aiming to challenge U.S. power and refuting principles and values that Americans embrace, the American news media could lead their audiences to view China as a threat to the United States. Therefore, the following hypothesis is proposed.

*H1.    Use of American news media by American college students is positively related to their perception of China as a potential threat to the United States.*

### *Media Representation of Chinese*

Though many studies have explored the representations of China as a country in American media, not many studies have focused on how Chinese people are generally depicted in American media. Liss (2003) found that contrary to the negative portrayals of China as a country, Chinese people were more likely to be cast in a positive light. Content analysis of four major American print newspapers found that average Chinese were typically shown with a deep admiration of American culture and "a rising aspiration for China to become a free and open society along the lines of the United States" (Liss, 2003, p. 317). Though not necessarily positive, these findings suggest that, in contrast to depictions of China as a country, Chinese people are depicted as sharing similar values and beliefs with Americans. Sabo, Jansen, Tate, Duncan, and Leggett (1995) conducted a study on American television's portrayals of race, ethnicity, and nationality in international athletic events. The study found that personal segments with Chinese athletes on American television centered on their machine-like, precise performance and industrious training practice, and the commentators often praise Chinese athletes' hardworking ethic (Sabo et al., 1995).

In addition to the positive representations of Chinese in American television and newspapers, representations of Chinese in American entertainment media are mixed but mostly positive. Hollywood movies' representations of Chinese have not changed much over decades (Wang, 2013).  Wang (2013) analyzed portrayals of Chinese women in four Hollywood movies made from the 1930s to the 2000s and found that Chinese women were consistently characterized as "sexy" and "mysterious" (p. 77). Hollywood movies portrayed Chinese people in general as "virtuous, industrious, and trustworthy" (Shah, 2003, p. 5).

The stereotypical portrayals of Chinese women as "China dolls"—as feminine, loyal, and submissive—by American entertainment media emerged after World War II and have continued for a long time (Larson, 2006). Similarly, Park, Gabbadon, and Chernin (2006) found that Chinese women in Hollywood movies (e.g., Rush Hour II) often were portrayed as either the "obedient oriental dolls readily fulfilling Americans' sexual desire and fantasies" (p. 163) or as desirable and independent dragon ladies, whereas Chinese men were depicted as good at kung Fu, respectable, and reasonable, as represented by Bruce Lee and Jackie Chan. Compared to African Americans, Latinos, and other racial groups, Chinese, as part of the larger group of Asian Americans, are often portrayed as quiet, economically successful, and hardworking (Larson, 2006).

Previous studies on cultivation theory have shown that exposure to entertainment media is associated with construction of social reality (e.g., Zhu & Christie, 2009). For example, Zhu (2007) found that kung fu movies were sources of information that Americans used to formulate their perceptions about Chinese. Huang (2009) used both textual analysis and content analysis to analyze the depiction of Chinese from twelve Chinese movies trailers released in the United States. The study found that Chinese women are shown as sexual and submissive, while Chinese men are shown as action heroes. Exposure to those depictions will reinforce these stereotypes of Chinese for American audiences.

Therefore, in contrast to the way China is represented in American media, the American media coverage of Chinese people is relatively positive. Given the literature review, to better understand how American college students perceive Chinese and how these students' media use and perceived realism of media message influence their stereotypes of Chinese, I pose the following research questions and hypotheses:

RQ1.    What stereotypes do American college students have about Chinese?

H2.    College students' use of American media for information about Chinese is related to positive stereotypes about Chinese.

H3.    The more realistic American college students perceive media messages about Chinese to be, the more positive their stereotypes about Chinese will be.

RQ2.    How does perceived realism of media messages moderate the effects of American media on American college students' stereotypes of Chinese?

**Method**

A total of 320 undergraduate students enrolled in mass communication classes at a public university in the northeast United States participated in the study in 2009. College students were chosen for the current study for two reasons. First, college students are still under the influence of mass media in formulating their values and beliefs. Second, because they are young, college students will play an important role in various disciplines in the near future, so knowing their stereotypes of Chinese can improve our knowledge of how future interactions might be. Of course, the student sample is not a good representation of the larger population. However, previous studies have shown that a student sample is still applicable if researchers' primary interests are to test relationships between variables (Tan et al., 1997).

For their participation in this study, students were offered extra course credits as compensation. Of these, 18 students—those who were international students and those who chose the same answers for all the questions—were excluded from further analysis. The majority of the respondents were female ($n$ = 211), and only approximately 30% were male ($n$ = 91). The respondents' ages ranged from 18 to 29 years with an average age of 20 years (SD = 2.47). Of the 302 participants, 77.5% were Caucasian ($n$ = 235), 10.9% were African American ($n$ = 43), 4.3% were Asian American ($n$ = 13), 1% were Hispanic ($n$ = 3), and 5.9% identified themselves as *other* ($n$ = 18).

*Measures*

**Stereotypes of Chinese.** A semantic differential scale was used to measure stereotypes of Chinese, using 14 items adapted from previous studies (Pew Research Center, 2005; Smith, 1991; Tan, Zhang, Zhang, & Dalisay, 2009). These items, 14 dichotomous adjectives (e.g., "honest" and "dishonest"), were ranked on a scale from 1 to 7, with a higher number indicating more negative stereotypes about

Chinese. These items were then subjected to an exploratory factor analysis using principle-components extraction and varimax rotation to obtain a final solution. Three factors with eigenvalues of 1.00 or above emerged. Factor 1 comprised six items, "open-minded," "honest," "polite," "nonprejudiced," "generous," and "arrogant" (with this item reverse coded), which explained 27.35% of variance (α = .71) and was labeled as "Social Manners." Factor 2 comprised five items, "hardworking," "inventive," "good morals," "accountable," and "smart," which explained 11.4% of variance (α =. 74) and was labeled as "Work Ethics." Factor 3 comprised three items, "violent," "aggressive," and "corrupt," which explained 10.58% of variance (α =. 68) and was labeled as "Antisocial Personality."

**Media Use.** To measure the information sources used by American college students to form their stereotypes, respondents were asked, "How often have you used the following sources to know about Chinese in general?" and instructed to rank the information sources on a 7-point scale, with 1 meaning "never" and 7 meaning "very often." The information sources consisted of "American television news programs," "American entertainment programs other than movies," "American movies," "American newspapers," "American books," and "American magazines." This question was adapted from previous cross-cultural studies on media use and stereotypes (e.g., Tan, Dalisay, Zhang, Han, & Merchant, 2010). The six information sources were combined to form an American media-use index with the Cronbach's alpha value of .85.

**American News Media Use.** To measure American college students' use of American news media, respondents were asked, "How often have you used the 'American television news programs' and 'American newspapers' to know about China in general?" and instructed to rank these information sources on a 7-point scale, with 1 meaning "never" and 7 meaning "very often." These two information sources were identified from previous international studies on media use and stereotypes (e.g., Tan et al., 2010). The two items were combined to form a news-media-use index with the Cronbach's alpha value of .78.

**Perceived Realism.** To measure perceived realism of media messages, respondents were asked to evaluate the accuracy (how accurate the media representation of Chinese is compared to reality), realism (how realistic the media representation of Chinese is to real life), and believability (how trustworthy is the media's representation of Chinese) of American TV, American movies, American newspapers, and American magazines on a 7-point scale, with higher scores indicating perception of more realistic media messages. Eighteen items were combined to form a perceived-realism index (α =. 89).

**Perceived Relationship Between China and the United States.** Since media coverage of China has centered on the relationship between the United States and China, this study investigates how American college students perceive China in relation to the United States. To do so, students were asked to measure two statements, "Chinese is a potential threat to the United States" and "China is a potential partner to the United States" on a scale from 1 to 7, with 1 meaning "strongly disagree" and 7 meaning "strongly agree". These two statements were combined to form one scale (α =. 87)

**Demographics.** Respondents were asked their age, gender, and ethnicity and whether they had ever traveled to mainland China.

## Results

Hypothesis 1 predicts a relationship between the use of American news media and the perception of China as a potential threat to the United States. A hierarchical regression analysis was run to test the hypothesis. Demographic questions (age, gender, ethnicity, and visit to China) were entered in the first block, and use of American news media was entered into the second block.. The results supported the hypothesis ($R^2$ = .07, $p$ < .001). There was a positive association between the use of American news media and the perception of China as a potential threat to the United States ($\beta$ = .22, $p$ < .001).

The first research question asked about American college students' stereotypes of Chinese. The means and standard deviations for stereotypes of Chinese people are shown in Table 1.

### Table 1. American College Students' Stereotypes of Chinese.

| Stereotype | Mean | Standard Deviation |
|---|---|---|
| Arrogant | 3.91 | 1.25 |
| Violent | 3.47 | 1.14 |
| Aggressive | 3.58 | 1.23 |
| Corrupt | 3.86 | 1.10 |
| Open-minded | 3.86 | 1.27 |
| Hardworking | 1.93 | 1.04 |
| Honest | 3.24 | 1.15 |
| Inventive | 2.47 | 1.16 |
| Good morals | 2.72 | 1.15 |
| Accountable | 2.90 | 1.17 |
| Polite | 3.24 | 1.92 |
| Nonprejudiced | 4.29 | 1.22 |
| Smart | 1.90 | 1.05 |
| Generous | 3.54 | 1.25 |

As shown in the Table 1, American college students' stereotypes of Chinese were mixed (7 = most negative, 1 = most positive). The most negative stereotypes—those that received the highest scores—were that Chinese people were prejudiced ($M$ = 4.29, $SD$ = 1.22), arrogant ($M$ = 2.91, $SD$ = 1.25), narrow-minded ($M$ = 3.86, $SD$ = 1.27), corrupt ($M$ = 3.86, $SD$ = 1.10), and not generous ($M$ = 3.54, $SD$ = 1.25). The most positive stereotypes—those with the lowest scores—were that Chinese people were smart ($M$ = 1.90, $SD$ = 1.05), hardworking ($M$= 1.93, $SD$ = 1.04), inventive ($M$ = 2.47, $SD$ = 1.16), and having good morals ($M$ = 2.72, $SD$ = 1.15).

Hypothesis 2, Hypothesis 3, and Research Question 2 dealt with how media use and perceived realism influence American college students' stereotypes of Chinese. A hierarchical regression analysis was conducted to test these. Three Chinese stereotype factors were regressed on three sets of predictors. Demographic questions (age, gender, ethnicity, and visit to China) were entered in the first block, and the main effect factors (media use and perceived realism) were entered in the second block. The possible two-way interaction factors, including media use by perceived realism, were entered in the third block.

Based on the regression results, the model significantly predicted all three stereotype factors. Specifically, two variables that predicted Chinese stereotype Factor 1 (open-minded, honest, polite, nonprejudiced, generous, and arrogant) ($R^2$ = .32, $p$ < .001) were perceived realism ($\beta$ = −.43, $p$ < .02) and the interaction between media use and perceived realism ($\beta$ = .69, $p$ < .001) (see Figure 1). Chinese stereotype Factor 2 (hardworking, inventive, good morals, accountable, and smart) was predicted by the interaction between media use and perceived realism ($R^2$ = .11, $p$ < .001, $\beta$ = .15, $p$ < .04) (see Figure 2). Factor 3 (violent, aggressive, and corrupt) was also significantly predicted by the regression model ($R^2$ = .08, $p$ < .005). The significant predictors were perceived realism ($\beta$ = −.44, $p$ < .04) and the interaction between media use and perceived realism ($\beta$ = .20, $p$ < .01) (see Figure 3). Media use alone did not predict American college students' perceptions about Chinese people, whereas perceived realism and the interaction between media use and perceived realism were significant predictors. Therefore, Hypothesis 2 is not supported by the data, and Hypothesis 3 is supported. Perceived realism moderates the effects of media use on the stereotypes of Chinese that American college students hold.
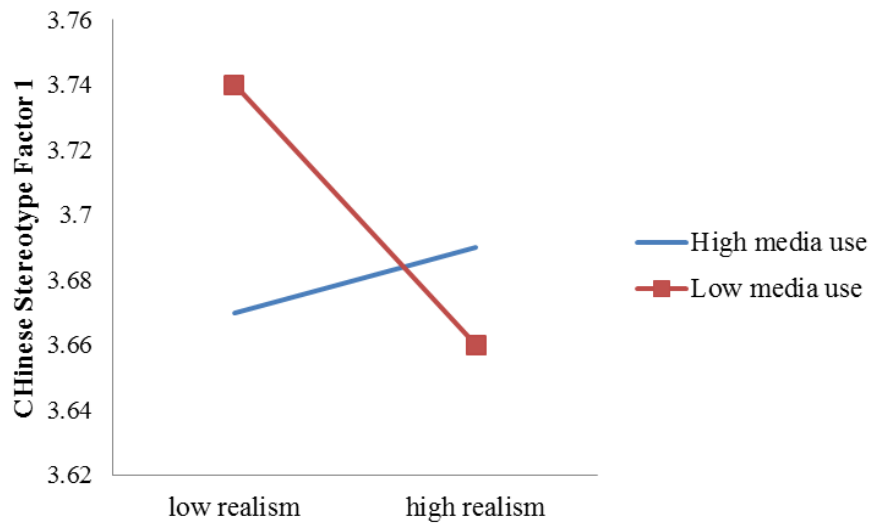
**Figure 1. Interaction effect between media use
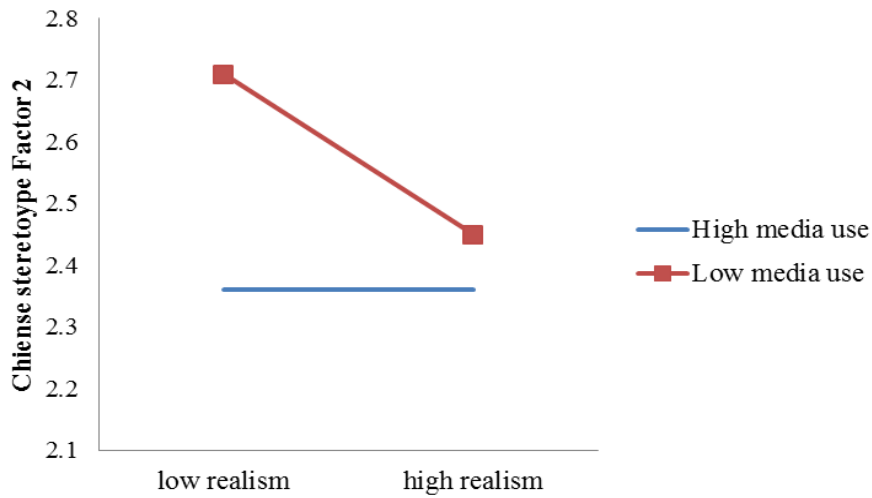and perceived realism on Chinese stereotype Factor 1.**



**Figure 2. Interaction effect between media use
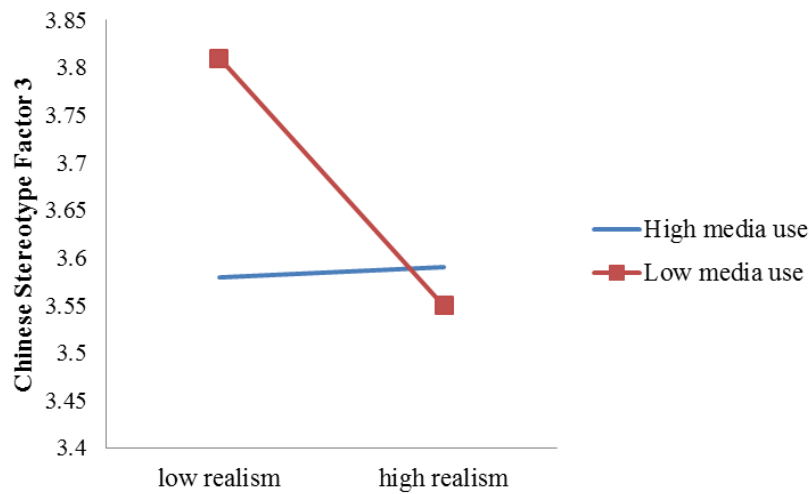and perceived realism on Chinese stereotype Factor 2.**

*Figure 3. Interaction effect between media use
and perceived realism on Chinese stereotype Factor 3.*

**Discussion**

        This study aimed to investigate American college students' stereotypes of Chinese and how media use and perceived realism influence those stereotypes. The results suggest that American college students have mixed stereotypes about Chinese in general. Specifically, the most positive stereotypes they had about Chinese people were that they are "smart" and "hardworking," which are consistent with how American media portray Chinese athletes in international athletic events (Sabo et al., 1995). Interestingly, these two stereotypes are also the dominant characteristics American use to represent Asian Americans (Paek & Shah, 2003). In the United States, Asians and Asian Americans are interchangeable categories, and American media generally lump these groups together (Ono & Pham, 2009), a points that are consistent with a survey by the Committee of 100 (2009) published a report about Chinese and Asian Americans showing that the majority of Americans cannot tell the difference between Chinese and other Asians. Therefore, it is not surprising that American college students share the same positive stereotypes about Chinese as about Asian Americans. This study replicated the survey results by the Committee of 100, which found that 83% of Americans have favorable attitudes toward Chinese people.

        The most negative perception American college students had about Chinese was that they are "prejudiced." This might be due to American media coverage about Tibetan and Xinjiang issues during the data collection period. The domestic conflicts in China between those of Han, Tibetan, and Uyghur ethnicities in years 2008 and 2009 attracted international attention, and conflicts imply intolerance and inequality, which explains, to some extent, why American college students perceived Chinese people as being prejudiced.

In addition, the positive stereotypes that American college students have about Chinese people might be linked to the idea that China is a potential threat to the United States. This study found that use of American news media for information about China is related to the perception of China as a potential threat to the United States. China's emergence as an economic power has raised many concerns. American college students might perceive Chinese people's hardworking ethic and intelligence as factors leading to China's fast economic development and might perceive Chinese people's inventiveness and aggressiveness as contributing to their ambition to take the lead in the world affairs. Positive stereotypes do not always indicate positive feelings. Ho and Jackson (2001) found that Americans have positive stereotypes about Asian Americans but that they also believe Asian Americans to pose an economic and social threat to other ethnic groups and to evoke feelings of deprivation in other groups. Therefore, positive stereotypes of Chinese people might help to explain why China is perceived as a threat.

Perceiving another country as a threat will affect a government's behavior and policies and could negatively influence the two countries' bilateral relationship. This study sampled students majoring in mass communications, who will be future media practitioners. It is inappropriate if they continue to perpetuate such a stereotype in their work and, therefore, it is important that mass media deliver a more balanced representation of China and cover stories about the cooperation between China and the United States more.

This study also investigated whether the way American college students process media information influences their stereotypes of Chinese and found that students' perceived realism of media messages was an important factor predicting stereotypes. However, use of American media itself cannot predict stereotypes. This is consistent with previous studies. For example, Tan and colleagues (1997) found that the overall television viewing did not predict the stereotyping of Native Americans. The present study shows that the degree to which individuals perceived media messages as realistic did predict their stereotypes of Chinese—the more realistic American college students perceived media information to be, the more positive their stereotypes about Chinese were.

This study also identified the effects of the interaction between media use and perceived realism. American college students with little exposure to media about Chinese had more positive stereotypes about Chinese when they perceived media messages as highly realistic. On the other hand, perceived realism did not affect stereotypes of Chinese for American college students heavily exposed to media messages. The findings indicate that stereotypes are the effects of a combination of media use and individuals' perceptions of the realism of media messages. Heavy media users' stereotypes about Chinese are not affected by the level of perceived realism. In other words, heavy media users who perceived media messages as unrealistic had the same stereotypes of Chinese as those who perceived media messages as realistic. This is related to Gerbner's argument about media's function of mainstreaming (Gerbner et al., 2002), which poses that frequent exposure to mass media cultivates beliefs, values, and perceptions consistent with media representations. The current study supports this notion by showing that when individuals are constantly exposed to media messages, mass media impact them in the same way regardless of information-processing factors such as perceived realism.

However, perceived realism can moderate media effects on stereotypes only when media are not heavily used for information gathering. In other words, when people use media less frequently to gather information about a group of people, the more realistic they perceive media messages, the more consistent their stereotypes about the group will be with media portrayals. This finding adds to our understanding of cultivation theory by showing that media's mainstreaming function takes effect only among heavy media users.

This has some theoretical implications. Specifically, it suggests the necessity of modifying existing theoretical frameworks such as cultivation theory and social cognitive theory to include information-processing factors (e.g., perceived realism) in media-effects studies. This will help us better understand why mass media have different effects on different individuals, especially when individuals are not heavily exposed to a particular type of media messages. Future studies should incorporate more information-processing factors, such as involvement, to formulate a comprehensive theoretical framework to better understand media and stereotype-formation processes. Based on the results of the present study, perceived realism is a better predictor of media effects on stereotyping than overall media exposure. However, today, many TV shows claim to be based on true stories, and scripted reality shows are increasingly popular. Although the ways media stories and news messages are constructed do not accurately reflect reality, such TV and programs increase perceptions of realism and might yield greater media effects even in those with little exposure to them.

Despite the interesting findings of this study, it has several limitations. First, respondents of the study were students from one university in the United States and drawn from a convenience sampling instead of a random sampling, thus limiting the generalizability of the findings across the target population nationwide. Future studies should replicate the current study by randomly surveying college students across the country. Furthermore, it would also be interesting to explore how Americans in general, especially individuals of various age groups and racial and educational backgrounds outside of a college setting, perceive Chinese and China. After all, with more experiences and possible direct contact with Chinese, individuals' perception of Chinese might be different. Second, the study used self-reporting. Even though self-reporting is generally considered reliable and has been widely used in stereotyping research (e.g., Tan et al., 2010), this quantitative method definitely has some limitations. Future studies should also use qualitative research methods such as interview, content analysis of open-ended questions, or focus groups to supplement the self-reported to help us understand why and how American college students hold such stereotypes about Chinese. Trait sorting and rating might give us richer data on cultural stereotypes of Chinese. Finally, this study did not explore how college students' direct experience with Chinese people in the United States might impact their stereotypes of Chinese. This is because the current study was not aimed to establish a model determining all the factors leading to stereotypes of Chinese. However, individuals learn stereotypes from both mass media and direct experience with people from different groups. Future studies should establish and test a stereotype-formation model based on a comprehensive theoretical framework such as information-processing theory, social cognitive theory, or contact theory. The model should include media use, information-processing factors, and the frequency and valence of personal experience to examine how stereotypes are formulated.

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