A Cognitive Processing Model of Information Source Use and Stereotyping: African-American Stereotypes in South Korea

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This study proposes a cognitive processing model to explain that stereotypes are the result of a two-way interaction between receiver evaluation of the valence of accessed information from the media, and receiver evaluation of the realism and believability of the information. This model is applied to analyze American media use and stereotyping of African-Americans among 378 high school students in South Korea. Findings partially support the proposed model: positive media portrayals perceived to be real and believable result in positive stereotyping, while negative media portrayals perceived to be real and believable result in negative stereotyping. Respondents perceived that messages disseminated by the American media were somewhat realistic and believable, and that American media portray African-Americans negatively.

Research suggests that the media can form and reinforce stereotypes of African-Americans in the United States (e.g., Appiah, 2002; Dixon, 2006; Oliver, 1999; Rada, 2000; Tan, Fujioka, & Tan, 2000). Supporting the U.S. findings, a recent study...
Tan, Zhang, Zhang, & Dalisay, 2009) showed that Chinese high school students’ use of American media leads to negative stereotyping of African-Americans. There are no recent studies that investigate whether foreign audiences’ exposure to American media influence their perceptions of African-Americans or any other American minority racial group. This gap in the literature is worth noting, considering that media audiences abroad increasingly are exposed to American media via new communication technologies (Internet World Stats, 2008; Tan et al., 2009), and that more American racial minorities, particularly African-Africans, are portrayed in American news and entertainment (Dates & Stroman, 2001). With amplified globalization of business, education, and diplomacy (Friedman, 2006; Gerdes, 2006), and the increased participation of African-Americans and other American racial minorities in U.S. government and diplomacy, foreign populations increasingly interact with American racial minorities. It is important to understand how American racial minorities are perceived in foreign countries and how those perceptions are formed.

The present study explores information source use and stereotyping of African-Americans among high school students in South Korea. A cognitive processing model to explain how receiver evaluations of information might influence stereotyping is proposed. A preliminary test of a general prediction that stereotypes are the result of receiver evaluations of the valence of portrayals and the believability and realism of the portrayals, is provided.

The study examines high school students in a country that figured prominently in U.S. foreign policy and diplomacy, and developed into one of the world’s largest economies (World Bank, 2008). Compared with college students and other adults, high school students are at an earlier stage of socialization (i.e., more likely to be “novices”) and more susceptible to media influence (Austin & Freeman, 1997). South Korean high school students also have limited direct contact with African-Americans and can likely form impressions of African-Americans vicariously from the media.

**Stereotypes and Cognitive Processing**

Most definitions ascribe cognitive and affective dimensions to stereotypes (Schneider, 2004; Snyder & Miene, 1994). Cognitively, stereotypes are oversimplified and over-generalized beliefs about other groups that are based on simplified information (Stangor & Schaller, 1996; Tajfel, 1981). Stereotypes can be positive, negative, or neutral, depending on the valence of information about the stereotyped group (e.g., Ashmore & Del Boca, 1981; Schneider, 2004). Most theories of stereotype formation explain stereotypes as resulting from the frequency and valence of incoming information (e.g., Stangor & Schaller, 1996). Examples are schema theory (Snyder & Miene, 1994), group prototype theory (Fyock & Stangor, 1994), and exemplar theory (Stangor & Schaller, 1996). According to these theories, and considering limited human capacity to absorb and process incoming information
(e.g., Lang, 2000; Lang & Friestad, 1993), stereotypes are formed after incoming information is sorted and organized into simplified cognitive molds to describe other groups. A common heuristic is to base a group characterization (stereotyping) on the valence of information (e.g., Gilbert & Hixon, 1991). Exposure to positive information (e.g., associating a group with traits valued in the receiver's culture) leads to positive stereotypes; exposure to negative information leads to negative stereotypes; exposure to mixed information leads to mixed stereotypes. Since most information environments include positive and negative information, some theories, most notably from the communication fields, posit that the preponderance of images (whether positive or negative) measured by frequency of “exposure” will determine receiver perceptions of the real world, including stereotypes of other groups (e.g., Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002).

The study proposes that stereotyping is more accurately and fully explained when the perceived valence, realism, and believability of incoming information are accounted. Rather than main effects (e.g., positive information leads to positive stereotypes; frequency of exposure leads to a stereotype), it is proposed that stereotypes are the result of a two-way interaction between receiver evaluation of the valence of accessed information (positive or negative with regard to the stereotyped group) and receiver evaluation of the realism and believability of the information. Specifically, it is predicted that information perceived to be positive will lead to positive stereotypes when the information is also perceived as real and believable; information perceived to be negative will lead to negative stereotypes when it is perceived as real and believable. This analysis is applied to the specific case of American media use and stereotyping of African-Americans among South Korean high school students.

**Stereotypes, Media and Information**

Stereotypes of out-groups often are acquired through direct contact with out-group members (e.g., Pettigrew, 1998). When opportunities for direct contact are lacking, the media serve as important agents in the formation of stereotypes (e.g., Appiah, 2002; Dixon, 2006; Fujioka, 1999; Oliver, 1999; Rada, 2000). Cultivation theory suggests that there is a direct correlation between the media’s portrayals of social groups and audiences’ perceptions (Gerbner et al., 2002). Similarly, Bandura’s (2002) social cognitive theory, and its concept of vicarious learning, explains that stereotypes of racial groups can be learned through observing media portrayals. The extent to which audience members are influenced by media content is determined in part by the extent to which they perceive that such contents are real (e.g., Busselle, 2001; Dominick & Greenberg, 1972) and believable (e.g., Cappella, Lerman, Romanant, & Baruh, 2005; Gibbons, Lukowski, & Walker, 2005). Audiences are more likely to learn from media portrayals that are perceived to be real and believable because such portrayals increase audiences’ cognitive involvement (Gibbons et al., 2005; Rubin & Perse, 1987) and self-efficacy (Austin & Freeman, 1997).
Valence

Valence is a receiver’s evaluation of an observed event as “positive” or “negative.” Events depicting behaviors that are valued by the receiver are judged positively, while events not valued are judged negatively (Rokeach, 1968). With regard to the relationship between intergroup contact and racial perceptions, Pettigrew (1998) suggested that it is not merely the frequency of personal contact with outgroup members, but rather the perceived valence of such contact (i.e., whether the contact experience is positive or negative) that predicts the formation of outgroup stereotypes. There is evidence that this is also the case for vicarious contact experiences that are an outcome of media exposure and that the valence (positive or negative) of TV portrayals, rather than mere frequency of exposure, leads to stereotyping (Fujioka, 1999; Schiappa, Gregg, & Hewes, 2005). In many foreign countries, where personal contact with Americans is infrequent, the media may play a powerful role in influencing stereotypes of Americans (Tan et al., 2009). Vicariously learning stereotypes through media exposure is facilitated when portrayals of Americans—particularly, American minorities—are clearly valenced (positive or negative traits are depicted) and when such portrayals are considered by the receiver to be realistic and believable.

African-American and Out-Group Stereotypes in Korea

In December 2008, the number of foreign residents in South Korea was just over 1 million, including more than 200,000 illegal residents (The Ministry of Justice, 2008). Although Korea remained a racially homogeneous country for a long time, it experienced a massive influx of foreign labor workers since the 1980s (Han, 2007). This increased number of foreign residents prompted some Korean scholars to investigate Koreans’ perceptions, attitudes, and stereotypes toward foreigners. Cha and Choi (1992) surveyed college students in Seoul about their perceptions of people from 11 countries. Their respondents reported positive and negative stereotypes of White Americans, describing them as “liberal (open-minded),” “individualistic,” “selfish,” “practical,” and “arrogant.” Comparing their results with those of a similar study conducted by Cha (1992), the authors concluded that Korean college students’ attitudes toward White Americans were predominantly positive from the 1960s to the 1980s. In contrast to positive perceptions of White Americans, Cha and Choi (1992) found that their respondents used negative descriptions of African-Americans, referring to them as “violent,” “lazy,” “sloppy,” “stupid,” and “having a sense of inferiority.”

Jang (2001) surveyed 1,288 college students in South Korea about their perceptions of social distance and national/ethnic preferences. Respondents rated Western Europeans and White Americans as the most “positive” groups, and African-Americans and Blacks living in Africa as the most “negative.” Female students reported more favorable attitudes toward interracial marriage than male students, and considered White Americans and Western Europeans as their most “ideal” marriage partners.
Kim and Oh (1999) compared the perceptions of Americans held by both South Korean college students and non-college students. They found that Korean college students held more negative attitudes toward Americans, and speculated that these attitudes were attributed to anti-Americanism, a dominant ideology among Korean college students in the 1980s.

Hwang, Kim, Lee, Choi, and Lee (2007) conducted a national survey of 1,203 adults in South Korea to investigate perceptions and attitudes toward foreigners and immigrants (Chinese, Japanese, South East Asians, Americans, South Asians, Mongolians, Koreans from China, and North Korean refugees living in South Korea). Hwang and colleagues found that younger and highly educated Koreans held positive perceptions of foreigners while older Koreans (over 60-years-old) held negative perceptions. Americans were ranked as the most favorable foreigners, and Chinese, South Asians, and Mongolians were ranked as the least favorable. Respondents rated Americans most positively in almost all dimensions (affection, preference, power, impact, social distance) and rated South Asians, Mongolians, and Chinese least positively. Congruent with Kim and Oh’s (1999) findings, South Koreans were reluctant to accept foreigners as Korean citizens, as family members, and as marriage partners. However, South Koreans accepted foreigners as their friends, neighbors, and co-workers. Hwang et al. (2007) like other researchers cited above, assume that all Americans are White, without examining and making clear the distinction between White and non-White Americans (e.g., African-Americans).

U.S. Media Portrayals of African-Americans

African-Americans continue to be negatively portrayed by the American media (e.g., Dixon & Linz, 2000; Entman, 1994; Greenberg, Mastro, & Brand, 2002). Although African-Americans had more presence in the U.S. media than any other racial minority group in the past decade, they continue to be overrepresented as criminals and criminal suspects (e.g., Dixon & Linz, 2000), and underrepresented as professionals (Greenberg et al., 2002). Studies of American audiences have shown a link between exposure to such portrayals and negative stereotyping of African-Americans (e.g., Dixon, 2006; Oliver, 1999; Rada, 2000; Tan et al., 2000). Although stereotypes of African-Americans in the United States improved through the years, Madon et al. (2001) conclude that African-Americans are still perceived negatively in comparison to White Americans.

American Images Abroad

There is considerable interest in American images abroad and speculation, with limited direct testing, on possible influences on these images. The most recent Pew (2009) worldwide surveys show a slight increase in positive valence of American images in a number of countries after the election of President Obama, although the images are still predominantly negative. Defleur and Defleur (2003) found mixed stereotypes of Americans in 12 countries which they attributed to mixed images of
Americans in the media. Tan, Zhang, Zhang, and Dalisay (2007) found that stereotypes of Americans held by Chinese high school students were influenced more by print media and personal sources (e.g., teachers) than by American television and movies.

**U.S. Media in Korea**

U.S. media played an influential role in the culture of South Korea. Even before it opened its markets to international media in 1999, South Korea imported 26–40 U.S.-made movies each year between 1971 and 1985 (Messaris & Woo, 1991). U.S.-produced TV programs were available on Korean TV stations and American-owned TV broadcasting stations such as the American Forces Korean Network, which started its operations in 1957. The United States continues to be the largest exporter of movies to South Korea. In 1994, American films had over a million viewers, and total TV program imports increased from 8,074 units in 1994 to 12,921 units in 1995, mostly from the United States. (Ha & Yang, 2002). In 2003, TV programs from the United States accounted for 77.8% of all imported foreign programs in South Korea (Shim, 2006; Yim, 2002; Yoon, 1997).

Research is limited on the effects of U.S.-imported media on the perceptions of America held by South Koreans. Messaris and Woo (1991) interviewed South Korean immigrants in Philadelphia about their pre-immigration experiences with images of the United States in movies, TV programs, and magazines. Respondents reported that media images led them to immigrate to the United States. The American image they remembered was of a dreamland, beautiful landscape, luxurious and extravagant lifestyle, beautiful and fashionable women, quality education, justice, ethics, rich families, and an ideal country for laborers. A primary motive for immigration was to gain political freedom with fewer traditional and social constraints. The more educated respondents endorsed social relationships with people in the United States, and less educated respondents found the wealth and economics in the United States attractive.

**A Cognitive Processing Model**

The basic premise of this model is that receiver evaluations of information are a more powerful explanation of media influence on stereotypes than frequency of exposure to information. This premise is based on the fundamental assumption that human beings are rational and seek to maximize cognitive rewards by utilizing available information (Bandura, 2002; Elasmar, 2003). The de-emphasis in the model on frequency of exposure is based on previous research indicating that even brief and “one-shot” exposures to information may alter stereotypical beliefs, attitudes, and behaviors (e.g., Appiah, 2002; Dalisay & Tan, 2009; Oliver, 1999). Personal contact research shows that even a single encounter with a member of another group can lead to stereotyping (e.g., Pettigrew, 1998). What matters, at
least in stereotype development, is not how much information one has but how one evaluates the information.

The model focuses on information valence and realism/believability, dimensions of information evaluation that increase cognitive involvement, identification, credibility and self-efficacy (e.g., Austin & Freeman, 1997; Gibbons et al., 2005; Rubin & Perse, 1987). The study predicts that the influence of information on stereotypes is an interaction between evaluation of the valence of the information (positive or negative portrayals), and evaluation of the realism/believability of the portrayals. Figure 1 shows the expected interaction effect.

**Hypothesis**

The following hypothesis regarding the potential influence of American media on stereotypes of African-Americans in South Korea is tested.

\( H_1: \) The valence of stereotypes of African-Americans among South Korean high school students will depend on, a) the perceived valence of portrayals of African-Americans in American media used as sources of information, and b) the extent to which these portrayals are perceived to be realistic and believable. This interaction hypothesis is illustrated in Figure 1.

Figure 1 reveals that perceived negative portrayals lead to negative stereotypes when these portrayals are perceived to be real and believable. Perceived positive portrayals will lead to positive stereotypes when these portrayals are perceived to be real and believable.
Method

The study’s purposive sample comprised of 378 high school students from three high schools in South Korea, chosen to include men and women, and rural and urban students. Students were recruited from one co-ed high school in Young-dong/Chungbook province, a rural area (n = 149); one women’s high school (n = 119) and one men’s high school (n = 110), both in Incheon city, a metropolitan area. Because t-tests found no differences across areas for the survey items, the data from the three samples were merged for final analysis. Purposive sampling was the only feasible method of obtaining data from high school students in Korea. Lists of high school students are extremely difficult to obtain. When available, the release of these lists requires approvals by numerous school and community authorities. Students selected randomly from lists would be very difficult to reach.

Procedure

Questionnaires were developed in English and translated to Korean using back translation (van de Vijver & Leung, 1997). Han, a Korean native and co-author of this article, collected data for this study, traveled to South Korea between May–June 2008, visited three high schools, and distributed the self-administered questionnaires to student respondents during their class time. Students were provided free ballpoint pens and candies as incentives to participate in the survey. A consent form, approved by a human subjects review board in the United States, informed the students that participation was voluntary. Students also were told in a written consent form, that the purpose of the study is “to ask you about your use of the mass media and about your perceptions of Americans, American culture, Korea and Korean culture. The information you give us will be used in classes in the U.S., and will be written up for publication in research journals.” The consent form assured confidentiality. In addition to the variables used in this study, other measures mentioned in the instructions were included. Students submitted completed questionnaires to the researcher, and return rates were close to 100%. The researcher collected the questionnaires and brought them back to the United States. Data were coded, entered into, and analyzed using, SPSS version 16.0.

Measures

Stereotypes of African-Americans.

A 7-point, 14-item semantic differential scale adapted from Smith (1991) and Tan et al. (2000) was used to measure stereotypes of African-Americans. This scale included 14 bipolar adjectives (e.g., Violent/Not Violent, Polite/Not Polite), in which negative poles were scored “1,” and positive poles were scored “7”. Exploratory
factor analysis identified four factors. Factor 1 included 5 items, “hardworking,” “honest,” “good morals,” “polite,” and “generous,” which explained 27.8% of the total variance \((M = 4.38, SD = .98, \alpha = .78)\). Factor 1 was called “Work Ethic” since the adjectives are traits that would likely lead to success in the workplace. Factor 2 included 3 items, “arrogant,” “violent,” and “aggressive,” which explained 14.5% of the variance \((M = 5.17, SD = 1.05, \alpha = .71)\). Factor 2 was named “Aggression,” to describe a propensity to aggressive behavior. Factor 3 included 3 items, “not prejudiced,” “humorous,” and “hedonic,” explained 11.4% of the variance \((M = 3.12, SD = 1.05, \alpha = .64)\). Factor 3 was called “Likability” to describe the pleasant side to a person, or traits that would lead one to like him/her. Factor 4, labeled “Attractiveness” included 3 items, “intelligent,” “beautiful,” and “sloppy,” which explained 7.3% of the variance \((M = 3.29, SD = .93, \alpha = .60)\). The adjectives “intelligent,” “beautiful,” and “sloppy,” could lead to attraction.

**Respondents’ Perceptions of Valence of Stereotypes.**

Respondents were asked to rate how positive or negative each stereotype trait was to them on a 7-point Likert scale \((1 = \text{very negative}, 7 = \text{very positive})\). These ratings came at the end of the questionnaire and were separated from the semantic differential scale measuring stereotypes of African-Americans (in the first part of the questionnaire) by the media use and media evaluation measures. Stereotype traits that were rated by all respondents (mean score) to be at least 4.0 were defined as “positive.” Thus, “hedonic” was rated as positive, and “arrogant” was rated negative.

**Media Sources.**

Respondents were asked to indicate how often they used specific media sources to “know about Americans living in the United States.” The information sources included American television, movies, newspapers, and magazines. Responses were measured on a 4-point Likert scale \((1 = \text{not very often}, 4 = \text{very often})\). The 4 items measuring media use were combined to form a single index \((M = 1.94, SD = .57, \alpha = .68)\).

**Valence of African-American Portrayals in the Media.**

Respondents were asked to indicate how they felt American media portrayed African-Americans along bi-polar adjectives \((\text{bad/good, not likable/likable, not attractive/attractive})\). Responses were measured along a 7-point semantic differential scale, where a higher score indicated positive portrayals. The information sources included American TV, movies, newspapers, and magazines. The 12 items (3 items for each of the 4 media sources) were combined to form an index of media valence \((M = 3.37, SD = 1.26, \alpha = .95)\).
Realism and Believability.

Respondents were asked to rate the realism (“how true to life?”) and believability (“whether the information was believable”) of the information about Americans they received from specific media sources. Responses were measured along a 7-point Likert scale, where a higher score indicated that the sources were perceived to be more real and believable. The information sources included American TV, movies, newspapers, and magazines. Four items measured realism of the sources and 4 items measured believability. The correlation between the believability and realism measures was .85. To prevent multicollinearity in the regression analyses (Cohen, Cohen, West, & Aiken, 2002), these two constructs were combined to form a single, 8-item index of realism/believability of American media ($M = 3.79$, $SD = 1.37$, $\alpha = .90$).

Interest.

Respondents were asked how interested they were in knowing about African-Americans. Responses were measured on a 4-point Likert scale ($1 = \text{not at all interested}$, $4 = \text{very interested}$). The mean score of interest was $2.12$ ($SD = .88$).

Demographics.

Respondents were asked to provide demographic information, which included their age, gender, family household income, and whether they had ever traveled to the United States.

Results

Stereotypes of African-Americans

South Korean high school students’ stereotypes of African-Americans are shown in Table 1. On a 7-point scale ($1 = \text{most negative}$, $7 = \text{most positive}$), half of the items had means greater than 4, while the other half had means less than 4. This indicates that their stereotypes were mixed, with half being positive (means greater than 4) and half negative (means less than 4). Among the positive stereotypes, African-Americans were regarded as humorous ($M = 5.42$, $SD = 1.25$), hedonic ($M = 5.35$, $SD = 1.26$), hardworking ($M = 4.88$, $SD = 1.44$), not prejudiced ($M = 4.79$, $SD = 1.58$), generous ($M = 4.44$, $SD = 1.27$), honest ($M = 4.30$, $SD = 1.29$), and polite ($M = 4.23$, $SD = 1.35$). Among the negative stereotypes, African-Americans were regarded as violent ($M = 2.65$, $SD = 1.28$), aggressive ($M = 2.80$, $SD = 1.28$), sloppy ($M = 3.09$, $SD = 1.21$), not beautiful ($M = 3.30$, $SD = 1.32$), not intelligent ($M = 3.49$, $SD = 1.24$), arrogant ($M = 3.90$, $SD = 1.42$), and having poor morals ($M = 3.95$, $SD = 1.31$).
Table 1
African-American Stereotypes by South Korean High School Students

<table>
<thead>
<tr>
<th>African-American</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humorous</td>
<td>5.42</td>
<td>1.25</td>
</tr>
<tr>
<td>Hedonic</td>
<td>5.35</td>
<td>1.26</td>
</tr>
<tr>
<td>Hardworking</td>
<td>4.88</td>
<td>1.44</td>
</tr>
<tr>
<td>Not prejudiced</td>
<td>4.79</td>
<td>1.58</td>
</tr>
<tr>
<td>Generous</td>
<td>4.44</td>
<td>1.27</td>
</tr>
<tr>
<td>Honest</td>
<td>4.30</td>
<td>1.29</td>
</tr>
<tr>
<td>Polite</td>
<td>4.23</td>
<td>1.35</td>
</tr>
<tr>
<td>Good morals</td>
<td>3.95</td>
<td>1.31</td>
</tr>
<tr>
<td>Arrogant</td>
<td>3.90</td>
<td>1.42</td>
</tr>
<tr>
<td>Not intelligent</td>
<td>3.49</td>
<td>1.24</td>
</tr>
<tr>
<td>Not beautiful</td>
<td>3.30</td>
<td>1.32</td>
</tr>
<tr>
<td>Sloppy</td>
<td>3.09</td>
<td>1.21</td>
</tr>
<tr>
<td>Aggressive</td>
<td>2.80</td>
<td>1.28</td>
</tr>
<tr>
<td>Violent</td>
<td>2.65</td>
<td>1.28</td>
</tr>
</tbody>
</table>

In addition to the semantic differential scales, respondents were asked to list the five adjectives that they thought were most descriptive of African-Americans. They could add adjectives that were not included in the semantic differential scales. The adjective most often mentioned was “athletic,” followed in descending order by “passionate,” “open-minded,” “violent,” and “aggressive.”

Media Use by South Korean Students

Respondents averaged 1.88 in American media use on a 4-point scale (1 = almost never, 4 = very often) (see Table 2), indicating that they didn’t use American media

Table 2
Media Use by South Korean High School Students

<table>
<thead>
<tr>
<th>American Media</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>American movies</td>
<td>2.88</td>
<td>.84</td>
</tr>
<tr>
<td>American TV</td>
<td>1.98</td>
<td>.96</td>
</tr>
<tr>
<td>American books</td>
<td>1.70</td>
<td>.78</td>
</tr>
<tr>
<td>American magazines</td>
<td>1.50</td>
<td>.78</td>
</tr>
<tr>
<td>American newspapers</td>
<td>1.35</td>
<td>.60</td>
</tr>
</tbody>
</table>
often to learn about Americans. American movies were the most often used (M = 2.88, SD = .84), followed in descending order by TV (M = 1.98, SD = .96), books (M = 1.70, SD = .78), magazines (M = 1.50, SD = .78) and newspapers (M = 1.35, SD = .60).

**Realism, Believability and Valence of American Media**

Respondents evaluated American media as somewhat realistic (M = 3.89 SD = 1.38) and somewhat believable (M = 3.83, SD = 1.31) (see Table 3) (both means were slightly below the midpoint of the 7-point scale). They believed that African-Americans were portrayed somewhat negatively in American media (mean of 3.39 on 7-point scale).

**Tests of Hypothesis**

To test the hypothesis, each of the four African-American stereotype factors were hierarchically regressed on the following variables: demographics (block 1); interest in Americans and American culture (block 2); main effect variables (block 3: media use, believability, valence of media portrayals); two-way interactions (block 4: media use by valence; media use by perceived realism/believability; valence by perceived realism/believability); three-way interaction (block 5: media use by valence by perceived realism/believability).

Factors 1 (work ethic) and 4 (attractiveness) were significantly predicted by the regression models. Factor 1 (R-square = .13, p < .001) was significantly predicted by realism and believability of American media (β = −.12, p < .05), and the interaction of perceived valence and the perceived realism/believability of American media (β = .46, p < .05). The significant interaction supersedes the significant main effect for realism/believability, providing support for the hypothesis. The significant interaction is shown in Figure 2.

### Table 3

<table>
<thead>
<tr>
<th>Realism and Believability and Valence of American Media</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realism of American media</td>
<td>3.89</td>
<td>1.38</td>
</tr>
<tr>
<td>Believability of American media</td>
<td>3.83</td>
<td>1.31</td>
</tr>
<tr>
<td>Realism and believability combined</td>
<td>3.85</td>
<td>1.30</td>
</tr>
<tr>
<td>Valence of African-Americans in Am. print media</td>
<td>3.31</td>
<td>1.30</td>
</tr>
<tr>
<td>Valence of African-Americans in Am. visual media</td>
<td>3.34</td>
<td>1.37</td>
</tr>
<tr>
<td>Valence of African-Americans in Am. media in general</td>
<td>3.38</td>
<td>1.24</td>
</tr>
</tbody>
</table>
As Figure 2 shows, perceived positive media portrayals led to positive stereotypes (hard-working, honest, good morals, polite, generous) when these portrayals were perceived to be real/believable, and perceived negative portrayals led to negative stereotypes (lazy, dishonest, poor morals, rude, selfish) when these portrayals were perceived to be real/believable. The results for Factor 4 (attractiveness) are similar to the results for Factor 1. Factor 4 (\(R^2 = .12, p < .001\)) was significantly predicted by interest in American people and culture (\(\beta = .16, p < .01\)), use of American media (\(\beta = .47, p < .05\)), and the interaction between American media valence and realism/believability (\(\beta = .46, p = .05\)). These results show that interest in Americans and frequent use of American media led to positive stereotyping of African-Americans. The significant interaction between valence and realism/believability supports the hypothesis. As Figure 3 shows, perceived positive media portrayals of African-Americans led to positive stereotyping of African-Americans as beautiful, neat and intelligent when these media portrayals were perceived to be real/believable; perceived negative portrayals led to negative stereotyping of African-Americans as not beautiful, sloppy and not intelligent when media portrayals were believable. Real/believable and positive portrayals led to significantly more positive stereotypes (estimated mean = .20, \(p < .01\)) compared with real/believable and negative portrayals (estimated mean = -.3). The difference in stereotypes between positive and negative media portrayals was not significant (\(p = .12\)) when these portrayals were not perceived to be real/believable (see Figure 3).

**Discussion**

The results provide some support for a cognitive processing model of media effects on stereotyping. This model suggests that stereotyping may result from the
evaluation of information by receivers. This study focused on valence of media portrayals and perceived realism/believability of the media. Consistent with this model, it was found that stereotypes were the result of information evaluation rather than frequency of media use. The valence of stereotypes depended on an interaction between perceived valence and perceived realism/believability of media portrayals. Positive media portrayals that were perceived to be real and believable resulted in some positive stereotyping; negative media portrayals that were perceived to be real and believable resulted in some negative stereotyping. Positive and negative portrayals had no effect on stereotyping when they were not perceived to be real and believable.

As such, the major finding is that an interaction between perceived information valence and realism/believability influenced some stereotypes. Not all stereotypes were affected by the predicted interaction.

Descriptions of African-Americans in Factor 1 (work ethic: hardworking, honest, good morals, polite, generous) and Factor 4 (attractiveness: intelligent, beautiful, sloppy) were significantly predicted by the interaction between valence and realism/believability. These descriptions were also generally agreed upon by respondents (SDs, respectively, = .98 and .93). On the other hand, there was less agreement among respondents in their description of African-Americans in Factor 2 (aggression: arrogant, violent, aggressive; SD = 1.05) and Factor 3 (likability: not prejudiced, humorous, hedonic; SD = 1.05), which were not predicted by the interaction. Thus, one explanation for the differential effects of the interaction is that the influence of information valence and realism/believability on stereotypes was moderated by the degree of agreement among receivers on the stereotypes: the more agreement with the stereotype, the more likely an interaction effect. Based on this logic, it
may be speculated that the more likely the respondents endorsed stereotypical traits of African-Americans, the more likely the valence and realism/believability of African-American media portrayals influenced their stereotypes. This speculation draws upon the selective exposure hypothesis (Hart et al., 2009), which suggests that audiences, in an attempt to reduce cognitive dissonance, are more likely to attune to, and be affected by, media messages that are congruent with their existing predispositions. If greater levels of stereotype endorsement could in fact influence the interaction of information valence and realism/believability on stereotyping, this warrants further investigation.

Additionally, the results suggest that the predicted interaction effect between media valence and media realism/believability on stereotypes is moderated by the valence of stereotypes. Although regression analyses show that the interactions were significant and in the predicted directions for stereotype factors 1 and 4, real/believable and positive portrayals did not lead to significantly more positive stereotypes in Factor 1 compared with real/believable negative portrayals. For Factor 4, real/believable and positive portrayals led to significantly more positive stereotypes compared with real/believable negative portrayals. Factor 1 included the following traits: hardworking, honest, good morals, polite, generous. As Table 1 shows, respondents rated African-Americans positively on these traits with a mean of 4.38 on a 7-point scale (7 = most positive rating). Factor 4 included the following traits: beautiful, neat and intelligent. Respondents rated African-Americans negatively on these traits with a mean of 3.29. Thus, a ceiling effect may have been observed for Factor 1, suggesting that media valence and media realism/believability may not influence positive stereotype traits as much as negative stereotype traits. These results suggest that negative stereotypes are more susceptible to information and media influence. This supports previous research that has shown negative information can be more influential than positive information (e.g., Fiske, 1980), and the media can form and reinforce negative stereotypes of African-Americans (e.g., Appiah, 2002; Dixon, 2006; Oliver, 1999; Rada, 2000). Taking this into consideration, and because prior studies revealed that negative stereotypes of African-Americans may influence opinions on race-coded issues (Mastro & Kopacz, 2007; Tan et al., 2000) and prime racial attitudes during evaluations of a U.S. president (Valentino, 1999), future studies might consider investigating whether foreign residents’ stereotypes, and their exposure to negative portrayals of African-Americans could influence their opinions of the foreign policies of President Barrack Obama (the first African-American president of the United States) and his administration.

In summary, the findings suggest that the relationships between stereotyping and media portrayals are complex, cannot be adequately explained by main effects, and depend on the valence of traits used to describe the stereotyped group and receiver agreement on the stereotypes. This study revealed evidence that an interaction effect between perceived valence and perceived realism/believability of portrayals could influence Korean high school students’ stereotyping of African-Americans. As such, it is recommended that future research on the media’s influence on stereotyping consider examining the direct and indirect effects of these two variables on for-
Limitations

Some limitations should be noted when interpreting the results of this study. First, the preliminary test of the model does not adequately capture the wide range of information sources that the respondents might use to learn about African-Americans. Personal contact and use of the Internet, for example, were not measured, and the study’s measures of traditional media use did not include use of specific media genres (e.g., news and entertainment). These limitations underscore the importance of examining the effects of non-media sources of information, such as parents, teachers, peers, and personal contact with Americans in the United States, and the effects of Internet sources such as blogs and social media Web sites (e.g., Facebook). It is important to examine whether evaluations of the perceived valence and realism/believability of fictional versus non-fictional portrayals could have different effects on stereotyping.

Second, the sample was purposive, rather than random. To the extent possible, a more heterogeneous group of respondents, including students from more diverse high schools and individuals from the general population, is suggested for surveys.

Third, post-hoc explanations were used for differential support of the hypothesis, rather than data specifically generated to test for alternative explanations. It is recommended that researchers develop a set of competing hypothetical path models that integrate the effects of perceived valence and realism/believability on stereotyping, and test the fit of these competing models with more robust analytical techniques such as structural equation modeling (e.g., Mastro & Kopacz, 2007).

Fourth, the respondents may have been sensitized by the stereotype measures. It is possible that the study may be underestimating the degree to which they stereotyped African-Americans negatively. Future studies on the media’s effects on stereotypes ought to account for the influence of social desirability (see Crowne & Marlowe, 1960), and use alternative and multiple measures of stereotyping, to include less intrusive measures (e.g., Steele & Aronson, 1995).

Finally, regression analysis of survey results does not establish causal direction. Therefore, this study’s conclusion that media use leads to stereotyping should be tested in more rigorous designs, such as in experiments.

References


