Mask-Wearing Behavior During the COVID-19 Pandemic: A Cross-Cultural Comparison Between the United States and South Korea

Hyo Jung (Julie) Chang¹, Seoha Min², Hongjoo Woo³ and Jennifer Yurchisin⁴

¹Texas Tech University, ²California State Polytechnic University, ³Yonsei University, ⁴Catawba College

This study identified and compared factors that directly and indirectly influenced face mask-wearing in the United States and South Korea during the COVID-19 pandemic by applying the theory of reasoned action. The overall levels of attitudes and future mask-wearing behavioral intention were lower for United States than Korean participants (NUS = 150 and NSouth Korea = 150). Differences between the groups were noted in the impact of norms and background characteristics on attitudes and behavioral intention. Messages communicating the importance of wearing masks should be tailored to different cultures. Americans should be encouraged to try wearing masks on their own while Koreans should hear about the social benefits of mask-wearing.

Keywords: mask-wearing behavior; COVID-19; theory of reasoned action; cross-cultural study

INTRODUCTION

According to the Food and Drug Administration (FDA), a face mask “covers the user’s nose and mouth and may or may not meet fluid barrier or filtration efficiency levels” (2020, p. 9). Cloth face masks represent a form of dress known as a body supplement because they are added to the body by the wearer (Roach-Higgins & Eicher, 1992). In spring 2020, the Centers for Disease Control and Prevention (CDC) in the US recommended that individuals wear cloth face masks in public to prevent spreading coronavirus disease 2019 (COVID-19) via respiratory droplets (NCIRD, 2020). Even though vaccination rates are increasing for COVID-19 around the world, more variants are appearing and threatening our health and safety (CDC, 2021). In addition, mask-wearing behavior is

Authors’ Note: Hyo Jung (Julie) Chang, PhD, Associate Professor, Department of Hospitality and Retail Management, Texas Tech University, Lubbock TX 79409. Seoha Min, PhD, Associate Professor, Department of Apparel Merchandising & Management, California State Polytechnic University, Pomona CA 91768. Hongjoo Woo, PhD, Assistant Professor, Department of Clothing and Textiles, Yonsei University, Seoul, Korea 03722. Jennifer Yurchisin, PhD, Visiting Assistant Professor, Ketner School of Business, Catawba College, Salisbury NC 28144. Please address correspondence to Hyo Jung (Julie) Chang, Department of Hospitality and Retail Management, Texas Tech University, Lubbock, TX 79409; e-mail: julie.chang@ttu.edu. All authors have made equal contribution. Their names are listed in an alphabetical order.

Family and Consumer Sciences Research Journal, Vol. 50, No. 1, September 2021 5–26
DOI: 10.1111/fcsr.12416
© 2021 American Association of Family and Consumer Sciences
important for any possible future virus spread transmitted through droplet infection. Despite the recommendation for individuals, even those who are vaccinated, to keep wearing face masks while gathering in groups, some people have resisted, and continue to resist, mask-wearing during the pandemic (Feng et al., 2020). For example, the co-founder of the Reopen movement in North Carolina started a “Burn Your Mask Challenge” on Facebook and argued that mandated mask-wearing violated her personal freedom (Collinson & Hu, 2020). In comparison with the United States, the spread of COVID-19 in South Korea has been better controlled since its outbreak because Koreans have been wearing face masks as one method of effective prevention (Lim, Yoon, Song, Kim, & Kim, 2020). According to an international survey, 94% of participating Koreans reported that they wear masks in public to prevent the spread of COVID-19 (Gallup International Association, 2020). This was the highest rate among the 28 participating countries, including the United States, UK, and Japan (Gallup International Association, 2020).

Cultural values may help to explain the different mask-wearing behavior among Americans and Koreans. Hofstede (2001) proposed a model of cultural values to explain behavior differences between nations. South Koreans and Americans differ in terms of the individualism/collectivism value, and this has been shown to have an impact on consumer behavior (Sung, Calantone, & Huddleston, 2020). The cultural value of individualism is marked by personal choice and freedom in decision-making while collectivism emphasizes group interdependence and following social norms (Triandis, 2001). During the pandemic, individualistic Americans may not have wanted to conform to wear masks to the same degree that collectivistic Koreans have been willing to do.

In addition to cultural values, personal traits and past behaviors may also be influencing face mask-wearing behavior. While the theory of reasoned action (TRA) proposes that a person’s attitudes are the proximal cause of behavior, background characteristics, such as values, social-psychological traits, and previous experience are expected to affect behavior through norms and attitudes (Ajzen & Fishbein, 2005). Experience as well as personal factors have a powerful impact on one’s behavior as people tend to repeat behavior based on self-perception of prior attitudes about the behavior because they desire consistency (Yoo & Lee, 2012). Koreans have more past experience wearing face masks than Americans (Bicker, 2019), which may account for the differences in present and future mask-wearing behavior. Furthermore, people vary in the degree to which they are concerned with how others evaluate their appearance (i.e., social appearance anxiety) and feel they are treated disrespectfully (i.e., everyday discrimination). These are two important personality traits that affect individuals’ behavior (Harnois, Bastos, Campbell, & Keith, 2019) and may influence their willingness to wear face masks in public.

To date, there is no study exploring individuals’ mask-wearing behavior within different cultural contexts. Comparing Americans’ and Koreans’ behavior using the TRA could provide valuable insight concerning the reasons why people do or do not wear face masks. To this end, the present study seeks to identify the factors that directly and indirectly influence face mask-wearing in the United States and South Korea. The findings can be used to guide efforts to encourage mask-wearing behavior during the pandemic and beyond.
Background Characteristics in the TRA

The TRA was first proposed by Fishbein and Ajzen in the 1970s as a means to explain the way in which attitudes affect volitional behavior (Hale, Householder, & Greene, 2002). Early conceptualizations of the TRA predicted a sequence of effects in which beliefs about a behavior were expected to lead to attitudes toward a behavior, followed by intention to perform the behavior, and finally actual behavior (Fishbein, 1979). More recently, the TRA has been expanded to acknowledge the influence of background factors on behavior (Ajzen & Fishbein, 2005). These background factors include social and individual characteristics, like culture, past behavior, and personality traits (Ajzen & Fishbein, 2005).

Culture. The TRA has been applied effectively across cultures, and its ability to predict consumer behavior has been supported in both the United States and South Korea (Lee & Green, 1991; Park, 2000). While culture is not a concept in the original TRA model, researchers (Bagozzi, Wong, Abe, & Bergami, 2000) have found differences in the strengths of the relationships between the concepts in the model when investigating behavior in countries with different types of cultures. According to Hofstede (2001), a nation’s culture is composed of four value dimensions: power distance, uncertainty avoidance, masculinity versus femininity, and individualism versus collectivism. The degree to which the people in a culture possess each value can be used to explain behavior differences.

Of Hofstede’s (2001) dimensions, individualism versus collectivism seems to be the dimension that affects the influence of norms and attitudes on behavioral intention when applying the TRA to compare Korean and the US consumers’ behavior (Yun & Park, 2010). As such, individualism versus collectivism may also have an impact on mask-wearing behavior across the two cultures. Individualistic cultures, like the United States, are marked by an emphasis on personal achievement, concern for oneself, and loose connections between people. In contrast, the collectivist culture of South Korea stresses strong connections between people and group cohesion (Jung & Lee, 2006). These values are expressed in appearance as a desire to show a unique personality in the United States versus conform to the appearance of others South Korea (Shim, 2007). Appearance management by comparing oneself to the norm in order to ensure compliance with that norm is extremely important to those in collectivist cultures (Jung & Lee, 2006). People living in individualistic cultures, on the other hand, want to make their own choices about whether or not to conform to group expectations. People in the United States are responsible for their own behavior and the consequences following from that behavior. This does not imply that Americans do not care about what happens to their fellow citizens but rather that people should be allowed the freedom to determine the best course of action to protect themselves (Kemmelmeier, Jambor, & Letner, 2006). While wearing a face mask similar to others could be appealing to Koreas because it demonstrates group cohesion, the same behavior could be unpleasant to Americans because it signals a lack of free will and self-determination. These cultural differences led to the first hypothesis:
H1: There are statistically significant differences among all variables related to face mask-wearing behavior between US and Korean consumers.

Past behavior. The present is often shaped by an accumulation of the past (Harrison, 2013), and past behavior has been shown to have a significant impact on future behavior (Yoo & Lee, 2012). In the extended TRA, past experience is proposed to influence people’s beliefs (Ajzen & Fishbein, 2005). Past behavior is a precursor variable that has an indirect effect on future behavior through norms and attitudes (Hennessy et al., 2010). Consumers’ perceived norms are affected by the level of familiarity they have with a product (Arvola, Lähteenmäki, & Tuorila, 1999). Thus, individuals’ past mask-wearing behavior, as a background characteristic, likely affects the norms related to future face mask-wearing. Before the COVID-19 pandemic, Koreans wore face masks to protect themselves from air pollutants and the H1N1 virus (Bicker, 2019). Face mask-wearing behavior, however, is a completely new and unfamiliar behavior for the majority of Americans. The first time most Americans wore face masks in public was during the spring of 2020. Therefore, past mask-wearing behavior could have occurred both before and during the pandemic, and both instances of previous face mask-wearing behavior may influence future behavior. Consequently, two past mask-wearing behavior variables are included in the present study, one focusing on behavior before the COVID-19 pandemic and one during the current COVID-19 pandemic. Based on this review of literature, we developed:

H2: For both Korean and US consumers,
H2a: Past mask-wearing behavior before the pandemic will be positively related to subjective norms toward wearing masks
H2b: Past mask-wearing behavior during the pandemic will be positively related to subjective norms toward wearing masks
H3: For both Korean and US consumers,
H3a: Past mask-wearing behavior before the pandemic will be positively related to personal norms toward wearing masks
H3b: Past mask-wearing behavior during the pandemic will be positively related to personal norms toward wearing masks

Social appearance anxiety (SAA). Social appearance anxiety (SAA) refers to feeling “negatively evaluated by others because of one’s overall appearance, including body image” (Hart et al., 2008, p. 48). Literature indicates that an individual’s SAA could vary across his/her cultural background. Hofmann, Anu Asnaani, and Hinton (2010) reviewed literature regarding cultural aspects related to social anxiety and indicated that there are cultural differences in the prevalence rates, expressions, and treatments of social anxiety. They further indicated that the Taijin Kyofusho disorder, an excessive fear of being observed and aversion to social interaction, is regarded as a cultural expression of social anxiety and often observed in East Asian culture (Hofmann et al., 2010). An individual with this type of social anxiety is concerned about presenting his/her appearance that will embarrass others; thus, it has similarities with symptoms of SAA.
In addition, SAA is regarded to have influences on one’s appearance management behavior. Kim and Chung (2016) surveyed 428 female college students living in South Korea and indicated that SAA has a significant positive impact on appearance management behavior and cosmetic surgery intention. Furthermore, SAA has an effect on individuals’ norms, such as appearance norms and social gender norms (Trekels & Eggermont, 2017). In this regard, individuals who experience greater SAA may be more likely to follow social norms about wearing face masks in public because they do not want to stand out from the crowd. If their peer group is wearing masks, then they will be likely to wear masks. On the other hand, if their peer group is not wearing masks, then they, too, will resist wearing masks. Americans may exhibit more SAA than Koreans in the context of mask-wearing because mask-wearing is a new phenomenon for Americans and may cause concern and confusion (Mind Organization, 2020). The next set of hypotheses was proposed as follows:

H2c: For both Korean and US consumers, social appearance anxiety will be positively related to subjective norms toward wearing masks
H3c: For both Korean and US consumers, social appearance anxiety will be positively related to personal norms toward wearing masks

*Everyday discrimination.* Harnois et al. (2019) indicated that “everyday discrimination refers to acts of interpersonal discrimination that can happen repeatedly over the life course, in a variety of contexts, and include even such things as being treated with disrespect and being given poor service” (p. 231). Perceived everyday discrimination is highly prevalent among racial/ethnic minorities in the United States (Gong et al., 2017). People who already perceive a higher level of discrimination might be more reluctant to wear a mask because doing so will obscure their identity and may draw unwanted attention (Mind Organization, 2020). For this reason, members of minority groups in the United States may feel more distress (Buckner, 2020) and this will influence their desire to follow subjective and personal norms. While both Koreans and Americans can experience everyday discrimination, everyday discrimination may be felt more strongly among Americans whose population is racially and ethnically distinguishable. South Korea has a more homogenous population that exhibits much lower distinguishability among individuals based on ethnicity (New World Encyclopedia, n.d.). In addition, because wearing a mask was already a common act in South Korea (Bicker, 2019), they may feel a lower level of discrimination by wearing a mask compared with Americans who are unfamiliar with wearing a mask. Based on the literature, the following hypotheses were developed:

H2d: For both Korean and US consumers, perceptions of everyday discrimination will be negatively related to subjective norms toward wearing masks
H3d: For both Korean and US consumers, perceptions of everyday discrimination will be negatively related to personal norms toward wearing masks
Subjective and Personal Norms

Subjective norms also play an important role in the TRA (Lee, Damhorst, & Paff Ogle, 2009). Subjective norms represent the degree to which people feel pressure from friends and family to perform a behavior (Ajzen & Fishbein, 2005). In the original conceptualization of the TRA, both subjective norms and attitudes were predicted to independently affect behavior. While subjective norms have been shown to positively influence behavior directly, the relationship between the two variables is often weak (Armitage & Conner, 2001). As a result, researchers have suggested that subjective norms should be conceptualized as indirectly influencing behavior through attitudes (Smith & Louis, 2009). This indirect relationship was found to exist in research on recycling behavior (Park & Ha, 2014).

In our study, we propose that social pressure plays a role in shaping consumers’ attitudes toward wearing masks. Both Americans and Koreans will look to friends and family for guidance in this situation. For Americans, mask-wearing is a new behavior, and they may be unsure whether or not to wear a face mask. Therefore, social norms will be a guide for their attitudes toward mask-wearing behavior. For Koreans, mask-wearing is a familiar behavior, but social norms are still expected to influence attitudes toward the behavior as a result of the concept of face. Face is “the public self-image that every member of a society wants to claim for himself/herself” (Brown & Levinson, 1987, p. 61). Positive face is achieved in a collectivist society, like Korea (Markus & Kitayama, 1991), by maintaining harmony (Frey, Onyewuenyi, Hymel, Gill, & Pearson, 2021). Koreans seek the approval of important others by being polite and doing what is expected of them (Kim, Guan, & Park, 2012). Social norms influence Koreans’ attitudes toward mask-wearing because they look to others in order to form their opinions about appropriate public behavior. Because more importance is placed on achieving group goals than personal goals in a collectivistic society, with the reverse being true for an individualistic society like the United States (Frey et al., 2021), social norms regarding mask-wearing behavior may exert a greater influence on Koreans’ attitudes than Americans’ attitudes in the current study.

Although not mentioned in the TRA, personal norms also have an influence on behavior (Park & Ha, 2014). Personal norms are individuals’ beliefs about the behaviors in which their significant others think they should engage (Kim, Lee, & Yoon, 2015). Like subjective norms, personal norms also affect behavior indirectly through their influence on attitudes (Aertsens, Verbeke, Mondelaers, & Van Huylenbroeck, 2009). The Value-Belief-Norm (VBN) theory, as set forth by Stern, Dietz, Abel, Guagnano, and Kalof (1999), explains that personal norms affect behavior when individuals feel a moral obligation to engage in that behavior. Personal norms are particularly influential when behaviors are designed to help others (Landon, Woosnam, & Boley, 2018). Because mask-wearing is an altruistic behavior, personal norms are most likely important. Furthermore, individuals’ personal norms are often impacted by their cultural background. Heinrichs et al. (2006) concluded that personal norms were significantly influenced by cultural norms in collectivistic countries. As such, personal norms may exert a stronger influence in the model of Korean face mask-wearing behavior compared with the model of American face mask-wearing behavior. Thus, the following hypotheses were developed:
H4: For both Korean and US consumers,
H4a: Subjective norms toward wearing masks will be positively related to cognitive attitudes toward wearing masks
H4b: Personal norms toward wearing masks will be positively related to cognitive attitudes toward wearing masks

Cognitive and Affective Attitudes and Behavior

According to Ajzen and Fishbein (1977), attitudes represent an individual’s “evaluation of the entity in question,” with the “entity” being “some aspect of the individual’s world, such as another person, a physical object, a behavior, or a policy” (p. 889). For face masks, some individuals possess positive attitudes and others possess negative attitudes toward wearing face masks. People’s attitudes go on to affect their behavior. For example, during the H1N1 pandemic in 2009, Chinese students’ attitudes toward face mask-wearing were positively linked to their behavior (Chan et al., 2015).

The TRA (Ajzen & Fishbein, 1980) predicts that attitudes about the behavior will directly influence intention to perform a behavior, which is a proxy for actual future behavior. Mat Dawi, Namazi, and Maresova (2021) found that attitudes toward COVID-19 preventative behaviors positively influenced individuals’ intention to engage in such behaviors. Mat Dawi et al.’s (2021) research, like much of the research employing the TRA, however, presents only one conceptualization of attitudes (Conner, Godin, Sheeran, & Germain, 2013). Rosenberg and Hovland (1960) suggested that attitudes are comprised of three components: an affective component, a cognitive component, and a behavioral component. While it can be argued that the TRA does include a behavioral measure of attitudes because it assesses intention to perform the behavior, the TRA typically only assesses either the affective or cognitive aspects of attitude. Measuring both of these components of attitude separately provides richer, more explanatory value in supporting the attitude-behavior relationship (Conner et al., 2013).

In the standard learning model, (Ray, 1973), individuals follow a cognition-affect-behavior sequence. This pattern of thinking followed by feeling has been demonstrated in previous research (Back & Parks, 2003). In the present study, individuals likely engage first in thinking about mask-wearing, then experience an emotional response to it, and finally engage in behavior that is consistent with their thoughts and emotions about wearing masks. Based on this reasoning, the last two hypotheses were proposed as follows:

H5: For both Korean and US consumers, cognitive attitudes toward wearing masks will be positively related to affective attitudes toward wearing masks
H6: For both Korea and US consumers, affective attitudes toward wearing masks will be positively related to future mask-wearing behavioral intentions toward wearing masks

To summarize, Figure 1 illustrates the framework of the study. The literature indicates that individuals’ mask-wearing behavior can be different depending on their culture. For example, individuals in collectivistic cultures, such as Korea, care about the collective wellbeing and preventing COVID-19. Thus, they may be more willing to tolerate any personal inconvenience to wear masks in public.
People in individualistic cultures, such as the United States, may prioritize their personal choices and physical and psychological comfort. This could lead to their unwillingness to wear masks in public (Lu, Jin, & English, 2021). Our framework, which is grounded in the TRA, suggests that participants’ culture affects all variables related to face mask-wearing (H1). The four exogenous variables, individuals’ past mask-wearing behavior before COVID-19, past mask-wearing behavior during COVID-19, social appearance anxiety, and everyday discrimination, are related to participants’ subjective norms and personal norms toward wearing masks (H2 and H3). Subjective norms and personal norms influence participants’ cognitive attitude toward wearing masks (H4), and in turn, their cognitive attitude influences their affective attitude toward wearing masks (H5). Finally, their affective attitude toward wearing masks affects participants’ future mask-wearing behavior (H6).

METHODOLOGY

An online survey was used for this study. A quota sampling method was used to recruit an equal distribution of United States and Korean participants through a Qualtrics’ panel. For the quota sampling, we requested a sample size of 300 respondents consisting of 150 US consumers and 150 Korean consumers. In terms of a filter question, participants’ nationality was asked at the beginning of the questionnaire. If a participant’s nationality was neither American nor Korean, s/he was automatically excluded from participation the survey.

A structured questionnaire featuring seven-point Likert-type items was developed based on existing measurements. The questionnaire was developed first in English. Then two bilingual researchers who are fluent in both English and Korean translated the questionnaire into Korean. The translated questionnaire was then back-translated into English from Korean by another two bilingual researchers. The items on the questionnaire were used to assess all variables as well as demographic characteristics. Participants were able to access

Figure 1: Theoretical framework of the study.
to the survey via a desktop or a mobile device, and questions were presented in the order of items in Table 2. SPSS was used to analyze the data in order to describe the demographic characteristics of the participants and to test the hypotheses.

RESULTS

Demographics
A total of 300 participants were recruited, including 150 Americans and 150 Koreans. In terms of the US sample, there were more female participants (72.7%, \( n = 109 \)) than male. The average age of the US participants was 39.3. Regarding the highest education level achieved, 42% of participants \( (n = 63) \) had finished high school and 24.7% had earned a bachelor’s degree. Household income of the participants was evenly distributed having 10–20% of them in each category (see Table 1). The South Korean participants exhibited a fairly equal distribution of gender (male: 46.7%, \( n = 70 \), female: 53.3%, \( n = 80 \)), and their average age was 40.1. Similar to the US participants, 28.7% of them had finished high school and 38.0% had earned a bachelor’s degree. Household income was also fairly evenly distributed for Korean participants, having 10-20% of them in each category (see Table 1).

Exploratory Factor Analysis
Exploratory factor analysis using Varimax rotation was used for this study. Items with factor loadings of a minimum 0.40 were kept and deemed reliable.

| Characteristics          | United States | Percentage (%) | South Korea | Percentage (%) |
|--------------------------|---------------|----------------|-------------|----------------|
| Number of respondents    | 150           |                | 150         |                |
| Gender                   |               |                |             |                |
| Female                   | 109           | 72.7           | 80          | 53.3           |
| Male                     | 40            | 26.7           | 70          | 46.7           |
| Not disclosed            | 1             | 0.006          |             |                |
| Age (Mean)               | 39.3          |                | 40.1        |                |
| Education                |               |                |             |                |
| Less than high school    | 4             | 2.7            | 5           | 3.3            |
| Finished high school     | 63            | 42.0           | 43          | 28.7           |
| Associate’s degree       | 25            | 16.7           | 25          | 16.7           |
| Bachelor’s degree        | 37            | 24.7           | 57          | 38.0           |
| Master’s degree          | 15            | 10.0           | 12          | 8.0            |
| Doctoral degree          | 4             | 2.7            | 3           | 2.0            |
| Household income         |               |                |             |                |
| $19,999 or less          | 31            | 20.7           | 25          | 16.7           |
| $20,000–34,999           | 22            | 14.7           | 29          | 19.3           |
| $35,000–49,999           | 20            | 13.3           | 31          | 20.7           |
| $50,000–64,999           | 17            | 11.3           | 16          | 10.7           |
| $65,000–79,999           | 22            | 14.7           | 19          | 12.7           |
| $80,000–99,999           | 10            | 6.7            | 10          | 6.7            |
| $100,000 or above        | 19            | 12.7           | 9           | 6.0            |
(Nunnally, 1978). Cross-loaded items, having a factor loading smaller than 0.20, were removed from further analyses. A Cronbach’s alpha level of $\alpha = 0.60$ was used to determine reliability (Ridwan, Militina, & Achmad, 2020). All the factors met the satisfactory $\alpha$ level, ranging from 0.86 to 0.98. Past mask-wearing behavior (before and during the pandemic) had three reliable items, SAA had 14 reliable items, everyday discrimination had nine reliable items, subjective norms had five reliable items, personal norms had five reliable items, cognitive attitudes had three reliable items, affective attitudes had two reliable items, and future behavior intention had three reliable items. Furthermore, the convergent validity was accessed by the average variance extracted (AVE) and the results of $\text{AVE} > 0.50$ were adequate to prove the validity of our measurements as well as the sources for all items used for this study (see Table 2).

**Hypothesis Testing**

**Testing H1: MANOVA results.** To compare past behavior (before and during the pandemic), SAA, everyday discrimination, subjective and personal norms, cognitive and affective attitudes, and future behavior intention between the United States and South Korea, a multivariate analysis of variance (MANOVA) was conducted. The result indicated that there were significant differences in these variables between the United States and South Korea ($\text{Wilk's } \lambda = 0.80, F_{(9,290)} = 8.33, p < .001$). This called for analysis of variance (ANOVA) as a follow-up analysis to examine specific mean differences in each of the dependent variables between the United States and South Korea.

The results of the ANOVA tests revealed that there were significant differences between the United States and South Korea in terms of all dependent variables except past behavior (before the pandemic). Table 3 presents the summarized results of these differences. First, Korean participants ($M_{\text{Korea}} = 6.37$) had significantly higher past behavior (during the pandemic) than US participants ($M_{\text{US}} = 5.48$) ($F = 20.48, p < .001$). On the other hand, US participants had a significantly higher level of SAA ($M_{\text{US}} = 4.02$) than Korean participants ($M_{\text{Korea}} = 3.44$) ($F = 11.27, p = .001$). US participants also had a significantly higher level of everyday discrimination ($M_{\text{US}} = 3.55$) than Korean participants ($M_{\text{Korea}} = 2.93$) ($F = 12.01, p = .001$).

For the norms, attitudes, and future behavioral intention toward wearing masks, Korean participants exhibited significantly higher levels than US participants. Korean participants had higher levels of subjective norms ($M_{\text{Korea}} = 6.01$) and personal norms ($M_{\text{Korea}} = 5.88$) than US participants ($M_{\text{US}} = 4.97/5.07$) ($F = 42.73/22.75, p < .001$). Korean participants also had significantly higher cognitive attitudes toward wearing masks ($M_{\text{Korea}} = 5.91$) than US participants ($M_{\text{US}} = 4.74$) ($F = 43.51, p < .001$), and affective attitudes toward wearing masks ($M_{\text{Korea}} = 5.91$ vs. $M_{\text{US}} = 5.20$, $F = 16.70, p < .001$). Finally, Korean participants had significantly greater behavioral intention to wear masks in the future ($M_{\text{Korea}} = 6.44$) than US participants ($M_{\text{US}} = 5.28$) ($F = 49.57, p < .001$). Thus, H1 was partially supported.

**Testing H2–H6: regression results.** Regarding the second set of hypotheses, four independent variables including SAA, past mask-wearing behavior before and during the pandemic, and everyday discrimination were entered in the regression model with the dependent variable of subjective norms. First, for US
### TABLE 2: Factor Loadings and Reliability for Measurements

| Items                                                                 | Factor loading | Reliability (%) | AVE | Factor loading | Reliability (%) | AVE |
|-----------------------------------------------------------------------|----------------|-----------------|-----|----------------|-----------------|-----|
| **Past Mask-Wearing Behavior (PB-B):** Before the COVID-19 pandemic, how often did you wear the mask while…? (Yoo & Lee, 2012) |                |                 |     |                |                 |     |
| shopping in a store                                                   | 0.88           | 0.98            |     | 0.88           | 0.98            |     |
| socializing with friends in public                                    | 0.93           | 0.98            |     | 0.93           | 0.98            |     |
| using public transportation                                           | 0.96           | 0.98            |     | 0.96           | 0.98            |     |
| visiting friends or family members in the hospital                    | 0.96           | 0.96            |     | 0.96           | 0.96            |     |
| **Past Mask-Wearing Behavior (PB-B):** During the COVID-19 pandemic, how often did you wear the mask while…? (Yoo & Lee, 2012) | 0.97           | 85.81           | 0.95| 0.97           | 85.81           | 0.95| 84.82|
| shopping in a store                                                   | 0.88           | 0.93            |     | 0.88           | 0.93            |     |
| socializing with friends in public                                    | 0.93           | 0.91            |     | 0.93           | 0.91            |     |
| using public transportation                                           | 0.96           | 0.95            |     | 0.96           | 0.95            |     |
| visiting friends or family members in the hospital                    | 0.96           | 0.93            |     | 0.96           | 0.93            |     |
| **Social Appearance Anxiety (SAA) (Harel et al., 2019)**               |                |                 |     |                |                 |     |
| I feel nervous when having my picture taken                           | 0.65           | 0.54            |     | 0.65           | 0.54            |     |
| I get tense when it is obvious people are looking at me               | 0.83           | —               |     | 0.83           | —               |     |
| I am concerned people won’t like me because of the way I look         | 0.77           | 0.81            |     | 0.77           | 0.81            |     |
| I worry that others talk about flaws in my appearance when I am not around | 0.88           | 0.83            |     | 0.88           | 0.83            |     |
| I am concerned that people will find me unappealing because of my appearance | 0.85           | 0.84            |     | 0.85           | 0.84            |     |
| I am afraid people find me unattractive                               | 0.86           | 0.87            |     | 0.86           | 0.87            |     |
| I worry that my appearance will make life more difficult for me       | 0.86           | 0.84            |     | 0.86           | 0.84            |     |
| I am concerned that I have missed out on opportunities because of my appearance | 0.89           | 0.67            |     | 0.89           | 0.67            |     |
| I get nervous when talking to people because of the way I look        | 0.87           | 0.82            |     | 0.87           | 0.82            |     |
| I feel anxious when other people say something about my appearance    | 0.90           | 0.86            |     | 0.90           | 0.86            |     |
| I am frequently afraid that I won’t meet others’ standards of how I should look. | 0.87           | 0.86            |     | 0.87           | 0.86            |     |
| I worry people will judge the way I look negatively                   | 0.83           | 0.88            |     | 0.83           | 0.88            |     |
| I am uncomfortable when I think others are noticing flaws in my appearance. | 0.89           | 0.81            |     | 0.89           | 0.81            |     |
| I worry that a romantic partner will/would leave me because of my appearance. | 0.89           | 0.82            |     | 0.89           | 0.82            |     |
| I am concerned that people think I am not good looking.               | —              | 0.77            |     | —              | 0.77            |     |
| **Everyday Discrimination (ED) (Reeve et al., 2011)**                  |                |                 |     |                |                 |     |
|                                                                       | 0.96           | 76.07           | 0.96| 0.96           | 75.96           |     |

(continued)
TABLE 2: (continued)

| Items                                                                 | Factor loading | Reliability (%) | AVE | Factor loading | Reliability (%) | AVE |
|------------------------------------------------------------------------|----------------|-----------------|-----|----------------|-----------------|-----|
| I am treated with less courtesy than other people                      | 0.82           | 0.84            |     |                |                  |     |
| I am treated with less respect than other people                        | 0.89           | 0.86            |     |                |                  |     |
| I receive poorer service than other people at restaurants or stores    | 0.91           | 0.91            |     |                |                  |     |
| People act as if they think I am not smart                             | 0.87           | 0.89            |     |                |                  |     |
| People act as if they are afraid of me                                 | 0.82           | 0.80            |     |                |                  |     |
| People act as if they think I am dishonest                             | 0.91           | 0.91            |     |                |                  |     |
| People act as if they're better than I am                              | 0.81           | 0.87            |     |                |                  |     |
| I am called names or insulted                                          | 0.90           | 0.88            |     |                |                  |     |
| I am threatened or harassed                                            | 0.90           | 0.89            |     |                |                  |     |
| Subjective Norms (SN) (Ajzen & Fishbein, 1980)                         | 0.86           | 67.92           | 0.95| 82.78          |                  |     |
| Most people who are important to me think I should wear a face mask/covering in public | 0.89           |                  |     | 0.91           |                  |     |
| Most people who are important to me think it would be a good idea to wear the face mask/covering in public | 0.91           |                  |     | 0.91           |                  |     |
| Most people who are important to me want me to wear a face mask/covering in public | 0.92           |                  |     | 0.91           |                  |     |
| It is expected of me to wear a face mask/covering in public            | 0.87           | 0.92            |     |                |                  |     |
| I feel under social pressure to wear a face mask/covering in public    | 0.41           | 0.90            |     |                |                  |     |
| Personal Norms (PN) (Vining & Ebreo, 1992)                            | 0.88           | 81.18           | 0.80| 72.41          |                  |     |
| I feel a strong personal obligation to wear a face mask/covering in public | 0.91           | 0.84            |     |                |                  |     |
| I am willing to put extra efforts to wear a face mask/covering in public on a regular basis | 0.92           | 0.91            |     |                |                  |     |
| I would feel guilty if I didn’t wear a face mask/covering in public   | 0.87           | 0.80            |     |                |                  |     |
| Cognitive attitudes (CA) (Conner et al., 2013)                         | 0.92           | 86.08           | 0.90|                |                  |     |
| I believe that wearing a face mask/covering in public will protect me from developing COVID-19 | 0.92           |                  |     |                |                  |     |
| If I wear a face mask/covering in public, I can protect my friends and family members from developing COVID-19 | 0.94           |                  |     |                |                  |     |
| Wearing a face mask/covering in public will help limit the spread of COVID-19 | 0.93           |                  |     |                |                  |     |
| Affective attitudes (AA) (Chan et al., 2015)                           | 0.91           | 91.63           | 0.63| 47.51          |                  |     |
| Wearing the face mask/covering in public would be beneficial          | 0.96           | 0.55            |     |                |                  |     |
| Wearing the face mask/covering in public would be valuable            | 0.96           | 0.52            |     |                |                  |     |
participants, the overall model of this regression was significant ($R^2 = .345$, $F = 19.060$, $p < .001$). However, only past mask-wearing behavior before the pandemic ($\beta = 0.235$, $p < .01$) and past mask behavior during the pandemic ($\beta = 0.434$, $p < .001$) positively affected subjective norms of US participants significantly.

The overall model was also significant for Korean participants ($R^2 = .211$, $F = 9.690$, $p < .001$). SAA ($\beta = 0.201$, $p < .05$) and past mask-wearing behavior during the pandemic ($\beta = 0.241$, $p < .01$) positively influenced subjective norms
of Korean participants, while everyday discrimination ($\beta = -0.403, p < .001$) had a significant negative influence on subjective norms. Unlike US participants, past mask-wearing behavior did not predict subjective norms. There were no multicollinearity issues detected (VIF > 1.00). Thus, H2 was partially supported for both United States and Korean consumers.

Regarding the third set of hypotheses, four independent variables including SAA, past mask-wearing behavior before and during the pandemic, and everyday discrimination were entered in a regression model with the dependent variable of personal norms. The overall model of this regression was significant for US participants ($R^2 = .306, F = 15.992, p < .001$). Both past mask-wearing behavior before the pandemic ($\beta = 0.226, p < .05$) and during the pandemic ($\beta = 0.436, p < .001$) positively affected the personal norms significantly for US participants. The overall model was also significant for Korean participants ($R^2 = .207, F = 9.455, p < .001$).

However, the predicting effect of each independent variable was somewhat different between United States and South Korea. SAA ($\beta = 0.169, p < .05$) and past mask-wearing behavior during the pandemic ($\beta = 0.187, p < .01$) had a significantly positive influence on personal norms for Koreans, whereas everyday discrimination ($\beta = -0.395, p < .001$) negatively influenced personal norms. Unlike US participants, mask-wearing behavior before the pandemic had no significant influence on the personal norms of Koreans. There were no multicollinearity issues detected (VIF > 1.00). Thus, H3 was partially supported for both United States and Korean consumers.

For H4a and b, two independent variables including subjective norms and personal norms were entered in the regression model with the dependent variable of cognitive attitudes. The overall model of this regression was significant ($R^2 = .581, F = 101.77, p < .001$) for US participants. Both subjective norms ($\beta = 0.393, p < .001$) and personal norms ($\beta = 0.409, p < .001$) significantly affected cognitive attitudes of US participants. The overall model was also significant for Korean participants ($R^2 = .472, F = 65.582, p < .001$). Unlike the US’s case, although subjective norms ($\beta = 0.725, p < .001$) had a significant positive influence on Korean participants’ cognitive attitude toward wearing masks, personal norms ($\beta = -0.057, p = .526$) had no significant influence. Thus, H4 was partially supported.

To test the relationship between cognitive attitudes and affective attitudes about wearing the mask during the pandemic (H5), a linear regression analysis was conducted. The results showed a significant effect of cognitive attitudes toward wearing masks on the affective attitudes toward wearing masks for both the United States ($\beta = 0.772, p < .001$) and the Korean participants ($\beta = 0.457, p < .001$). Thus, H5 was supported.

Lastly, H6 tested the relationship between the affective attitudes and future behavioral intention of wearing a face mask. The result showed a significant effect of affective attitudes toward wearing masks on future behavioral intention to wear masks for both the United States ($\beta = 0.749, p < .001$) and Koreans ($\beta = 0.371, p < .001$) participants. Hence, H6 was supported (see Table 4 and Figure 2).
| Hypothesis | Country | Variables                                      | df | $R^2$ | $F$   | $\beta$ | $t$-value | Sig   |
|------------|---------|------------------------------------------------|----|-------|-------|---------|-----------|-------|
| 2          | United States | Dependent Variable: Subjective Norms | 145 | .345  | 19.060 | 0.000*** |          |       |
|            |         | Social Appearance Anxiety | | | | 0.167 | 1.658 | 0.099 |
|            |         | Past Mask-Wearing Behavior (Before COVID-19) | | | | 0.235 | 3.287 | 0.001** |
|            |         | Past Mask-Wearing Behavior (During COVID-19) | | | | 0.434 | 6.266 | 0.000*** |
|            | South Korea | Everyday Discrimination | 145 | .211  | 9.690  | 0.000*** |          |       |
|            |         | Social Appearance Anxiety | | | | 0.201 | 2.334 | 0.021* |
|            |         | Past Mask-Wearing Behavior (Before COVID-19) | | | | −0.030 | −0.735 | 0.464 |
|            |         | Past Mask-Wearing Behavior (During COVID-19) | | | | 0.241 | 3.338 | 0.001** |
|            |         | Everyday Discrimination | | | | −0.403 | −4.551 | 0.000*** |
| 3          | United States | Dependent Variable: Personal Norms | 145 | .306  | 15.992 | 0.000*** |          |       |
|            |         | Social Appearance Anxiety | | | | 0.084 | 0.829 | 0.419 |
|            |         | Past Mask-Wearing Behavior (Before COVID-19) | | | | 0.226 | 3.074 | 0.003** |
|            | South Korea | Everyday Discrimination | 145 | .207  | 9.455  | 0.000*** |          |       |
|            |         | Social Appearance Anxiety | | | | 0.169 | 2.035 | 0.044* |
|            |         | Past Mask-Wearing Behavior (Before COVID-19) | | | | −0.055 | −1.388 | 0.167 |
|            |         | Past Mask-Wearing Behavior (During COVID-19) | | | | 0.187 | 2.680 | 0.008** |
|            |         | Everyday Discrimination | | | | −0.395 | −4.635 | 0.000*** |
| 4          | United States | Dependent Variable: Cognitive Attitudes | 147 | .581  | 101.77 | 0.000*** |          |       |
|            |         | Subjective Norms | | | | 0.393 | 4.331 | 0.000*** |
|            |         | Personal Norms | | | | 0.409 | 4.508 | 0.000*** |
|            | South Korea | Dependent Variable: Cognitive Attitudes | 147 | .472  | 65.584 | 0.000*** |          |       |
|            |         | Subjective Norms | | | | 0.725 | 8.487 | 0.000*** |
|            |         | Personal Norms | | | | −0.057 | −0.636 | 0.526 |

(continued)
DISCUSSION AND CONCLUSIONS

This study compared the mask-wearing behavior of United States and South Korea consumers. The responses showed significant differences between the two groups for variables including SAA, past mask-wearing behavior (during the pandemic), everyday discrimination, subjective norms, personal norms, cognitive and affective attitude, and future behavioral intention. US participants had significantly higher levels of SAA and everyday discrimination compared with participants from South Korea. While the finding concerning SAA contradicts previous research suggesting that SAA is higher for people in collectivistic cultures than individualistic cultures (Suryaningrum, 2018), the fact that mask-wearing behavior is a new behavior for Americans may have caused stress that resulted in additional SAA. Furthermore, discrimination issues have come to the forefront and therefore, US participants may be more sensitive to discrimination than Korean participants. For all other variables including norms, attitudes, and future mask-wearing behavioral intentions, participants from South Korea had significantly higher levels than US participants, leading to higher mask-wearing rates in South Korean than in the United States and supporting previous findings (So, 2020).

Substantial differences between the United States and South Korea were revealed through model testing. First, both past behaviors of wearing masks increased subjective norms related to wearing face masks for US participants. However, for the Koreans, their past behavior before the pandemic did not have any influence. Instead, SAA and past mask-wearing behavior during the pandemic significantly increased subjective norms, and everyday discrimination significantly decreased subjective norms, which is similar to the finding of Trekels and Eggermont (2017). Koreans exhibited low concern from wearing masks related to everyday discrimination, most likely because their population is more homogenous than the United States.

Personal norms of wearing masks were also found to be formed by different factors between the United States and South Korea. Consistently with subjective

| Hypothesis | Country  | Variables                                  | df  | $R^2$ | $F$     | $\beta$ | t-value | Sig    |
|------------|---------|--------------------------------------------|-----|-------|---------|---------|---------|--------|
| 5          | United States | Dependent Variable: Affective Attitudes | 148 | .596  | 218.27  | 0.000***|         |        |
|            |         | Cognitive Attitudes                        |     |       |         | 0.772   | 14.774  | 0.000***|
|            | South Korea | Dependent Variable: Affective Attitudes  | 148 | .253  | 50.207  | 0.000***|         |        |
|            |         | Cognitive Attitudes                        |     |       |         | 0.457   | 7.086   | 0.000***|
| 6          | United States | Dependent Variable: Future Behavior Intention | 148 | .561  | 189.16  | 0.000***|         |        |
|            |         | Affective Attitudes                        |     |       |         | 0.749   | 13.754  | 0.000***|
|            | South Korea | Dependent Variable: Future Behavior Intention | 148 | .167  | 28.622  | 0.000***|         |        |
|            |         | Affective Attitudes                        |     |       |         | 0.371   | 5.443   | 0.000***|

*Note: Numbers are rounded up to three decimal places. *$p < .05$, **$p < .01$, ***$p < .001$. 

TABLE 4: (continued)
norms, only their past mask-wearing behaviors (before and during the pandemic) significantly predicted US participants’ personal norms toward wearing masks. However, Koreans’ personal norms of wearing masks were formed by SAA and past mask-wearing behavior (during the pandemic), as well as being negatively influenced by everyday discrimination. This means that Koreans’ concern about how they look to others and confidence that they are not being discriminated against compared to others increased their subjective and personal norms related to wearing masks. This is in line with the finding of Shim (2007) that South Koreans tend to conform to the appearance of others. However, for the United States, only the experiences of wearing masks before and during the pandemic increased their subjective and personal norms.

Regarding the relationships among norms, attitudes, and behavioral intention toward wearing a mask, the findings revealed some similarities and differences between the United States and South Korea. Both subjective and personal norms were significant predictors of the US participants’ cognitive attitude toward
wearing masks, but personal norms did not influence the Koreans’ cognitive attitude toward wearing masks. This implies that US participants’ cognitive attitudes toward wearing masks were formed by both their own wills and perceived social rules, while Koreans’ cognitive attitudes were mainly driven by subjective norms, not their own wills. As found by Jung and Lee (2006), this could be related to the collectivist culture of South Korea, stressing strong connections between people and group cohesion. Cognitive attitude toward wearing masks significantly increased affective attitude toward wearing masks, and eventually, future behavioral intention to wear masks, for both United States and Korean participants as explained in the TRA (Ajzen & Fishbein, 2005). Overall, our findings suggest the importance of understanding cultural characteristics in relation to the face mask-wearing behavior of United States and Korean consumers.

IMPLICATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The results show that norms, attitudes, and future behavioral intentions toward wearing masks are overall lower for the United States than South Korea. Additionally, the results show that the factors influencing one’s decision to wear face masks are different between United States and South Korea. Therefore, different approaches to promote mask-wearing will be needed for Americans and Koreans. For example, the rules and regulations emphasizing social needs will be more effective for people in South Korea, whereas the individual behavioral expectation to protect oneself while maintaining freedom of choice is more important for people in the United States. As more cities and states enacted mask-wearing mandates, the number of US consumers gaining experience with mask-wearing during the pandemic increased. Based on the results of the present study, this experience positively influences future mask-wearing behavior. This finding is in line with Rogers’ (2002) notion that trialability, or the chance to experiment with the product, can aid in the adoption of preventative innovations, like face masks in the United States.

Even though the overall levels of attitudes and future mask-wearing behavioral intention were lower for US participants than Korean participants, the positive cognitive attitudes about wearing masks during the pandemic significantly influenced the affective attitudes, and in turn, this affected the future mask-wearing intention for both United States and Korean participants. This finding highlights the importance of developing educational and cultural environments to talk about the importance of protecting everyone’s health during the pandemic. The public health experts need to constantly share how important it is to wear face masks to prevent virus transmission even as vaccines become more widely available. Breakthrough cases of the delta variant of the COVID-19 virus are occurring among vaccinated people, and health officials are recommending the continued use of face masks in public (Simmons-Duffin & Stein, 2021). Knowledge transmission will eventually increase awareness and actual behavior. US participants’ lower levels of cognitive and affective attitudes and future intention may be related to differing political beliefs and conflicting public information. Thus, consistent public messaging without political bias is needed to create a safe health environment.
Concerning theoretical contributions, academics interested in individuals’ mask-wearing behavior in the COVID-19 pandemic may gain a deeper understanding of the topic with relation to the TRA (Ajzen & Fishbein, 2005). This study advances the understanding of mask-wearing behaviors of United States and Korean consumers by applying the TRA and adding other significant variables (e.g., past mask-wearing behavior, social appearance anxiety, and everyday discrimination) into the model. The findings of this study will support academic researchers to apply this theoretical framework to other types of consumer behaviors, such as hand hygiene behavior. Furthermore, Marginson (2020) indicated that high individualism in the United States has been associated with a surging outbreak of COVID-19 and claimed the need to change Americans’ value for collective responsibility.

As an initial step, our study provides a theoretical foundation to understand how American individuals’ background characteristics influence their attitude and behavior regarding the use of a face mask. Our study also confirmed that participants from Korea showed higher levels of norms, attitudes, and future mask-wearing behavioral intentions than those from the United States. This finding addresses Dryhurst et al., and’s (2020) suggestion for future research in the area of individuals’ subjective norms and values about COVID-19. The concepts of SAA and everyday discrimination have not been sufficiently explored in the field of clothing and textiles despite their relation to the field. Consequently, the findings contribute to the literature on SAA, everyday discrimination, and mask-wearing behavior.

Caution should be given when generalizing the findings of the study. First, the sample of the study does not represent the general population in the United States and South Korea. Thus, future studies could be conducted with a larger, random sample to allow for generalizability of the research findings. Furthermore, a larger sample size would allow for more robust statistical analyses, such as structural equation modeling (SEM) (Jeon, 2015). Secondly, the findings represent one point during the pandemic. Mask-wearing behavior has undoubtedly evolved over time and will continue to change in the future. However, the findings provide a meaningful understanding of the phenomenon and serve as a starting point for future studies. In order to address these limitations and deepen the understanding of face mask-wearing behavior, it would be desirable for future research to include larger scale surveys with participants from diverse cultural backgrounds.

**AUTHORS’ CONTRIBUTIONS**

All authors have made equal contributions. Their names are listed in alphabetical order.

**REFERENCES**

Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: A review. *British Food Journal*, 111(10), 1140–1167.

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888–918.
Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. London, UK: Pearson.

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín, B.T. Johnson & M.P. Zanna (Eds.), The handbook of attitudes (pp. 173–221). Lawrence Erlbaum Associates Publishers.

Armitage, C.J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A metaanalytic review. British Journal of Social Psychology, 40, 471–499.

Arvola, A., Lähteenmäki, L., & Tuorila, H. (1999). Predicting the intent to purchase unfamiliar and familiar cheeses: The effects of attitudes, expected liking and food neophobia. Appetite, 32(1), 113–126.

Back, K.-J., & Parks, S.C. (2003). A brand loyalty model involving cognitive, affective, and conative brand loyalty and customer satisfaction. Journal of Hospitality & Tourism Research, 27(4), 419–435.

Bagozzi, R.P., Wong, N., Abe, S., & Bergami, M. (2000). Cultural and situational contingencies and the theory of reasoned action: Application to fast food restaurant consumption. Journal of Consumer Psychology, 9(2), 97–106.

Bicker, L. (June 6, 2019). South Korea pollution: Is China the cause of ‘fine dust’? BBC News. Retrieved from https://www.bbc.com/news/world-asia-48346344

Brown, P., & Levinson, S.C. (1987). Politeness: Some universals in language usages. Cambridge, UK: Cambridge University Press.

Buckner, K. (2020). Kam Buckner’s twitter page. Retrieved from https://twitter.com/repkambuckner?lang=en.

Centers for Disease Control and Prevention (2021). SARS-CoV-2 variant classifications and definitions. CDC. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/variants/variant-info.html.

Chan, D.-K.-C., Yang, S.X., Mullan, B., Du, X., Zhang, X., Chatzisarantis, N.L.D., & Hagger, M.S. (2015). Preventing the spread of H1N1 influenza infection during a pandemic: Autonomy-supportive advice versus controlling instruction. Journal of Behavioral Medicine, 38(3), 416–426.

Collinson, S., & Hu, C. (2020). America’s mask resistance is just the latest example of a perennial struggle. CNN. Retrieved from https://www.cnn.com/2020/06/23/world/meanwhile-in-america-june-23-intl/index.html.

Conner, M., Godin, G., Sheeran, P., & Germain, M. (2013). Some feelings are more important: Cognitive attitudes, affective attitudes, anticipated affect, and blood donation. Health Psychology, 32(3), 264–272.

Dodds, W.B., Monroe, K.B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers’ product evaluations. Journal of Marketing Research, 28(3), 307–319.

Dryhurst, S., Schneider, C.R., Kerr, J., Freeman, A.L., Recchia, G., Van Der Bles, A.M., . . . van der Linden, S. (2020). Risk perceptions of COVID-19 around the world. Journal of Risk Research, 23(7–8), 994–1006.

FDA (May, 2020). Enforcement policy for face masks and respirators during the Coronavirus disease (COVID-19). Public Health Emergency (revised). Retrieved from https://www.fda.gov/media/136704/download

Feng, S., Shen, C., Xia, N., Song, W., Fan, M., & Cowling, B.J. (2020). Rational use of face masks in the COVID-19 pandemic. The Lancet Respiratory Medicine, 8(5), 434–436.

Fishbein, M. (1979). A theory of reasoned action: Some applications and implications. Nebraska Symposium on Motivation, 27, 65–116.

Frey, K.S., Onyewuenyi, A.C., Hymel, S., Gill, R., & Pearson, C.R. (2021). Honor, face, and dignity norm endorsement among diverse North American adolescents: Development of a social norms survey. International Journal of Behavioral Development, 45(3), 256–268.

Gallup International Association, 2020Gallup International Association (2020). The coronavirus: A vast scared majority around the world. Gallup International Association. Retrieved from file:///Users/smin/Downloads/GallupReport(20200326)_%C3%84%C3%9A%C2%B7%C3%8E%C2%B3%C2%AA19_1%C3%82%C3%B7.GIA.pdf

Gong, F., Xu, J., & Takeuchi, D.T. (2017). Racial and ethnic differences in perceptions of everyday discrimination. Sociology of Race and Ethnicity, 3(4), 506–521.

Hale, J.L., Householder, B.J., & Greene, K.L. (2002). The theory of reasoned action. The Persuasion Handbook: Developments in Theory and Practice, 14(2002), 259–286.

Harel, D., Mills, S.D., Kwakkenbos, L., Carrier, M.E., Nielsen, K., Portales, A., & Thombs, B.D. (2019). Shortening patient-reported outcome measures through optimal test assembly: Application to the Social Appearance Anxiety Scale in the scleroderma patient-centered intervention network cohort. British Medical Journal Open, 9(2), e024010.
Harnois, C.E., Bastos, J.L., Campbell, M.E., & Keith, V.M. (2019). Measuring perceived mistreatment across diverse social groups: An evaluation of the Everyday Discrimination Scale. Social Science & Medicine, 232, 298–306.

Harrison, R. (2013). Forgetting to remember, remembering to forget: Late modern heritage practices, sustainability and the ‘crisis’ of accumulation of the past. International Journal of Heritage Studies, 19(6), 579–595.

Hart, T.A., Flora, D.B., Palyo, S.A., Fresco, D.M., Holle, C., & Heimberg, R.G. (2008). Development and examination of the social appearance anxiety scale. Assessment, 15(1), 48–59.

Heinrichs, N., Rapee, R.M., Alden, L.A., Bögels, S., Hofmann, S.G., Oh, K.J., & Sakano, Y. (2006). Cultural differences in perceived social norms and social anxiety. Behaviour Research and Therapy, 44(8), 1187–1197.

Hennessy, M., Bleakley, A., Fishbein, M., Brown, L., DiClemente, R., Romer, D., … Salazar, L. (2010). Differentiating between precursor and control variables when analyzing reasoned action theories. AIDS and Behavior, 14(1), 225–236.

Hofmann, S.G., Anu Asnaani, M.A., & Hinton, D.E. (2010). Cultural aspects in social anxiety and social anxiety disorder. Depression and Anxiety, 27(12), 1117–1127.

Hofstede, G. (2001). Culture’s consequences: comparing values, behaviors, institutions, and organizations across nations (2nd edn.). Thousand Oaks, CA: Sage.

Jeon, J. (2015). The strengths and limitations of the statistical modeling of complex social phenomenon: Focusing on SEM, path analysis, or multiple regression models. International Journal of Economics and Management Engineering, 9(5), 1634–1642.

Jung, J., & Lee, S.H. (2006). Cross-cultural comparisons of appearance self-schema, body image, self-esteem, and dieting behavior between Korean and US women. Family and Consumer Sciences Research Journal, 34(4), 350–365.

Kemmelmeyer, M., Jambor, E.E., & Letner, J. (2006). Individualism and good works: Cultural variation in giving and volunteering across the United States. Journal of Cross-Cultural Psychology, 37(3), 327–344.

Kim, J., & Chung, M. (2016). The effects of social appearance anxiety, negative body image and appearance importance on appearance management behavior and cosmetic surgery intention. Fashion & Textile Research Journal, 18(5), 625–636.

Kim, S., Lee, J., & Yoon, D. (2015). Norms in social media: The application of theory of reasoned action and personal norms in predicting interactions with Facebook page like ads. Communication Research Reports, 32(4), 322–331.

Kim, W., Guan, X., & Park, H.S. (2012). Face and facework: A cross-cultural comparison of managing politeness norms in U.S. and Korea. International Journal of Communication, 6, 1–20.

Landon, A.C., Woosnam, K.M., & Boley, B.B. (2018). Modeling the psychological antecedents to tourists’ pro-sustainable behaviors: An application of the value-belief-norm model. Journal of Sustainable Tourism, 26(6), 957–972.

Lee, C., & Green, R.T. (1991). Cross-cultural examination of the Fishbein behavioral intentions model. Journal of International Business Studies, 22(2), 289–305.

Lee, H.H., Dambhorst, M.L., & Paff Ogle, J. (2009). Body satisfaction and attitude theory: Linkages with normative compliance and behaviors undertaken to change the body. Family and Consumer Sciences Research Journal, 37(4), 466–488.

Lim, S., Yoon, H.I., Song, K.H., Kim, E.S., & Kim, H.B. (2020). Face masks and containment of COVID-19: Experience from South Korea. The Journal of Hospital Infection, 106(1), 206–207.

Lu, J., Jin, P., & English, A. (2021). Collectivism predicts mask use during COVID-19. Proceedings of the National Academy of Sciences of the United States of America, 118(23), e2021793118.

Marginson, S. (2020). The relentless price of high individualism in the pandemic. Higher Education Research and Development, 39(7), 1392–1395.

Markus, H.R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review, 98(2), 224–253.

Mat Dawi, N., Namazi, H., & Maresova, P. (2021). Predictors of COVID-19 preventive behavior adoption intention in Malaysia. Frontiers in Psychology, 12, 1476.

Mind Organization (2020). Mask anxiety, face covering and mental health. Retrieved from https://www.mind.org.uk/information-support/coronavirus/mask-anxiety-face-coverings-and-mental-health/.

National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases (2020, April 3). Recommendation regarding the use of cloth face coverings, especially in areas of
significant community-based transmission. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html

New World Encyclopedia. (n.d.). Demographics of South Korea. Retrieved from https://www.newworldencyclopedia.org/entry/Demographics_of_South_Korea

Nunnally, J.C. (1978). An overview of psychological measurement. Clinical Diagnosis of Mental Disorders, 97–146. https://doi.org/10.1007/978-1-4684-2490-4_4

Park, H.S. (2000). Relationships among attitudes and subjective norms: Testing the theory of reasoned action across cultures. Communication Studies, 51(2), 162–175.

Park, J., & Ha, S. (2014). Understanding consumer recycling behavior: Combining the theory of planned behavior and the norm activation model. Family and Consumer Sciences Research Journal, 42(3), 278–291.

Ray, M.L. (1973). Communication and the hierarchy of effects. In P. Clarke (Ed.), New Models for Mass Communication Research (pp. 147–175). Beverly Hills, CA: Sage.

Reeve, B.B., Willis, G., Shariﬀ-Marco, S.N., Breen, N., Williams, D.R., Gee, G.C., & Levin, K.Y. (2011). Comparing cognitive interviewing and psychometric methods to evaluate a racial/ethnic discrimination scale. Field Methods, 23(4), 397–419.

Ridwan, M., Militina, T., & Achmad, G.N. (2020). How trust and quality of information affect buying interest and purchasing decisions? International Journal of Economics, Business and Accounting Research, 4(1), 95,102.

Roach-Higgins, M.E., & Eicher, J.B. (1992). Dress and identity. Clothing and Textiles Research Journal, 10(4), 1–8.

Rogers, E.M. (2002). Diffusion of preventive innovations. Addictive Behaviors, 27(6), 989–993.

Rosenberg, M.J., & Hovland, C.I. (1960). Cognitive, affective, and behavioral components of attitudes. In C.I. Hovland & M.J. Rosenberg (Eds.), Attitude organization and change: An analysis of consistency among attitude components (pp. 1–14). New Haven, CT: Yale University Press.

Shim, J.H. (2007). A study on difference of clothing behavior and desired image by individualism–collectivism. Journal of the Korean Society of Clothing and Textiles, 31(11), 1574–1585.

Simmons-Dufﬁn, S., & Stein, R. (2021). What the latest science shows about breakthrough cases. NPR News. Retrieved from https://www.kosu.org/u-s-news/2021-07-21/worried-about-breakthrough-covid-cases-heres-what-to-know

Smith, J.R., & Louis, W.R. (2009). Group norms and the attitude–behavior relationship. Social and Personality Psychology Compass, 3(1), 19–35.

So, W. (2020, May 25). Comparison of face mask use before and after the coronavirus (COVID-19) outbreak in South Korea as of February 2020. Statista. Retrieved from https://www.statista.com/statistics/1103501/south-korea-mask-use-before-after-covid-19/

Stern, P.C., Dietz, T., Abel, T., Guagnano, G.A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. Human Ecology Review, 6(2), 81–97.

Sung, E., Calantone, R., & Huddleston, P. (2020). Motivators of prestige brand purchase: Testing cultural (in) stability of measures over time across the United States, Poland, and South Korea. Journal of International Consumer Marketing, 32(1), 15–32.

Suryaningrum, C. (2018, February). The correlation of self-construal, self-efficacy, and emotional regulation strategy as cultural factors with social anxiety: Preliminary study. In 3rd ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2017). Atlantis Press.

Trekels, J., & Eggermont, S. (2017). Linking magazine exposure to social appearance anxiety: The role of appearance norms in early adolescence. Journal of Research on Adolescence, 27(4), 736–751.

Triandis, H.C. (2001). Individualism–collectivism and personality. Journal of Personality, 69(6), 907–924.

Vining, J., & Ebreo, A. (1992). Predicting recycling behavior from global and specific environmental attitudes and changes in recycling opportunities. Journal of Applied Social Psychology, 22(20), 1580–1607.

Yoo, B., & Lee, S.-H. (2012). Asymmetrical effects of past experiences with genuine fashion luxury brands and their counterfeits on purchase intention of each. Journal of Business Research, 65(10), 1507–1515.

Yun, D., & Park, H.S. (2010). Culture and the theory of planned behaviour: Organ donation intentions in Americans and Koreans. Journal of Pacific Rim Psychology, 4(2), 130–137.