

## ABSTRACT

Title of Document: CULTURAL DIFFERENCES IN PREJUDICE  
BETWEEN INDIVIDUAL- AND GROUP-  
ORIENTED CULTURES

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The present dissertation investigated cultural differences in the degree and dynamics of prejudice between individual- and group-oriented cultures. In Study 1, in the US where personal responsibility and individual's capitalistic/meritocratic achievements are emphasized, participants reported greater distance to groups based on personal qualities (e.g., heavy drinkers) than in South Korea, and competition for employment was positively associated with prejudice toward various groups (but not in South Korea). In South Korea where the holistic/essential quality, the self-ingroup overlap, and relationships within ingroups are emphasized, participants reported greater distance to groups perceived as essentially different from the majority (e.g., different race) than in the US. In Study 2, the emphasis on individual achievements consistently predicted social hierarchy beliefs in the US (but not in South Korea), whereas the emphasis on roles/positions within ingroups consistently predicted both social and biological hierarchy beliefs in South Korea (but not in the US). In Study 3, the emphasis on individual

uniqueness was negatively associated with social distance to non-normative groups (e.g., homosexuals) only in the US, whereas the value of conformity with norms/conventions predicted social distance to low SES (e.g., poor/uneducated/homeless), non-normative, and value-based (e.g., people whose opinions are different from mine in religious issues) target groups both in the US and South Korea. Conformity with norms/conventions also predicted social distance to racial/ethnic outgroups (e.g., non-Koreans to South Korean participants) only in South Korea. In addition, essentialism was associated with social distance to low SES groups in the US, whereas essentialism was associated with social distance to low SES, non-normative, and racial/ethnic groups in South Korea. Overall, the present research provided empirical evidence that cultural norms/values are associated with differences in the degree and dynamics of prejudice between individual- and group-oriented cultures.

CULTURAL DIFFERENCES IN PREJUDICE BETWEEN INDIVIDUAL- AND  
GROUP-ORIENTED CULTURES

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## Chapter 1: General Introduction

Prejudice is a negative attitude toward an outgroup and its members that creates or maintains hierarchical relations between the groups (Dovidio, Hewstone, Glick, & Esses, 2010). It is widely considered a universal phenomenon, observable across all cultures. Intergroup bias is hypothesized to be rooted in evolutionary-based process (Sidanius & Pratto, 1999) and embedded in the “normal” ways people think about and process information about groups (Dovidio & Gaertner, 2010; Fiske, 1998; Tajfel & Turner, 1979). Nevertheless, relatively little research has examined the dynamics of prejudice cross-culturally (cf. Shin, Dovidio, & Napier, 2013). Like other attitudes, beliefs, and values, prejudice and group-based hierarchies can also be shaped, expressed, applied, and interpreted differently across cultures. The present dissertation thus integrated work in social and cross-cultural psychology to explore potential similarities and differences in the degree and dynamics of prejudice across cultures, specifically between the United States (US) and South Korea, the most prototypical individual-oriented and group-oriented countries in national comparisons, respectively (see Kim, Triandis, Kagitcibasi, Choi, & Yoon, 1994; Nisbett, 2003).

The goal of the dissertation is to illuminate general and culture-specific processes in prejudice and discrimination in individual- and group-oriented cultures. The research presented in the dissertation investigates not only how prejudice toward different groups is expressed in various degrees across cultures, but also how the dynamics of bias may vary as a function of dimensions of cultural norms and values. This chapter considers basic concepts, including culture and prejudice, and reviews the general literature relevant to understanding the relationship between culture and prejudice. I then examine



the specific ways that culture can shape the expression of prejudice, developing a general framework that guides the empirical work and theoretical refinement in later chapters of the dissertation.

The remainder of this chapter (a) defines *culture* and reviews the history and methodology of the research in this area; (b) examines *cultural differences*, drawing on research and theory relevant to the dimensions of cultural differences investigated in the dissertation; and (c) considers *culture and prejudice* based on the nature of prejudice and its measurement in ways that could be applied across cultures.

## **Culture**

In psychology, culture is conceptualized as a dynamic system of practices and meanings that is inseparable from the content and process of the mind (Cohen & Kitayama, 2007). This definition implies that culture is continuously recreated through interactions between an individual person and social situations, including the influence of other individuals, groups, and situations. Culture is also communicated and sustained by norms (ways of thinking, feeling, and behaving that are perceived as appropriate or normal within a group or society; see Stangor, 2004) and values (concepts that are emphasized and perceived as important and desirable; see Rokeach, 1979; Schwartz, 1992, 1994). In a more macro or anthropological aspect, a culture, thus, involves not only ecological conditions and historical backgrounds but also religious/philosophical traditions and values. That is, different historical influences, philosophical traditions, and conventions through socialization shape different cultural orientations, norms, and values (Kluckhohn, 1951; Rokeach, 1973; Simmel, 1917; Whiting & Whiting, 1975; Williams, 1968), which become standards for judgments and behaviors of people living in the

culture. For example, early (age 9-12) and late (age 15-18) adolescents from six different ethnic groups in two different countries (native Germans, Turkish, and former Soviet Union immigrants in Germany and native Israelis, former Soviet Union immigrants, Arab Israelis in Israel) showed that the association between the value (hierarchy beliefs vs. egalitarianism) shared by one's own cultural group and negative attitudes toward outgroups was stronger at the cultural group level than at individual level, and the effect was greater for the older group than the younger group (Schiefer et al., 2010). Culture, thus, can be more broadly defined as a dynamic system in which all of these psychological, situational, and anthropological factors interact with each other.

In psychology, research on culture in the 1960s and 1970s focused on describing national characteristics or values. More recently, while interest in this issue has continued, the field has also been emphasizing the influence of culture on psychological processes, such as cultural differences in perception, attribution, motivation, or emotion (see Kitayama & Cohen, 2007). Currently, research is also investigating how these differences are associated with differences in brain activity (see Chiao & Ambady, 2007).

Methodologically, the term, *cultural psychology* is used for the research on culture in psychology in general, but it is also used for the research that focuses on one culture using ethnographic methods. *Indigenous psychology* focuses on core concepts or phenomena that exist only in a specific geographical area only during a specific time period. *Cross-cultural psychology* uses samples from different cultures and examines similarities and differences between the cultures. Each of these three approaches has both advantages and disadvantages. Cultural psychology provides in-depth knowledge about a particular culture but, because the interpretation of findings relies solely on data

from one culture, the conclusions may be limited in generalizability. Indigenous psychology is particularly useful to understand a specific problem or phenomenon that has not been observed in other areas or in other time periods. However, because the research focus is limited in a problem or phenomenon that temporarily exists only one specific area, the findings may not be applicable to other areas or in other time periods. Cross-cultural psychology provides more comprehensive knowledge, compared to cultural psychology, based on both similarities and differences between cultures and illuminates processes that operate pan-culturally or are culture-specific. However, conducting cross-cultural research requires cross-cultural equivalence in measurement procedure (i.e., *measurement invariance*, see Byrne, 2008; Chen, 2008) in order to avoid methodological biases that can invalidate results. For example, a concept can have different meanings across cultures (e.g., “being individualistic” mean a normal and positive quality in an individual-oriented North American country but can mean “being self-centered” with a negative connotation in a group-oriented East Asian country), and a certain concept (e.g., “filial piety”) is concerned more in certain cultures than other cultures. Thus, cross-cultural psychology requires demonstration of the equivalence of a measure in its meaning across cultures to interpret findings on the measure correctly. The perspectives of cultural, indigenous, and cross-cultural psychology can offer complementary insights. Triandis (2000) suggested that cross-cultural comparison based on the knowledge established by work in cultural psychology represents an ideal approach.

## **Cultural Differences**

Much of the research in cultural and cross-cultural psychology has identified fundamental dimensions on which cultures systematically differ in ways that influence relations within and between groups. In this section, I review two related dimensions of cultures: (a) individualism versus collectivism and (b) individual- versus group-orientations. I also consider the origins of these cultural dimensions, on which Western or Northern European and East Asian cultures substantially differ.

**Individualism versus collectivism.** In the previous research in both cultural and cross-cultural psychology, one of the most widely studied topics is individualism versus collectivism (first defined by Hofstede, 1980, 1991; see also Kitayama & Cohen, 2007; Nisbett, 2003). Individualism and collectivism refer to the ways in which people relate with others and social environments. Triandis (1995) initially defined individualism as “a social pattern that consists of loosely linked individuals who view themselves as independent of collectives; are primarily motivated by their own preference, needs, rights, and the contracts they have established with others; give priority to their personal goals over the goals of others; and emphasize rational analyses of the advantages and disadvantages to associating with others” (p. 2). He also defined collectivism as “a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, co-workers, tribe, nation); are primarily motivated by the norms of and duties imposed by those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives” (p. 2). Triandis’s initial definitions helped have preliminary understanding that becomes the base of many following research on

individualism and collectivism. Triandis (2007) later defined individualism as a cultural syndrome in which the individual is the basic unit of societal structure and the value of individual happiness is supported, and collectivism as a cultural syndrome in which the group is the basic unit and the value of preservation and enhancement of group resources is supported.

Systematic differences between individualistic and collectivistic cultures have been found in various areas in social psychology including the self-concept (e.g., independence vs. interdependence, Markus & Kitayama, 1991), cognitive processes (e.g., analytic vs. holistic cognition, Nisbett, Peng, Choi, & Norenzayan, 2001), perception (e.g., the difference in the field-dependency, Masuda & Nisbett, 2001), attribution (e.g., attribution to person vs. situation, Choi, Nisbett, & Norenzayan, 1999; Morris & Peng, 1994), motivation (e.g., the difference in the self-enhancement motivation, Heine, Lehman, Markus, & Kitayama, 1999), and emotion (e.g., guilty vs. shame, Markus & Kitayama, 1994). Western European (particularly Northern European/North American) and East Asian countries have been identified as most representative individualistic and collectivistic cultures, respectively. Because of the fundamental differences in psychological orientations between Western European (and North American) and East Asian cultures, work in cross-cultural psychology notes that theories and principles developed in the Western European cultures may not uniformly reflect those of non-Western cultures (see Heine, 2010; Henrich, Heine, & Norenzayan, 2010; Markus, Kitayama, & Heiman, 1998).

**The origins and backgrounds.** The distinct differences between Western or Northern European and East Asian cultures are hypothesized to originate from ecological

conditions of ancient Greek and Chinese cultures. According to Berry (1994) and Nisbett (2003), because of ecological conditions that facilitated maritime trade, ancient Greek culture emphasized individuals' personal choices and efforts to succeed in trading and developed monetary values that are useful in exchanging goods. By contrast, because the ecological conditions were more suitable for agriculture, ancient Chinese culture stressed cooperation with others as a group to harvest more and encouraged attention to relationships within the group. Berry and Nisbett each explained that when these lifestyle patterns are repeated for hundreds and thousands of years, these lifestyle patterns become the base of the core values of corresponding culture. These core values also provide the foundation of religious or philosophical traditions and the religious or philosophical traditions enhance the core values again establishing more stable norms and values of each culture.

In countries with the Western or Northern European heritage (such as Canada, Finland, Germany, Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States), the Protestant Ethic has been a dominant philosophical tradition. Protestantism, established by Martin Luther (1483-1546), is a branch of Judeo-Christianity beliefs that began in Germany in the 16<sup>th</sup> century in protest to aspects of the medieval Catholic traditions. Protestantism was developed into many denominations but commonly emphasizes that the salvation should be based solely on the beliefs in the Bible, Christ, grace, faith, and God. Max Weber (1905/2008) argued that the Calvinist (John Calvin, 1509-1564, a major denomination of Protestantism) value of calling (a belief in which one's vocation is from God; the religious pursuit of wealth) provided the rationalization of the pursuit of economic gain and consequently led to the development

of capitalism in the Protestant regions, such as countries with Western or Northern European heritage. Psychological evidence has revealed that the Protestant Ethic is associated with personal diligence and responsibilities and encourages personal achievements including individual wealth (Heaven, 1990; Katz & Hass, 1988; Quinn & Croker, 1999; Rokeach, 1973).

Meritocracy beliefs of the countries with the Western or Northern European heritage also emphasize values similar to those highlighted in the Protestant Ethic (Sidanius & Pratto, 1999). Initially, meritocracy (Young, 1958) referred to an ideology that people should gain their social status based on their intellectual merits; it contrasted with aristocracy beliefs, in which people's status was given by birth. In modern societies, meritocracy is regarded as a belief in which individuals who have more talents and/or give more efforts (consequently achieve more) deserve more rewards (e.g., higher socio-economic status) (Major, Kaiser, O'Brien, & McCoy, 2007).

Although the Protestant Ethic and meritocracy beliefs seem to originate from different sources, they are the core norms and values of the particular geographical regions and have the common emphasis on personal achievements. The difference between the two is that the Protestant Ethic is based on the religious pursuit of wealth and is more closely related to capitalistic achievements, whereas meritocracy beliefs are more general and nonreligious norms and values relating to individual competence and achieved social status. The emphasis on achieved socio-economic status in the countries with the Western or Northern European heritage may thus be rooted in a combination of the Protestant Ethic and meritocracy beliefs.

The Protestant Ethic and meritocracy beliefs, however, can be used to legitimate the position of dominant group or to justify the status quo by assuming that dominant groups deserve the high status because they are more talented and/or diligent than the lower status groups without considering other systematic problems. For example, Social Dominance Theory (Sidanius & Pratto, 1999) explains that dominant groups use beliefs (e.g., the Protestant Ethic and meritocracy beliefs in the US) that can justify their dominant positions within the society. System Justification Theory (Jost & Banaji, 1994; Jost, Banji, & Nosek, 2004) also discusses that both advantaged and disadvantaged groups use stereotypes on different status groups (e.g., the low socioeconomic status groups do not deserve to be rewarded because they are not competent enough to earn it) in order to justify the status quo and support the legitimacy of the existing social order. Also, the low-status group members who endorse a meritocracy worldview (e.g., “anyone who works hard can get ahead and succeed”) report lower self-esteem than those who do not endorse meritocracy worldview when they perceived discrimination against their own group (Major et al., 2007). This tendency of dominant groups to legitimate their dominant position using norms and values of the culture is universal across cultures (Sidanius & Pratto, 1999), but dominant groups in different cultures use different norms and values (i.e., norms/values that are most acceptable in their culture to justify their dominant position more easily). Dominant groups in the countries with the Western or Northern European heritage, for example, generally use the Protestant Ethic and meritocracy beliefs to justify their dominant status.

In East Asian countries, such as China, Japan, Korea, Taiwan, and Vietnam, Confucianism and Buddhism have played important roles in shaping cultural norms and



values. Confucianism (Confucius, 551-478 BC, see Tu, 1998a) has been a major philosophical tradition since about the 4th century, and Confucian values still permeate various facets of modern East Asian societies (Cha, 1994; Kim, 1994). For example, although 33.42% of South Koreans identified themselves as a “Christian” as the largest religious group in South Korea in 2010

([http://www.thearda.com/internationalData/countries/Country\\_124\\_1.asp](http://www.thearda.com/internationalData/countries/Country_124_1.asp)) and younger generations are increasingly westernized, Confucian traditions are reflected in many current public norms and conventions (see Cho, K., 2007) including norms and convention within Christian communities (e.g., pastors have the highest position within the church community and hierarchies within the community are emphasized).

Confucianism focuses on how people should be related with each other. Confucianism emphasizes “humanity in relations” (rather than individual morality) and teaches that individuals’ preferences are less important than the needs of groups to which individuals belong (Gardner & Seeley, 2001). Confucianism assumes hierarchical social stratification given by birth (more systematically in the past) and emphasizes hierarchical relations within a group or community (e.g., Cho, H., 1998; Cho, K., 2007; Jordan, 1998; Lebra, 1998; Tu, 1998b; Yim, 1998). Confucianism teaches lifetime roles and duties of each class or social role within an extended family, communities, and a country, emphasizing roles/duties of the lower status (e.g., emphasize roles and duties of children rather than of parents, see Jordan, 1998). During the time in which the traditional feudal age was moved toward modern times (e.g., between the 15<sup>th</sup> and 19<sup>th</sup> centuries in Korea), Confucianism also emphasized individual’s intellectual competence, allowing individuals to gain a higher status within the class given by birth (see Kazin, Edwards, & Rothman,

2010). However, the emphasis on individual intellectual competence in Confucianism was based on a more stable and stronger value of social stratification given by birth and the emphasis on hierarchical relations (i.e., roles and duties) within the society.

Buddhism (the teachings of Buddha or “the awakened one,” around 500 BC) has also been another major religious and philosophical tradition in East Asian countries. In Buddhism, the life is deemed as full of suffering and it continues through the reincarnation of various living things. In Buddhism, thus, there is no unique and independent self-concept as in the Western culture (see Spector et al., 2002; Weisz, Rothbaum, & Blackburn, 1984); the self is a part of nature (see Mahler, 1974; Parsons & Scheider, 1974) and related with all other existences around it (see Masuda & Nisbett, 2001; Nisbett et al., 2001). The cultural difference in the perception of the self and the relation between the self and the world was also found in an empirical study. Kashima et al. (2005) found that the individual person was perceived as more agentic (having internal states of thinking, feeling, wanting, and intending) than groups (as an example of the world around oneself) in Australia, the United Kingdom, and the United States, whereas both individuals and groups were perceived as having equal level of agency in Hong Kong, Japan, and South Korea. This holistic/circular worldview and the perception of the self is as a part of (not separated from) a well-organized world in East Asian cultures (see Nisbett, 2003) leads to the emphasis of predetermined or essential qualities of people’s nature and destiny (i.e., essentialism). An emphasis on essential qualities promotes stereotyping and contributes to the legitimation of existing social inequalities as inevitable (e.g., Haslam, Bastian, Bain & Kashima, 2006; Yzerbyt, Rocher, & Schadron, 1997).

In summary, Western or Northern European and East Asian cultures have developed distinctive core cultural norms and values. Based historically on ecological conditions, Western and Northern European countries came to value an individual's personal choice and efforts, as well as wealth and capitalistic principles. The Protestant Ethic and meritocracy beliefs also helped shape these norms and values. By contrast, East Asian countries came to primarily value cooperation as a group and relations within the group. Confucianism reinforced the value of group, roles and hierarchies within the group, and the holistic/circular worldview that emphasize predetermined or essential qualities of people's nature and destiny (i.e., essentialism) helped organize relations within the groups more stably. These two distinctive sets of core cultural norms and values form the foundation for individual-oriented and group-oriented cultures.

**Individual versus group orientations.** Individual- and group-orientations are based on individualism and collectivism but are more specific. That is, the individualism versus collectivism distinction reflects multiple facets, especially for collectivism (see Ashmore, Deaux, & McLaughlin-Volpe, 2004; Brewer & Chen, 2007). For example, the interdependent self-concept can include the association of the self with other individuals (e.g., Kim, 1994; Markus & Kitayama, 1991), groups (e.g., Menon, Morris, Chiu, & Hong, 1999; Smith & Henry, 1996; Vijver & Watkins, 2006), or situations and contexts (Choi & Nisbett, 1998; Masuda & Nisbett, 2001). Among these various aspects of individualism and collectivism that have been identified, one key dimension that is most likely relevant to prejudice, an intergroup phenomenon, is individual- versus group-orientation. The research that describe characteristics of various countries has also shown that Northern European/North American and East Asian cultures are the most

representative individual- and group- oriented cultures, respectively (see Kim et al., 1994; Menon et al., 1999; Nisbett, 2003; Smith & Henry, 1996; Triandis, 1994; Vijver & Watkins, 2006).

In individual-oriented cultures, as discussed earlier, the core cultural norms and values are based on individual's personal qualities and capitalistic/meritocratic achievements. Consequently, each individual's uniqueness, independence, right, pursuit of self-interest, self-determination, self-control, and personal responsibility are emphasized (Markus & Kitayama, 1991; Markus, Mullally, & Kitayama, 1997). In addition, the value of diversity is promoted based on the emphasis of individual uniqueness and pursuit of self-interest. The self and ingroups are perceived as separate entity based on the emphasis of independence of the self and individuals have various types of ingroups based on their personal choice and interests. Also, the emphasis on individual's capitalistic/meritocratic achievements may facilitate social hierarchies providing justification for negative attitudes toward the low-status or less achieving groups, and dominant groups would use these cultural norms/values to justify their dominant status.

In group-oriented cultures, the core cultural norms and values are based on group, relations within the group, and essential qualities. Consequently, the interdependence between the self and ingroups (Smith & Henry, 1996; Vijver & Watkins, 2006), roles and hierarchies within ingroups (Slote & De Vos, 1998), conformity with ingroup norms (rather than personal attitudes, Kashima, Siegel, Tanaka, & Kashima, 1992; Kim & Markus, 1999; Smith & Bond, 1993; Williams & Sogon, 1984), and essentially/biologically-based group qualities are emphasized (see also Fiske, Kitayama,

Markus, & Nisbett, 1998; Triandis, 1994). These group-oriented norms and values help organize relations within a group more stably and facilitate group functioning. Also, the emphasis of the interdependence between the self and ingroups, relations within ingroups, and conformity with ingroup norms leads groups to be perceived as more cohesive and entitative, especially for outgroups (see Hamilton & Sherman, 1996). Also, the value of diversity tends to be considered less positively, and deviants from the majority or ingroup norms are evaluated more negatively in group- than individual-oriented cultures. In addition, in group-oriented cultures, ingroups are commonly defined based primarily on kinship or essential qualities (e.g., the same ethnic group), rather than personal choice and interests. The interdependence between the self and ingroups also leads individuals to perceive ingroup/outgroup boundaries to be less permeable (Tajfel & Turner, 1979) and view the distinction between ingroups and outgroups as more permanent and stronger (Triandis, McCusker, & Hui, 1990). The emphasis on essential qualities promotes a focus on biologically-based group characteristics, and dominant groups in these cultures are likely to use the norms and values of essential qualities to justify their dominant status.

### **Culture and Prejudice**

Prejudice is a negative attitude toward an outgroup and its members that creates or maintains hierarchical relations between the groups (Dovidio et al., 2010). However, despite social psychology's long-term emphasis on social influence and the fact that each culture and society has its own norms and values, it is surprising that cultural differences in prejudice have received relatively little attention in the field. Moreover, many of the studies that have attempted to generalize existing theories of prejudice have focused on

regional differences within a particular country (e.g., the North and South in the US; Pettigrew, 1959) or across Western European countries (e.g., Zick, Pettigrew, & Wagner, 2008). Although some research has included a broader range of countries (for example, work on the Stereotype Content Model; Cuddy et al., 2009; also Jost, Kivetz, Rubini, Guermandi, & Mosso, 2005; Pettigrew, 2001, 2003; Pratto et al., 2000, 2013), relatively little comparative research on prejudice and associated underlying processes between Western or Northern European and East Asian cultures has been conducted.

Perhaps one reason for the dearth of research on cross-cultural differences in prejudice is because the targets of prejudice substantially differ across cultures for historical, economic, and political reasons (Allport, 1954/1979; see also Dovidio, Major, & Crocker, 2000; Shin et al., 2013). Because of these distinctive influences across cultures, research on prejudice frequently reflect culture-specifically (i.e., indigenous or cultural psychologically) more urgent or immediate issues (e.g., bias expressed in terms of opposition to school busing in the US, see McConahay, 1986 or political stances related to symbolic racism in the US, see Henry & Sears, 2002). In addition, research on prejudice within a culture is typically dominated by work on groups that received the public attention historically or politically (e.g., anti-Semitism or Islamophobia in Europe; Maori in New Zealand). Thus, although there is substantial empirical interest in prejudice within a culture (Dovidio et al., 2010), research on similarities and differences in prejudice between cultures is rare.

Methodologically, social distance (psychological distance to a social group or its members) represents a fundamental manifestation of prejudice that would be well-suited to cross-cultural research. In general, individuals intentionally distance themselves from

devalued groups and their members (e.g., Kaiser & Miller, 2001). Allport (1954/1979) suggested that distancing oneself from a devalued group provides psychological benefits (e.g., self-enhancement) but it represents a basic form of prejudice against the devalued group. Also, what groups are perceived as devalued likely depend on the norms and values of the given social context that provide the standards of what is “normal,” “better,” or “more desirable.”

Bogardus (1933), who made classic contributions in this area, created a social distance scale, which forms the basis for current measures. The original social distance scale asked respondents how willing they would be to have a member of a specified group as (a) a visitor in my country, (b) a citizen in my country, (c) a co-worker, (d) a neighbor, (e) a close personal friend, and (f) a close relative by marriage (in order of greater intimacy). Social distance measures correlate with a wide range of other measures of prejudice, including measures tailored to specific target groups. For instance, social distance strongly relates to attitudes toward Blacks (e.g., Implicit-Association Test (IAT), Greenwald, McGhee, & Schwartz, 1998), homosexuals (e.g., Modern Homonegativity Scale (MHS), Morrison & Morrison, 2003) and the low-SES (e.g., Social Dominance Orientation (SDO) scale, Pratto, Sidanius, Stallworth, & Malle, 1994). Social distance has been used as a reliable measure of prejudice toward different race, gender, social class, religion, and nationality (e.g., Jackman, 1994; Triandis & Triandis, 1960) and stigmatized ingroup members (e.g., Steele, Spencer, & Aronson, 2002). Because of its fundamental relationship to prejudice and its adaptability for measuring responses to a wide range of groups, social distance is employed as one of the primary measures of prejudice in my dissertation.

In summary, my dissertation investigates how cultural differences in norms and values between individual- and group-oriented cultures have important implications for prejudice. Different norms or values can provide different bases for prejudice leading to different degrees of bias toward the same groups or affect the types of groups that are targeted for prejudice. In the subsequent chapters in this dissertation, I develop a theoretical framework for understanding prejudice cross-culturally and testing the implications empirically. Chapter 2 (Study 1) examines cultural similarities and differences in the degree of prejudice toward groups that are based on either personal qualities or essential qualities and how realistic competition is associated with prejudice toward various groups across cultures. Chapter 3 (Study 2) investigates cultural similarities and differences in the degree of supporting hierarchies that are based on either social or biological factors and how the cultural norms/values of individual achievements, the self-ingroup overlap, and roles/positions within ingroups associated with the social and biological hierarchy beliefs. Chapter 4 (Study 3) considers cultural similarities and differences in the degree of prejudice toward low SES, non-normative, racial/ethnic, and value-based groups and how the cultural norms/values of essential qualities, individual uniqueness, and conformity with norms/conventions associated with prejudice toward these four types of outgroups. Chapter 5 discusses the overall findings, consistent themes, and conclusions across the three studies and their implications.



## Chapter 2: Study 1

In Study 1, I investigated, using nationally representative data from the US and South Korea available in the World Values Survey (WVS; n.d.), whether there are cultural differences in the degree of prejudice toward the same target groups between the two countries. In particular, in the WVS, respondents are asked whether they would be willing to have as neighbors a range of groups. In previous research (Shin et al., 2013), I investigated cultural differences in prejudice between Northern European/North American (Canada, Finland, Germany, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States) and East Asian (China, South Korea, Taiwan, and Vietnam) countries in terms of attitudes toward stigmatized groups representing Goffman's (1963) distinction between stigmas based "blemishes of character" (e.g., homosexuals) and "tribal stigmas" (e.g., people of a different race). Shin et al. (2013) found that bias was greater in East Asian countries than in Northern European/North American countries for both types of stigmas, and cultural values of individual uniqueness and behavioral conformity mediated the cultural differences in prejudice. In Study 1, I examined the degree of prejudice focusing on the US (Whites) and South Korea, highly representative of individual- and group-oriented cultures, respectively, across a broader range of stigmatized groups. I also examined cultural differences in associations between competition for employment and prejudice.

In the present research, I examined social distance toward eight groups that more broadly represent social categories characterized based on a personal quality (e.g., heavy drinkers) or groups that have a relatively more entitative (i.e., more similar and cohesive)

and essential quality (e.g., people of a different race). While these groups generally correspond to Goffman's (1963) distinction between blemishes of character and tribal stigmas, I refer to these groups as *personal quality groups* and *essentially different groups*, respectively, to acknowledge historical shifts in the way some groups may be perceived and to consider cultural differences in perceptions of these groups due to different norms/values in each culture. Among various aspects of the personal and essential qualities, I focused on groups perceived as having common personal qualities that determine their group membership and groups perceived as being essentially different from the majority or typical ingroups of the society. Personal quality groups included drug addicts, heavy drinkers, people with a criminal record, and emotionally unstable people. Essentially different groups were Muslims, people of a different race, immigrants/foreign workers, and homosexuals. I note that Goffman (1963) classified homosexuals as individuals with blemishes of character, a personal quality. However, World Health Organization (WHO) officially removed homosexuality from the list of mental disorders in 1990 and widely publicized research identified potential biological predispositions in homosexuality (e.g., LeVay, 1991). Also, gay and lesbian groups have coordinated collective actions and achieved greater legal acceptance in many countries, including the US (see Marcus, 2002). Thus, I included homosexuals to essentially different groups.

I hypothesized that prejudice toward groups based on personal qualities would be greater in the US than in South Korea, because people are typically seen as responsible for their personal qualities and perceived controllability of a stigmatizing "mark" is one of the most potent predictors of bias (Dovidio et al., 2000) in individual-oriented cultures.

Because in individual-oriented cultures, personal choices, efforts, and responsibilities are emphasized (Katz & Hass, 1988; Quinn & Croker, 1999; Rokeach, 1973), stigmatized groups whose memberships are perceived as being controllable by personal choice and efforts (e.g., heavy drinkers) would become targets of greater prejudice (see Crandall & Martinez, 1996) than in group-oriented cultures.

I also hypothesized that prejudice toward groups perceived as being essentially different would be greater in South Korea than in the US, because of the greater emphasis on the holistic/essential quality (see Nisbett, 2003) and relations within ingroups (Fiske et al., 1998; Gardner & Seeley, 2001, Triandis, 1994) in group-oriented cultures. Because in group-oriented cultures, holistic/essential qualities of individuals and groups are emphasized and the relation among ingroup members is a primary concern (e.g., Brett & Gelfand, 2006), groups that are perceived as being essentially different from the majority or the typical ingroups (e.g., different ethnic groups) would likely become targets of prejudice than in individual-oriented cultures.

I also examined whether perceived realistic competition for employment, one of the well-established predictors of prejudice (see Dovidio et al., 2010), is associated with prejudice toward the eight target groups universally across cultures. I examined support for a policy favoring ingroup members over immigrants when jobs are scarce as a measure of competitive intergroup orientation. In the prejudice literature, competition typically refers to an individual's perception that another person's or another group's gain will result in a loss of resources for one's self or for one's group (Campbell, 1965; Esses, Jackson, & Armstrong, 1998; Sherif, Harvey, White, Hood, & Sherif, 1961).

Based on a range of theories, such as the Realistic Group Conflict Theory (Campbell, 1965) and the Unified Instrumental Model of Group Conflict (Esses, Jackson, Dovidio & Hodson, 2005), the perception of competition with immigrants for employment is closely associated with prejudice. However, cross-cultural comparisons on competition has found that the zero-sum competition (see Duckitt, 2005; Esses, Dovidio, Jackson, & Armstrong, 2001; Sidanius & Pratto, 1999), in which one's gain or loss equals others' complete losses or gains, is observed more in individual- than group-oriented cultures (Leung, Au, Fernandez-Dols, & Iwawaki, 1992; Leung, Bond, Carment, Krishnan, & Liebrand, 1990). Individual-oriented cultures also have a greater emphasis on equity of outcomes, whereas group-oriented cultures emphasize equality (Kashima, Siegal, Tanaka, & Isaka, 1988). In addition, the Protestant Ethic encourages the achievement of individual wealth and consequently capitalistic concerns become the core value of the US culture (Sidanius & Pratto, 1999), whereas social networks rather than maximizing economic capital are emphasized in South Korean culture (Brett & Gelfand, 2006). Thus, I hypothesized that perceived competition for employment would be more strongly and positively associated with prejudice toward more various groups in individual-oriented cultures than in group-oriented cultures.

## **Method**

**Participants.** I examined data from the World Values Survey (WVS; [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)), an international study of socio-cultural and political changes by social scientists from approximately 100 different countries. Participants were recruited by a representative sampling method from the US ( $n = 3008$  Whites) and South Korea ( $n = 3649$ ). Across the two samples, there were slightly more women

(51.5%) than men (48.5%),  $X^2 (N = 6657, df = 1) = 6.07, p = .014$ , and more women in the US (53.0%) than in South Korea (50.3%),  $X^2 (N = 6657, df = 1) = 4.83, p = .028, \phi = .027, p = .028$ . Ages ranged between 17 and 94 years ( $M = 43.44, SD = 15.81$ ). US participants ( $M = 48.16, SD = 17.42$ ) were older than South Koreans ( $M = 39.57, SD = 13.14$ ),  $t(5465.80) = 22.27, p < .001, \eta^2_p = .07$ . Education levels were coded on an 8-point WVS standardized scale from 1, “did not complete elementary education” to 8, “university with degree/higher education.” Education ranged from 1 to 8 ( $M = 5.81, SD = 1.94$ ). South Koreans ( $M = 6.18, SD = 1.80$ ) were more educated than US participants ( $M = 5.36, SD = 2.00$ ),  $t(6108.30) = -17.22, p < .001, \eta^2_p = .04$ . Income levels were coded on a 10-point WVS standardized scale. Income ranged between 1 and 10 ( $M = 5.47, SD = 2.21$ ), with US participants ( $M = 5.92, SD = 2.43$ ) having slightly higher income than South Korean participants ( $M = 5.12, SD = 1.95$ ),  $t(5203.77) = 14.09, p = .056, \eta^2_p = .03$ .

**Procedure.** The American (Gallup, 1995; Inglehart, 1999; Inglehart, Larsen, & Miller, 2006) and South Korean (Auh, 2001; Auh & Han, 1996; Auh & Han, 2005) investigators collected data through face-to-face interviews at three time points between 1994 and 2008. Responses were made available to other investigators at the World Values Survey website. I selected prejudice and competition items in addition to demographic variables for analyses.

The main dependent variable, *prejudice*, was assessed by perceived social distance toward eight target groups. The survey asked respondents whether there were any groups (from a standard list) that they “would not like to have as neighbors.” The responses were coded as 0 (“not mentioned”) or 1 (“mentioned”) for each group.

Negative responses (i.e., mentioned as a group participants would not like to have as their neighbor) reflected social distance to each target group. There was no measure of the degree of bias against the target groups. I included the eight groups that were asked at least once across the two samples and that are generally targets of prejudice across the two countries. The eight groups were people with a criminal record; people of a different race; heavy drinkers; emotionally unstable people; Muslims; immigrants/foreign workers; drug addicts; and homosexuals (presented in this order). I conducted analyses separately for each target group and for two combined group types (personal quality and essentially different groups) across and between the two cultures. The independent variable, *culture* (individual- versus group-oriented) was examined with the US and South Korean samples to test cultural differences in the degree of prejudice. In addition, perceived *competition* for employment was examined as a predictor/mediator of prejudice between the US and South Korea. One item related to feelings of competitiveness with other groups: “When jobs are scarce, employers should give priority to [US/ South Korean] people over immigrants.” The responses were coded as 1 (“disagree”), 2 (“neither”), or 3 (“agree”).

**Preliminary data on the target groups.** I collected preliminary data in the US ( $n = 27$  Whites) and South Korea ( $n = 34$ ) to assess whether the perception of membership changeability of each target group is similar across the two cultures and to explore how the target groups clustered. I first asked participants to rate each of the eight groups on “How easy or difficult is it to change the characteristics or identities of people?” from 1, “very difficult to change” to 9, “very easy to change.” Ratings on the changeability of membership would indicate the extent to which participants perceive controllability versus the essential quality of each target group. Mean ratings of the eight

target groups between the two samples were highly correlated,  $r(6) = .92, p < .001$ , and across the eight target groups, greater perceived essential quality predicted more prejudice (the mean proportions of negative responses to each target group presented in Table 1) in South Korea relative to the US,  $r(6) = -.64, p = .043$ .

I, then, conducted an exploratory factor analysis (principle component analysis) on the perceptions of membership changeability of eight target groups with varimax rotation. Across the two cultures, the exploratory factor analysis yielded two factors. One factor (eigenvalue = 1.58, 19.68% of the variance) reflected groups characterized based on a personal quality: drug addicts (loading = .84), heavy drinkers (.79), people with a criminal record (.56), and emotionally unstable people (.68). The other factor (eigenvalue = 2.60, 32.53% of the variance) reflected groups perceived as having an essential quality that is different from the characteristics of the majority or the typical ingroups (i.e., essentially different groups): immigrants/ foreign workers (.60), Muslims (.61), people of a different race (.64), and homosexuals (.64). In addition, we conducted a 2 (Culture: US vs. South Korea) x 2 (Group Type: personal quality vs. essentially different groups) mixed-model analysis of variance (ANOVA) on the mean ratings of the two group types by each participant. There was a significant main effect of Group Type,  $F(1, 59) = 58.60, p < .001, \eta^2_p = .50$ . Essentially different groups were rated as having qualities that were less amenable to change (a lower score) than personal quality groups ( $M = 3.30, SD = 1.12$  vs.  $4.83, SD = 1.31$ ). There was no main effect of Culture ( $p = .419, \eta^2_p = .01$ ) and no Culture x Group Type interaction ( $p = .627, \eta^2_p = .004$ ).

The main analyses were thus based on the two clusters of groups: (a) personal quality groups (drug addicts, heavy drinkers, people with a criminal record, and

emotionally unstable people) and (b) essentially different groups (Muslims, people of a different race, immigrants/foreign workers, and homosexuals).

There were some missing data. For the US sample, “people with a criminal record,” “emotionally unstable people” and “Muslims” were not asked in 2006. For South Koreans, “people of a different race” was not asked in 1996; “Muslims” was not asked in 1996 and 2005; and “people with a criminal record” and “emotionally unstable people” were not asked in 2005. The three waves were combined to include more target groups. There was no systematic missing data for competition across the two samples.

## **Results**

For Study 1, I first tested cultural differences between the US and South Korea in the degree of prejudice (assessed by social distance) against the eight target groups individually and by two types. I then examined cultural differences in the hypothesized mediator of bias, perceived competition for employment.

**Cultural differences in the degree of prejudice.** Table 1 presents cultural differences in proportions of negative responses (mentioned as a group participants would not like to have as their neighbor) to each of the eight target groups between the US and South Korea. The negative response to each target group was interpreted as the degree of perceived social distance to each target group. As predicted, US participants perceived greater distance to personal quality groups (drug addicts, heavy drinkers, people with a criminal record, and emotionally unstable people) than South Korean participants, whereas South Korean participants perceived greater distance to essentially different groups (Muslims, people of a different race, immigrants/foreign workers, and homosexuals) than US participants. All differences were statistically significant ( $p <$



.001) and the differences remained significant when they were controlled for gender, age, education, and income.

I, then, conducted a 2 (Culture: US vs. South Korea) x 2 (Group Type: personal quality vs. essentially different groups) mixed-model analysis of variance (ANOVA) on the mean proportions of negative responses (perceived social distance) to the two types of groups by each participant. There was a significant main effect of Culture,  $F(1, 6649) = 323.71, p < .001, \eta^2_p = .05$ . Across the two types of target groups, South Korean participants ( $M = .54, SD = .34$ ) perceived greater distance than US participants ( $M = .42, SD = .21$ ). There was a significant main effect of Group Type,  $F(1, 6649) = 3900.60, p < .001, \eta^2_p = .37$ . Across the two cultures, the distance to personal quality groups ( $M = .64, SD = .38$ ) was greater than the distance to essentially different groups ( $M = .33, SD = .38$ ). Also, there was a significant Culture x Group Type interaction,  $F(1, 6649) = 1653.20, p < .001, \eta^2_p = .20$ . As hypothesized, US participants ( $M = .69, SD = .32$ ) perceived greater distance to personal quality groups than South Korean participants ( $M = .60, SD = .42$ ),  $F(1, 6651) = 89.70, p < .001, \eta^2_p = .01$ . By contrast, South Korean participants ( $M = .49, SD = .41$ ) perceived greater distance to essentially different groups than US participants ( $M = .14, SD = .24$ ),  $F(1, 6649) = 1659.95, p < .001, \eta^2_p = .20$ . The cultural difference was greater for essentially different groups ( $M = .14$  vs.  $M = .49$ ;  $\eta^2_p = .20$ ) than for personal quality groups ( $M = .69$  vs.  $M = .60$ ;  $\eta^2_p = .01$ ). Within the US, the distance was greater for personal quality groups than for essentially different groups ( $M = .69$  vs.  $M = .42$ ),  $F(1, 3004) = 6269.09, p < .001, \eta^2_p = .68$ . Within South Korea, the distance was also greater for personal quality groups than for essentially different groups ( $M = .60$  vs.  $M = .49$ ),  $F(1, 3645) = 221.50, p < .001, \eta^2_p = .06$ . The group type

difference was greater in the US ( $M = .69$  vs.  $M = .14$ ;  $\eta^2_p = .68$ ) than in South Korea ( $M = .60$  vs.  $M = .49$ ;  $\eta^2_p = .06$ ). Figure 1 shows mean proportions of negative responses (social distance) to personal quality and essentially different groups in the US and South Korea.

I also examined cultural differences in the pervasiveness of prejudice (the number of the groups a respondent did not want as a neighbor). I conducted a 2 (Culture: US vs. South Korea) x 2 (Group Type: personally quality vs. essentially different groups) mixed-model analysis of variance (ANOVA) on the number of groups mentioned by each participant. There was a significant main effect of Culture,  $F(1, 6649) = 13304.45$ ,  $p < .001$ ,  $\eta^2_p = .67$ . South Korean participants ( $M = 3.21$ ,  $SD = 2.48$ ) mentioned more groups than US participants ( $M = 2.78$ ,  $SD = 1.53$ ). There was a significant main effect of Group Type,  $F(1, 6649) = 5028.07$ ,  $p < .001$ ,  $\eta^2_p = .43$ . Participants mentioned personal quality groups ( $M = 2.02$ ,  $SD = 1.33$ ) more than essentially different groups ( $M = .99$ ,  $SD = 1.20$ ). Also, there was a significant Culture x Group Type interaction,  $F(1, 6649) = 1677.37$ ,  $p < .001$ ,  $\eta^2_p = .20$ . As hypothesized, US participants ( $M = 2.25$ ,  $SD = 1.15$ ) mentioned personally quality groups more than South Korean participants ( $M = 1.84$ ,  $SD = 1.44$ ),  $F(1, 6651) = 166.40$ ,  $p < .001$ ,  $\eta^2_p = .02$ . By contrast, South Korean participants ( $M = 1.37$ ,  $SD = 1.29$ ) mentioned essentially different groups more than US participants ( $M = .52$ ,  $SD = .90$ ),  $F(1, 6649) = 934.51$ ,  $p < .001$ ,  $\eta^2_p = .12$ . The cultural difference was greater for essentially different groups ( $M = .52$  vs.  $M = 1.37$ ;  $\eta^2_p = .12$ ) than for personally quality groups ( $M = 2.25$  vs.  $M = 1.84$ ;  $\eta^2_p = .02$ ). Within the US, participants mentioned personal quality groups more than essentially different groups ( $M = 2.25$  vs.  $M = .52$ ),  $F(1, 3004) = 4715.54$ ,  $p < .001$ ,  $\eta^2_p = .61$ . Within South Korea, participants also

mentioned personal quality groups more than essentially different groups ( $M = 1.84$  vs.  $M = 1.37$ ),  $F(1, 3645) = 600.48$ ,  $p < .001$ ,  $\eta^2_p = .14$ . The group type difference was greater in the US ( $M = 2.25$  vs.  $M = .52$ ;  $\eta^2_p = .61$ ) than in South Korea ( $M = 1.84$  vs.  $M = 1.37$ ;  $\eta^2_p = .14$ ).

**Cultural differences in the degree of norms/values.** Perceived competition for employment was higher in South Korea ( $M = 2.80$ ,  $SD = .47$ ) than in the US ( $M = 2.31$ ,  $SD = .88$ ),  $t(4293.28) = -27.27$ ,  $p < .001$ ,  $\eta^2_p = .11$ . The difference remained significant when controlled for gender, age, education, and income.

**Cultural differences in dynamics of prejudice.** To examine the relationship between perceived competition for employment and prejudice, including the potential moderating effect of culture, I conducted logistic regressions with Culture (US vs. South Korea), Competition, and their interaction (see Aiken & West, 1991) as predictors of perceived social distance to each of eight target groups (not mentioned vs. mentioned as a group they would not like to have as their neighbor). The main effect of Culture for each of the eight target groups was examined in cultural differences in the degree of prejudice (see Table 1).

Table 2 presents the main effects of Competition in the total sample and in each culture and the interaction effects of Culture x Competition for each of the eight target groups based on odds ratios and Wald statistics. The main effect of Competition was significant and positive only for essentially different groups. Across cultures, perceived competition for employment was significantly positively associated with perceived social distance to the four essentially different groups (i.e., Muslims, people of a different race, immigrants/ foreign workers, and homosexuals). Competition was significantly but

negatively associated with social distance to drug addicts. These associations remained significant when they were controlled for gender, age, education and income. There was no association between perceived competition for employment and perceived social distance to the other three personal quality groups (i.e., heavy drinkers, people of a criminal record, and emotionally unstable people).

However, I found significant Culture x Competition interactions in the opposite direction (i.e., positive associations in the US and negative/marginally significant associations in South Korea) for all groups except for Muslims and homosexuals, and these interactions remained significant when analyses controlled for gender, age, education and income. The interaction for Muslims was significant and in the opposite direction based on odds ratio but not significant based on Wald statistics. The interaction for homosexuals was significant and in the same direction (i.e., positive associations both in the US and in South Korea), but attenuated to non-significance when controlled for gender, age, education, and income.

I, then, examined associations between competition and social distance to each of eight target groups separately in the US than in South Korea. As hypothesized, in the US, associations between competition and social distance were significant and positive for all eight groups, and these associations remained significant when they were controlled for gender, age, education, and income. The association was particularly large for immigrants/foreign workers and homosexuals. In South Korea, however, associations between competition and social distance were significant and positive only in the four essentially different groups (i.e., Muslims, people with a different race, immigrants/foreign workers, and homosexuals), and these associations were much

smaller than those in the US and attenuated to marginally significance (Muslims and immigrants/foreign workers) or non-significance (people of a different race) when they were controlled for gender, age, education and income, except for homosexuals. Only the association between competition and social distance to homosexuals was significant and positive in South Korea. Moreover, competition was significantly negatively associated with social distance to the four personal quality groups (drug addicts, heavy drinkers, people with a criminal record, and emotionally unstable people) based on odds ratios, although, based on Wald statistics, the association for people with a criminal record was non-significant and the association for emotionally unstable people was marginally significant when controlling for gender, age, education, and income.

I also conducted regression analyses with Culture, Competition, and their interaction as predictors of mean negative responses (perceived social distance) to each of two types of target groups. The results were consistent with the results based on the individual target groups. Across cultures, competition did not predict social distance to personal quality groups,  $b = .01$ ,  $SE = .01$ ,  $p = .29$ ,  $B = .01$ , but predicted essentially different groups,  $b = .12$ ,  $SE = .01$ ,  $p < .001$ ,  $B = .23$ . The Culture x Competition interaction was significant for personal quality groups. The simple slope tests showed that competition predicted social distance to personal quality groups positively in the US,  $b = .12$ ,  $SE = .02$ ,  $p < .001$ ,  $B = .19$ , but negatively in South Korea,  $b = -.12$ ,  $SE = .02$ ,  $p < .001$ ,  $B = -.12$ . All significant effects remained significant when analyses controlled for gender, age, education and income. The Culture x Competition interaction was also significant for essentially different groups. The simple slope tests showed that competition marginally significantly predicted social distance to essentially different

groups positively in the US,  $b = .03$ ,  $SE = .01$ ,  $p = .055$ ,  $B = .04$ , but negatively in South Korea,  $b = -.03$ ,  $SE = .01$ ,  $p = .055$ ,  $B = -.03$ , and these results became significant when controlling for gender, age, education, and income,  $b = .03$ ,  $SE = .01$ ,  $p = .024$ ,  $B = .05$ , and  $b = -.03$ ,  $SE = .01$ ,  $p = .024$ ,  $B = -.03$ , respectively.

I, then, examined associations between competition and social distance to the two types of target groups separately in the US and in South Korea. As expected, in the US, competition predicted social distance to both personal quality and essentially different groups significantly and positively,  $b = .06$ ,  $SE = .01$ ,  $p < .001$ ,  $B = .17$ , and  $b = .06$ ,  $SE = .005$ ,  $p < .001$ ,  $B = .20$ , respectively, and these associations remained significant when they were controlled for gender, age, education, and income. In South Korea, competition predicted social distance to personal quality groups significantly negatively,  $b = -.06$ ,  $SE = .02$ ,  $p < .001$ ,  $B = -.06$ . Competition predicted social distance to essentially different groups significantly positively,  $b = .03$ ,  $SE = .01$ ,  $p = .038$ ,  $B = .04$ , but the association attenuated to non-significance when controlled for gender, age, education, and income,  $b = .02$ ,  $SE = .02$ ,  $p = .169$ ,  $B = .02$ .

## **Discussion**

Study 1 demonstrated both systematic similarities and differences in the degree of prejudice between the United States (Whites) and South Korea, countries representing individual- and group-oriented cultures. I examined two types of target groups that are relevant to prejudice, groups whose membership was based on personal qualities (drug addicts, heavy drinkers, people with a criminal record, and emotionally unstable people) and groups perceived as essentially different from the majority or typical ingroups of the

society (whose members are seen as less personally responsible for their membership; Muslims, people with a different race, immigrants/foreign workers, and homosexuals).

Based on the perceived social distance to these eight target groups, Study 1 revealed systematic differences between the US and South Korea in the degree of prejudice. White US (vs. South Korean) participants reported greater social distance to personal quality groups, whereas South Korean (vs. US) participants reported greater social distance to groups perceived as essentially different from the majority of typical ingroups. These cultural differences in the degree of prejudice were greater for essentially different groups than for personal quality groups. Across the two cultures, prejudice was greater for personal quality groups than for essentially different groups.

These findings imply that norms/values of each culture or society are closely associated with prejudice and targets of prejudice can be decided when a social group or category is perceived as being *wrong* by the standard of norms/values of the culture or society they belong to or being *different* from the majority or typical ingroups of the culture or society they belong to. These two criteria can be used in both individual- and group-oriented cultures to decide whether a group/category can be a “legitimate” target of prejudice or not. Particularly, whether a group/category is right or wrong by the standard of norms/values of the society seems to be a more universal criterion to decide who the target of prejudice can be. Across the two cultures, respondents expressed greater social distance to groups perceived as being personally responsible for their group membership than to groups perceived as essentially different from the majority or typical ingroups of the society. This is also consistent with Jones et al.’s (1984) conclusion that perceptions of controllability of a stigma is one of the most important determinants of negative

behavior toward the groups. Our results showed the cross-cultural generalizability of that conclusion. By contrast, whether a group/category is similar to or different from the majority or typical ingroups of the society can be a more important criterion to decide the target of prejudice in group-oriented cultures than in individual-oriented cultures.

Study 1 also revealed that there were cultural differences in dynamics of prejudice. As hypothesized, associations between the perception of competition for employment with immigrants and prejudice were significantly positive for all eight target groups in the US, in which capitalistic/meritocratic achievements are emphasized based on the Protestant Ethic, but not in South Korea. The perception of competition predicted prejudice toward essentially different groups in both cultures, but more strongly in the US, and competition predicted prejudice toward personal quality groups in the US, but not in South Korea. Greater associations between competition and prejudice in the US can be based on the core cultural values of the US.

The associations were particularly large for immigrants/foreign workers and homosexuals. Among the eight target groups, immigrants/foreign workers were the direct competitor for employment in the competition measure of this study. In the US, the perception of competition predicted prejudice significantly toward each of the groups but primarily toward immigrant/foreign workers (see Table 2). By contrast, in South Korea the perception of competition predicted prejudice marginally significantly toward essentially different groups – and not distinctively toward immigrant/foreign workers in this set – and not toward personal quality groups. Thus, in both the US and South Korea, these perceptions of realistic competition were associated with prejudice toward other targets (personal quality and essentially different groups in the US and essentially



different groups in South Korea). This pattern suggests that perceptions of competition may be rooted in a more general norm/value that promotes intergroup biases generally, such as social dominance (Sidanius & Pratto, 1999) or concerns for status and safety in general. Consequently, competition predicted prejudice toward groups that are not directly related to economic threat, such as homosexuals. Bias toward homosexuals typically represents symbolic threat (Stephan & Stephan, 2000). The lack of a distinctively strong relationship between perceived competition with immigrant/foreign workers compared to other essentially different groups in South Korea may reflect not only the emphasis on group-based perceptions of differences among groups in South Korea but also the fact that associations between competition and prejudice are based on a more general intergroup orientation or ideology (like social dominance orientation or concerns for status and safety), which is further accentuated by the emphasis on capitalistic/meritocratic values in the US.

Unexpectedly, stronger perceptions of competition with immigrants for employment were associated with less prejudice toward personal quality groups in South Korea. In South Korea, associations between competition for employment and prejudice were negative (i.e., greater competition was associated with *less* negative attitudes) toward personal quality groups, especially for drug addicts. This unanticipated finding may be because competition between groups deflects negative attention away from individual-level biases in group oriented cultures (i.e., biases against personal quality groups were relieved focusing on biases that are more culturally important at the group level). The higher level of competition for employment in South Korea may be because of the national financial crisis during the survey period (the International Monetary Fund

Era [1997-2001]) in South Korea or reflect high employment competition rates in many Asian countries in general.

Although the overall pattern of findings was supportive of the predictions that guided Study 1, I note some methodological and conceptual limitations of the study. One methodological limitation of Study 1 is that the World Values Survey assessed perceived competition for employment in a specific way, asking participants' agreement with the item, "When jobs are scarce, employers should give priority to [US/South Korean] people over immigrants." In general, the consequences of competition may vary depending on who competes with whom for what. However, the item used in the study not only focused on employment opportunities that are closely associated with the Protestant Ethic and capitalistic/meritocratic achievement (see Campbell, 1965; Esses, Jackson, & Armstrong, 1998) as we intended, but also had immigrants as competing targets. Having immigrants as competing targets can lead participants to focus either on the competition for employment or on the competition between our nation people and immigrants measuring threats from xenophobia or ingroup favoritism. It is also possible that other measures of competition focused more on group-level symbolic threats to the safety and wellness of ingroups could predict prejudice more strongly in group-oriented cultures. The limitation was considered in Study 2 using more specific and concrete items. In addition, the World Value Survey asked participants whether or not they were prejudiced against certain groups, but Study 2 examined the degree of intergroup bias.

Conceptually, a limitation of Study 1 involves that we measure prejudice with social distance (the unwillingness to have members of certain groups as neighbors), thus we may need to measure prejudice with a different way (e.g., hierarchy beliefs). Also, I

examined two types of groups, personal quality groups, whose membership is perceived as primarily determined by social factors, and essential quality groups, whose membership is perceived as primarily determined by biological factors and found systematic differences in the degree of prejudice toward these two types of target groups between the two culture. Thus, the distinction between groups that are based on social and biological criteria may be an important aspect of targets of prejudice with implications for different types of hierarchically-based intergroup biases. The former (being wrong by the standard of norms/values of the society) can be more related to the hierarchy beliefs that are based on the achieved social status or reputations, whereas the later (being different from the majority or typical ingroups of the society) can be more related to the hierarchy beliefs that are based on the given genetic quality or physical conditions. I thus further examined these two types of hierarchy beliefs in Study 2.

## Chapter 3: Study 2

Study 2 continued to investigate cultural differences in the degree and dynamics of prejudice (assessed by hierarchically-based intergroup biases) between individual- and group-oriented cultures, specifically the US and South Korea. However, Study 2 extended Study 1 by measuring prejudice with hierarchically-based intergroup biases and by examining other norms/values that were not examined in Study 1. I examined one variable that represents individual-oriented norms/values (the emphasis on individual achievements) and two variables that represent group-oriented norms/values (the emphasis on the self-ingroup overlap and roles/positions within ingroups) as potential predictors of hierarchically-based intergroup biases.

Also, whereas Study 1 investigated social distance to two types of groups, classified based on personal or essential qualities, Study 2 examined more general concepts of prejudice that are related to the two types of groups examined in Study 1: the support for intergroup hierarchies that are based on social or biological factors. The personal quality groups in Study 1 (e.g., heavy drinkers) are the groups defined by their social behavior (socially-based), whereas the essentially different groups (e.g., people of a different race) are the groups whose membership is perceived as less changeable or controllable than personal quality groups (biologically-based).

Social and biological hierarchy beliefs have been considered as the key components and major facets of prejudice (see Dovidio et al., 2010; Sidanius & Pratto, 1999). Social hierarchy beliefs reflects the endorsement of social order based on achieved status or social reputations (e.g., beliefs in school rankings), whereas biological hierarchy beliefs represent the support of social order based on given genetic quality or

physical conditions (e.g., beliefs in the genetic superiority/inferiority of a race or nation). These two types of hierarchy beliefs also represent two types of targets of prejudice. Social hierarchy beliefs lead to prejudice toward groups or categories that are perceived as achieving relatively less or having inferior social reputations than other groups in the society (e.g., low socio-economic status groups). Biological hierarchy beliefs lead to prejudice toward groups or categories that are perceived as having relatively inferior given genetic or essential qualities or physical conditions.

I examined social and biological hierarchy beliefs separately, not only because the distinction between the two would provide more concrete and unique associations with predictors of prejudice investigated in Study 2, but also because I can investigate how various cultural norms/values are differently associated with the perception of the achieved (socially-based) and ascribed (biologically-based) group status within societal hierarchies. I hypothesized that both social and biological hierarchy beliefs would be stronger in South Korea than in the US because of the greater emphasis on hierarchical relations in group-oriented cultures. I also hypothesized that social hierarchy beliefs would be stronger than biological hierarchy beliefs across the two cultures because of the greater emphasis on achieved status than ascribed status in general.

In addition to competition for employment (the realistic/capitalistic concern) in Study 1, I examined the emphasis on *individual achievements* (the meritocratic concern) in Study 2, another variable that represents individual-oriented norms/values. Meritocracy, an ideology based on the Protestant Ethic, emphasizes individual achievements. Meritocracy beliefs often lead individuals to overlook the influence of situational (see Gilbert & Malone, 1995; Ross, 1977) or structural factors relevant to the

current achievement status, and evaluate the socio-economically lower status negatively (making them a target of prejudice) to legitimize the position of dominant groups (Sidanius & Pratto, 1999) or justify the *status quo* (Jost et al., 2004). Thus, the emphasis on individual achievements would be more closely associated with socially-based hierarchy beliefs than biologically-based. However, the emphasis on individual achievements would directly predict prejudice particularly toward the socio-economically lower status or social hierarchy beliefs only in individual-oriented cultures, because, corresponding to their own norms/values, group-oriented cultures may not consider individual achievement much when they decide targets of prejudice. Cross-cultural research also showed that motivation to achieve personally is associated with accumulation of economic capital in most Western countries (Schwartz, 1992, 1994) and, in negotiation, the primary concern of Western cultures is maximizing economic capital; by contrast, in non-Western cultures, the dominant motive resides in social networking or relations (social or relational capital) (Brett & Gelfand, 2006). I, thus, hypothesized that the emphasis on individual achievements would directly predict social hierarchy beliefs (i.e., prejudice toward groups characterized as relatively less achieving within a hierarchy) in individual-oriented cultures but not in group-oriented cultures.

Because Study 1 suggested that, in group-oriented cultures, there would be other predictors of prejudice that are more strongly associated with prejudice than competition for employment, in Study 2, I examined two group-oriented norms/values, the emphasis on the self-ingroup overlap and roles/positions within ingroups, that would be associated with prejudice. These two group-oriented norms/values are also related to the well-known cultural differences in the self-concept, independent versus interdependent

(Markus & Kitayama, 1991), because the self-concept would reflect the most stable norms/values of the society. In this study, I elaborated on being interdependent (the self-concept of group-oriented cultures) by examining being interdependent with ingroups (the emphasis on the self-ingroup overlap) and ingroup members (the emphasis on roles/positions within ingroups) separately, because we have different predictions for each of them and for the latent factor that represents the two.

I expected that the two group-oriented norms/values would have a common latent factor, *group-oriented norms/values*. I hypothesized that this latent factor would directly predict both social and biological hierarchy beliefs in both individual- and group-oriented cultures because prejudice is an intergroup phenomenon rooted in perceptions of the self in relation to group memberships (ingroup and outgroup classifications; Tajfel & Turner, 1979). However, I also hypothesized that the associations between the latent factor that represents group-oriented norms/values and hierarchically-based intergroup biases would be greater in group-oriented than individual-oriented cultures because the greater centrality of group-oriented norms/values in group-oriented than in individual-oriented cultures.

I also expected that the emphasis on *the self-ingroup overlap* would be associated with both social and biological hierarchy beliefs in both individual- and group-oriented cultures, but indirectly, for example, as an indicator of the latent factor that represents group-oriented norms/values because of the lack of a direct relation between the two. In group-oriented cultures, the self-concept is developed based more on memberships of various ingroups or social categories (e.g., family, hometown, nation, and organization) than on individual's unique characteristics, so ingroups are perceived as the extended self

and the degree of self-ingroup overlap is greater than in individual-oriented cultures. As consequences, people in group-oriented cultures perceive the common fate with ingroups (Triandis, 1994), support ingroups' values and decisions (Cha, 1994), and frequently place primary weight on the existence and importance of groups over individuals (Gardner & Seeley, 2001) than those in individual-oriented cultures. Schaberg (2002) also found that explicitly expressing or emphasizing an individual's preference or choice in a group setting is considered "immature" or "self-centered" in group-oriented cultures. Thus, we hypothesized that the emphasis on the self-ingroup overlap would be greater in group-oriented cultures than in individual-oriented cultures. I also hypothesized that the emphasis on the self-ingroup overlap would indirectly predict both social and biological hierarchy beliefs both in individual- and group-oriented cultures (i.e., as an indicator of the latent factor that represents group-oriented norms/values in the two-factor model and in the relations with other predictors in three-factor models).

I also expected that the emphasis on *roles/positions within ingroups* would indirectly predict both social and biological hierarchy beliefs in both individual- and group-oriented cultures indirectly as an indicator of the latent factor that represents group-oriented norms/values, as discussed earlier. The emphasis on roles/positions within ingroups, however, would also directly predict both social and biological hierarchy beliefs particularly in group-oriented cultures. In general, hierarchical relations are necessary to make a group of individuals to function as a group, which is particularly important in group-oriented cultures where groups are vital units of the society. In group-oriented cultures, relationships among and with ingroup members are emphasized, so individuals tend to define self and others largely based on relations with others (e.g.,



I'm a student of Dr. Kim) emphasizing the roles or positions within a group (Naoi & Schooler, 1985), which enhance the existing hierarchies within the group. Also, because most roles/positions within a relation are not identical or equal providing some power difference between them, the emphasis on roles/positions within a relation would also induce hierarchies within the relation. These hierarchically networked relations among ingroup members may foster the endorsement of hierarchically-based intergroup biases. I hypothesized that the emphasis on roles/positions within ingroups would be greater in group-oriented than in individual-oriented cultures. I also hypothesized that the emphasis on roles/positions within groups would directly predict both social and biological hierarchy beliefs only in group-oriented cultures, because, corresponding to their own norms/values, individual-oriented cultures may not consider roles/positions within a group when they decide targets of prejudice. The emphasis on roles/positions within ingroups would also indirectly predict both social and biological hierarchy beliefs in both individual- and group-oriented cultures as an indicator of the latent factor that represents group-oriented norms/values.

Study 2, therefore, employed questionnaires that measure the tendency to emphasize (a) individual achievements, (b) the self-ingroup overlap, and (c) roles/positions within ingroups, as well as the tendency to support (d) social hierarchy beliefs and (e) biological hierarchy beliefs. I used college student samples in the US (the total sample and Whites) and South Korea. I first examined cultural differences in the degree of hierarchically-based intergroup biases. I hypothesized that both social and biological hierarchy beliefs would be greater in South Korea than in the US. I also

hypothesized that social hierarchy beliefs would be stronger than biological hierarchy beliefs across the two cultures.

I then examined cultural differences in dynamics of hierarchically-based intergroup biases proposing two structural equation models. In the two-factor model, where I examined the two latent factors that represent individual- and group-oriented norms/values as predictors of prejudice, I hypothesized that individual-oriented norms/values would directly predict social hierarchy beliefs in the US (but not in South Korea), whereas group-oriented norms/values would directly predict both social and biological hierarchy beliefs both in the US and South Korea. I also hypothesized that the associations between the group-oriented norms/values and hierarchically-based intergroup biases would be greater in South Korea than in the US. In the three-factor model, where I examined the three norms/values as predictors of prejudice, I hypothesized that the emphasis on individual-achievements would directly predict social hierarchy beliefs in the US (but not in South Korea). I also hypothesized that the emphasis on the self-ingroup overlap would only indirectly predict hierarchy beliefs both in the US and South Korea. I also hypothesized that the emphasis on roles/positions within ingroups would directly predict both social and biological hierarchy beliefs in South Korea (but not in the US).

## **Method**

**Participants.** Altogether 1010 (508 US and 502 South Korean) college students in undergraduate psychology courses participated for credits or as a class activity. The US sample was consisted of 57.5% ( $n = 292$ ) non-Hispanic European, 13.6% ( $n = 69$ ) African, 8.1% ( $n = 41$ ) East Asian, 7.3% ( $n = 37$ ) Hispanic, 5.7% ( $n = 29$ ) other Asian

Americans, 4.7% ( $n = 24$ ) were interracial/multiracial, 2.0% ( $n = 10$ ) Middle Easterner, and 0.4% ( $n = 2$ ) American Indian or Alaskan Native Americans; 0.8% ( $n = 4$ ) did not report their ethnic backgrounds. The South Korean sample was consisted of 96% ( $n = 482$ ) Koreans and 1.8% ( $n = 9$ ) non-Korean or interracial/multiracial; 2.2% ( $n = 11$ ) did not report their ethnic backgrounds. Across the two samples, 53.1% ( $n = 536$ ) were women and 35.5% ( $n = 359$ ) were men; 11.4% ( $n = 115$ ) did not report their gender. The percentage of female participants was greater in the US (64.4% female, 30.3% male, and 5.3% missing) than in South Korea (41.6% female, 40.8% male, and 17.5% missing),  $X^2$  ( $N = 895$ ,  $df = 1$ ) = 28.37,  $p < .001$ ,  $\phi = .18$ . Ages ranged from 17 to 50 years ( $M = 20.70$ ,  $SD = 2.88$ ). South Korean participants ( $M = 21.35$ ,  $SD = 3.42$ ) were older than US participants ( $M = 20.08$ ,  $SD = 2.06$ ),  $t(990) = -7.10$ ,  $p < .001$ ,  $\eta^2_p = .05$ , but they were all college students.

**Procedure.** Participants indicated the extent to which they agree with a list of statements on a 9-point scale from 1, “totally disagree” to 9, “totally agree,” and provided demographic information. To prevent participants from recognizing the purpose of the different measures and creating an acquiescence bias for specific scales, items from different scales were listed randomly with various other statements (see also Locke & Baik, 2009). The questionnaire was translated into Korean and translated back into English to avoid possible item biases in cross-cultural research.

**Predictor variables.** I proposed one individual- and two group-oriented norms/values as potential predictors of hierarchically-based intergroup biases. An exploratory factor analysis (principle component analysis) on ratings of eight items with varimax rotation yielded three factors consistently for both cultures. The first factor (US:

eigenvalue = 2.82, 35.20% of the variance / Korea: eigenvalue = 3.10, 38.81% of the variance) reflected the emphasis on individual achievements, the second factor (US: eigenvalue = 1.86, 23.25% of the variance / Korea: eigenvalue = 1.45, 18.16% of the variance) reflected the emphasis on the self-ingroup overlap, and the third factor (US: eigenvalue = .94, 11.81% of the variance / Korea: eigenvalue = .94, 11.74% of the variance) reflected the emphasis on roles/positions within ingroups. All the loadings were greater than .50. Based on the exploratory factor analysis, for later analyses, we computed three latent factor scores using principle axis factoring (PAF) in order to include measurement errors in the analyses (see Winter & Dodou, 2012). The individual-oriented norms/values, the emphasis on *individual achievements* (Cronbach's  $\alpha = .85$ ; US = .85, Korea = .84) was consisted of three items. Two group-oriented norms/values were computed based on five items (Cronbach's  $\alpha = .69$ ; US = .66, Korea = .67); the emphasis on *the self-ingroup overlap* (Cronbach's  $\alpha = .68$ ; US = .67, Korea = .67) was consisted of three items, and the emphasis on *roles/positions within ingroups* ( $r = .43$ ; US = .45, Korea = .38) was consisted of two items (see Appendix for items used).

**Outcome variables.** In order to measure hierarchically-based intergroup biases separately for the socially- and biologically-based, I created ten items guided by work on the Social Dominance Orientation scale (SDO; Pratto et al, 1994) representing concrete examples of hierarchical relations between groups based specifically on social (e.g., educational attainment, income) or biological (e.g., genetic superiority, physical inferiority) factors. An exploratory factor analysis (principle component analysis) on ratings of the ten items with varimax rotation yielded two factors in the total sample, in the US, and mostly in South Korea (one social item loaded better with the biological

factor and one biological item loaded better with the social factor in Korea). One factor (US: eigenvalue = 5.53, 55.28% of the variance / Korea: eigenvalue = 4.96, 49.64% of the variance) reflected social hierarchy beliefs and the other factor (US: eigenvalue = 1.10, 11.02% of the variance / Korea: eigenvalue = .93, 9.34% of the variance) reflected biological hierarchy beliefs. All loadings for principle components were greater than .50. Based on the exploratory factor analysis, we computed two latent factor scores using principle axis factoring (PAF) for later analyses. *Social hierarchy beliefs* (Cronbach's  $\alpha$  = .89; US = .91, Korea = .85) was consisted of five items. *Biological hierarchy beliefs* (Cronbach's  $\alpha$  = .81; US = .82, Korea = .75) was consisted of five items (see Appendix for items used).

**Preliminary data on the social-biological basis.** When I collected preliminary data in the US ( $n = 27$  Whites) and South Korea ( $n = 34$ ) to assess the membership changeability in Study 1, I also collected data to assess whether the perceptions of the social-biological basis of each target groups are similar across the two cultures. I asked participants to rate each of the eight groups on “How much are the characteristics or identities of people socially or biologically-based?” from 1, “biologically-based” to 9, “socially-based.” Mean ratings of the eight target groups between the two samples were highly correlated,  $r(6) = .92, p < .001$ , and across the eight target groups, ratings of membership changeability and the social-biological bases were also positively correlated both in the US and South Korea,  $r(6) = .76, p = .015$  and  $r(6) = .68, p = .031$ , respectively.

## **Results**

For Study 2, I first tested cultural differences between the US and South Korea in the degree of prejudice assessed by hierarchically-based intergroup biases (social and biological hierarchy beliefs). I then tested two structural equation models to examine cultural differences in dynamics between individual/group-oriented norms/values and hierarchically-based intergroup biases.

**Preliminary analyses.** To prepare structural equation modeling analyses with latent variables, we conducted missing values analyses and examined data distributions. Missing values (US = .07%, Korea = .13%) were analyzed separately for predictor and outcome variables and separately for the US and Korean samples. The missing values were missing completely at random (MCAR tests, Little, 1988) in each of these four data sets, so they were imputed using the expectation maximization (EM) algorithm (see Little & Rubin, 2002). Data distributions were examined at both univariate and multivariate levels for each factor. Most of individual indicators were significantly skewed and/or kurtotic and a few of them were considered severe at univariate level (Curren, West, Finch, 1996), but were not problematic in terms of the multivariate kurtosis (Bentler & Wu, 2002; Mardia, 1970).

I also examined gender differences for each factor. Across the cultures, the tendency to emphasize individual achievements (women:  $M = 4.89$ ,  $SD = 1.84$  / men:  $M = 5.20$ ,  $SD = 1.66$ ) and to support biological hierarchy beliefs (women:  $M = 2.61$ ,  $SD = 1.49$  / men:  $M = 3.53$ ,  $SD = 1.68$ ) were higher for men than women,  $t(818.23) = -2.61$ ,  $p = .009$ ,  $\eta^2_p = .01$  and  $t(893) = -8.59$ ,  $p < .001$ ,  $\eta^2_p = .08$ , respectively. However, individual achievements was higher for South Korean men ( $M = 5.52$ ,  $SD = 1.51$ ) than US men ( $M = 4.77$ ,  $SD = 1.75$ ),  $t(301.03) = -4.27$ ,  $p < .001$ ,  $\eta^2_p = .05$ , and higher for

South Korean women ( $M = 5.27, SD = 1.80$ ) than US women ( $M = 4.65, SD = 1.82$ ),  $t(534) = -3.82, p < .001, \eta^2_p = .03$ . Also, biological hierarchy beliefs was higher for South Korean men ( $M = 3.94, SD = 1.46$ ) than US men ( $M = 2.98, SD = 1.80$ ),  $t(287.63) = -5.41, p < .001, \eta^2_p = .08$  and higher for South Korean women ( $M = 3.31, SD = 1.38$ ) than US women ( $M = 2.17, SD = 1.39$ ),  $t(534) = -9.33, p < .001, \eta^2_p = .14$ . The results indicated that gender differences in the emphasis on individual achievements and biological hierarchy beliefs may not confound cultural differences in these variables.

**Cultural differences in the degree of prejudice.** Table 3 presents descriptive statistics and cultural differences in the degree of social and biological hierarchy beliefs between the US and South Korea, as well as between Whites in the US and Koreans in South Korea. As hypothesized, both social and biological hierarchy beliefs were stronger in South Korea than in the US. I repeated the cultural difference tests using latent factor (PAF) scores. The results were consistent with the results of cultural differences in the mean scores in terms of significance and effect size.

I also conducted a 2 (Culture: US vs. South Korea) x 2 (Belief Type: social vs. biological hierarchy beliefs) mixed-model analysis of variance (ANOVA) on the mean tendency to support two types of hierarchy beliefs by each participant. There was a significant main effect of Culture,  $F(1, 1008) = 141.13, p < .001, \eta^2_p = .12$ . Across the two types of hierarchy beliefs, South Korean participants ( $M = 3.89, SD = 1.45$ ) supported hierarchy beliefs more than US participants ( $M = 2.76, SD = 1.56$ ). There was a significant main effect of Belief Type,  $F(1, 1008) = 194.14, p < .001, \eta^2_p = .16$ . Across the two cultures, the support of social hierarchy beliefs ( $M = 3.60, SD = 1.82$ ) was greater than the support of biological hierarchy beliefs ( $M = 3.04, SD = 1.64$ ). There was also a

significant Culture x Belief Type interaction,  $F(1, 1008) = 7.50, p = .006, \eta^2_p = .007$ . The Culture difference was greater for biological ( $M = 2.42$  vs.  $M = 3.66; \eta^2_p = .14$ ) than for social ( $M = 3.09$  vs.  $M = 4.11; \eta^2_p = .08$ ) hierarchy beliefs. As hypothesized, South Korean participants supported social ( $M = 4.11$  vs.  $M = 3.09$ ) and biological ( $M = 3.66$  vs.  $M = 2.42$ ) hierarchy beliefs more than US participants. Within the US, the support of social hierarchy beliefs ( $M = 3.09$ ) were greater than biological hierarchy beliefs ( $M = 2.42$ ),  $F(1, 507) = 113.64, p < .001, \eta^2_p = .18$ . Within South Korea, the support of social hierarchy beliefs ( $M = 4.11$ ) was also greater than biological hierarchy beliefs ( $M = 3.66$ ),  $F(1, 501) = 81.22, p < .001, \eta^2_p = .14$ .

When I repeated the 2 x 2 mixed-model analysis with Whites in the US and Koreans in South Korea, the main effects of Culture ( $M = 2.82$  vs.  $M = 3.88$ ) and Belief Type ( $M = 3.60$  vs.  $M = 3.09$ ) were significant,  $F(1, 772) = 94.07, p < .001, \eta^2_p = .11$  and  $F(1, 772) = 120.14, p < .001, \eta^2_p = .14$ , respectively, and in the same direction. However, differently from the total sample, the Culture x Belief Type interaction was not significant,  $F(1, 772) = 1.30, p = .26, \eta^2_p = .002$ . The Culture differences for social ( $M = 3.10$  vs.  $M = 4.10; \eta^2_p = .08$ ) and biological ( $M = 2.54$  vs.  $M = 3.65; \eta^2_p = .11$ ) hierarchy beliefs were not significantly different from each other, because the support of biological hierarchy beliefs was greater among Whites than in the total sample of the US. However, as hypothesized, Koreans in South Korea supported both social ( $M = 4.10$  vs.  $M = 3.10$ ) and biological ( $M = 3.65$  vs.  $M = 2.54$ ) hierarchy beliefs more than Whites in the US. Among Whites in the US, the support of social hierarchy beliefs ( $M = 3.10$ ) was greater than biological hierarchy beliefs ( $M = 2.42$ ),  $F(1, 291) = 44.42, p < .001, \eta^2_p = .13$ . Among Koreans in South Korea, the support of social hierarchy beliefs ( $M = 4.10$ ) was



also greater than biological hierarchy beliefs ( $M = 3.65$ ),  $F(1, 481) = 79.47$ ,  $p < .001$ ,  $\eta^2_p = .14$ . Figure 2 shows mean social and biological hierarchy beliefs in the US and South Korea for the two sets of samples.

**Cultural differences in the degree of norms/values.** Table 3 also presents descriptive statistics and cultural differences in the degree of norms/values between the US and South Korea, as well as between Whites in the US and Koreans in South Korea. In the total samples, the emphasis on individual achievements ( $M = 4.67$  vs.  $M = 5.40$ ), the self-ingroup overlap ( $M = 4.63$  vs.  $M = 5.23$ ), roles/positions within ingroups ( $M = 4.67$  vs.  $M = 5.34$ ), and group-oriented norm/values (the mean of five group-oriented items;  $M = 4.65$  vs.  $M = 5.28$ ) were all greater in South Korea than in the US. The emphasis on individual achievements ( $M = 4.66$  vs.  $M = 5.39$ ), the self-ingroup overlap ( $M = 4.52$  vs.  $M = 5.24$ ), roles/positions within ingroups ( $M = 4.45$  vs.  $M = 5.33$ ), and group-oriented norms/values ( $M = 4.49$  vs.  $M = 5.28$ ) were also greater among Koreans in South Korea than among Whites in the US. In the US, Whites tended to show less emphasis on group-oriented norms/values than the total sample. I repeated the cultural difference tests using latent factor (PAF) scores. The results were consistent with the results of cultural differences in the mean scores in terms of significance and effect size.

**Cultural differences in dynamics of prejudice.** I examined associations between the individual- and group-oriented norms/values and hierarchically-based intergroup biases in each culture and cultural differences in these associations. To test associations among all predictor and outcome variables in a model not disregarding measurement errors in the two cultural samples, I conducted structural equation modeling (SEM) analyses with latent variables for each sample and multigroup SEM analyses

across the two samples. All SEM models were tested based on the variance-covariance matrix using LISREL 8.8 (Jöreskog & Sörbom, 2006). The Satorra-Bentler (SB) scaling method (Satorra & Bentler, 1988, 1994) was applied to estimate  $X^2$  and standard errors based on the diagnostic examination of data distributions (Finney & DiStefano, 2006) and  $X^2$  differences were tested using the SB scaled  $X^2$  difference computation procedure for LISREL 8 users (Bryant & Satorra, 2012). Model fits were evaluated based on RMSEA (Root Mean Squared Error or Approximation, Steiger, 1990; see also Breivik & Olsson, 2001; Browne & Cudeck, 1993; for SB scaled RMSEA, Nevitt & Hancock, 2000) with its 90% C.I. (Olsson, Foss & Breivik, 2004) and the close fit test (Hayduk et al., 2005; Kline, 2011) for the parsimony-adjusted fit, CFI (Comparative Fit Index, Bentler, 1990; see also Hu & Bentler, 1999) for incremental fit, and SRMR (standardized root mean squared residual; Hu & Bentler, 1999) for the absolute fit, in addition to  $X^2$  statistics. We also referred to cutoff points suggested by Chen (2007) to evaluate differences in model fit statistics in measurement invariance tests.

**Analytic strategy.** I first tested *measurement invariance* (whether measurement models are equivalent across samples, Byrne, 2008; Horn & McArdle, 1992; Jöreskog, 1971; van de Vijver & Leung, 1997). Because I hypothesized that the degree and associations of indicators for each latent factor (cultural norms/values and hierarchy beliefs) would differ between the two cultures, among various levels and types of measurement invariance, I focused on *configural invariance* (whether a common baseline model has equivalent structure and a good model fit across two samples) and *metric invariance* (whether a common baseline model has equivalent factor loadings across two samples). Because I expected that some factor loadings would differ across two cultures,

I did not remove the non-invariant items and conducted multigroup SEM analyses assuming both metric invariance (all factor loadings are constrained to be equal across two samples) and *partial metric invariance* (invariant factor loadings are constrained to be equal and non-invariant factor loadings are freed across two samples, see Byrne, Shavelson, & Muthén, 1989).

To test configural invariance, I first conducted a confirmatory factor analysis for each latent factor separately for each culture to test whether the baseline model for each latent factor is valid (show a good model fit) having common structure between the two cultures. I then conducted a multigroup SEM analysis for each latent factor simultaneously for the two cultural samples to test whether the global model has a good model fit when factor loadings and error covariance are constrained to be equal across the two samples. To test metric invariance, I conducted a series of multigroup SEM analyses for each latent factor simultaneously for the two cultural samples. I compared a global model in which all factor loadings (and error covariance if applicable) are constrained to be equal across two cultures ( $H_0$ ) to a global model in which target factor loadings are freed and other factor loadings are constrained to be equal across two cultures ( $H_1$ ) letting error variances and the factor variance be free across two cultures in both models. I, then, computed the chi-square difference and compared other model fit statistics of the two models to see whether the freed target factor loadings lead to a difference in model fits. I inferred that the target factor loadings significantly differ between the two cultures if the differences in chi-square and other model fit statistics are significant or statistically meaningful considering sample sizes and invariance patterns (see Chen, 2007; Meade & Lautenschlager, 2004).

For structural models, because the measurement models showed configural invariance and partial metric invariance, I first tested the proposed structural models (the two-factor model and the three-factor model) separately for each culture and compared the patterns of associations between the two cultures without testing whether the differences are statistically significant. In addition to this, because different degrees of measurement invariance requirement have been discussed for cross-cultural models (see Chen, 2008; Milfont & Fischer, 2010, Millsap & Kwok, 2004), I also tested the proposed structural models simultaneously across the two cultures conducting multigroup SEM analyses, with which I can infer whether the differences between the two cultures are statistically significant or not. I tested the moderating effect of culture separately for assuming metric invariance and assuming partial metric invariance. In both analyses, I compared a global model in which all parameter estimates are constrained to be equal across two cultures ( $H_0$ ) to a global model in which all parameter estimates (for cultural differences in overall models) or target paths are freed and other paths are constrained to be equal across two cultures ( $H_1$ ). In all  $H_1$  models, we freed all error variances, error covariances, latent factor variance, and latent factor covariances across two cultures. I then compared the two global models ( $H_0$  vs.  $H_1$ ) based on the chi-square difference. I inferred that the overall models or target paths significantly differ between the two cultures if the chi-square difference is significant.

Theoretically, I proposed two structural models as an alternative to each other. The two-factor model tested associations between two predictor factors (individual and group-oriented norms/values) and two outcome factors (social and biological hierarchy beliefs), whereas the three-factor model tested associations between three predictor

factors (the emphasis on individual achievements, the self-ingroup overlap, and roles/positions within ingroups) and the two same outcome factors. In both models, I tested all possible paths between the predictor factors and outcome factors, all possible covariance among the predictor factors, and the covariance between the two outcome factors, because we assumed that all predictors would be associated with both hierarchy beliefs at least indirectly and/or at least in one of the two cultures. I also assumed that all predictors would be associated with each other as a predictor of hierarchy beliefs at least to some degree and/or at least one of the two cultures, and that the two hierarchy beliefs would be associated with each other in both cultures. I also tested the final models only with Whites in the US and Koreans in South Korea to see whether Whites (the focal group in the US) are different from the total sample in the US in terms of the association between the norms/values and hierarchy beliefs.

*Measurement models.* Table 4a presents factor loadings and model fit statistics in the common baseline measurement models (that have equivalent structure across the two cultures) in the US and South Korea. All common baseline models showed a good model fit based on all significant factor loadings in both cultures. Table 5 presents model fit statistics of the global models in which all factor loadings and error covariances (the model configuration) are constrained to be equal across two cultures ( $H_0$ ). The model fit statistics indicated that the common baseline measurement model for each of four latent factors (individual- and group-oriented norms/values and social and biological hierarchy beliefs) is valid (configural invariance). Table 5 also presents differences in chi-squares (Bryant & Satorra, 2012) and other model fit statistics. When I consider the significance of differences, sample sizes, and invariance patterns, one factor loading of individual-

oriented norms/values, all of group-oriented norms/values, one of social hierarchy beliefs, and one of biological hierarchy beliefs were regarded as different between the two cultures. The omnibus tests (the comparison between the model in which all factor loadings are constrained to be equal and the model in which all factor loadings are freed) also indicated that the overall factor loadings for group-oriented norms/values, social hierarchy beliefs and biological hierarchy beliefs differ between the two cultures.

*Structural models.* Table 8 presents parameter estimates and model fit statistics for the two-factor and three-factor structural model in each sample in the US and South Korea. Both two-factor and three-factor structural models in each sample in the two cultures showed a good model fit. In the two-factor model, the total variance accounted by the two predictor factors were greater in South Korea than in the US for both social (13% vs. 49%) and biological (12% vs. 31%) hierarchy beliefs. In the three-factor model, the total variance accounted by the three predictor factors were also greater in South Korea than in the US for both social (15% vs. 42%) and biological (13% vs. 26%) hierarchy beliefs. Similar patterns were found in the comparison between Whites in the US and Koreans in South Korea.

Figure 3 presents standardized parameter estimates of the two-factor structural model in the US and South Korea. As hypothesized, in the US, the path from individual-oriented norms/values (based on the three individual-oriented items) to social hierarchy beliefs was significant and positive both in the total sample ( $B = .20$ ) and among Whites ( $B = .18$ ). The path from individual-oriented norms/values to biological hierarchy beliefs was also significant and positive, but only in the total sample ( $B = .14$  vs.  $B = .05$ ). In South Korea, the paths from individual-oriented norms/values to both social ( $B = -.14$  in

the total sample) and biological ( $B = -.11$  in the total sample) hierarchy beliefs were not significant in both samples.

The paths from group-oriented norms/values (based on the five group-oriented items) to both social and biological hierarchy beliefs were significant and positive in all four samples. As hypothesized, the paths from group-oriented norms/values to social ( $B = .23$  vs.  $B = .77$ ) and biological ( $B = .26$  vs.  $B = .62$ ) hierarchy beliefs were greater in South Korea than in the US. In addition, the covariance between the two predictor factors was greater in South Korea ( $B = .61$ ) than in the US ( $B = .47$ ), and Whites in the US showed the least covariance ( $B = .37$ ) among the four samples. The covariance between the two hierarchy beliefs was similar (the range from  $B = .59$  to  $B = .64$ ) across the four samples.

Figure 4 presents standardized parameter estimates of the three-factor structural model in the US and South Korea. As hypothesized, in the US, the path from individual achievements to social hierarchy beliefs was significant and positive both in the total sample ( $B = .21$ ) and among Whites ( $B = .19$ ). The path from individual achievements to biological hierarchy beliefs was also significant and positive, but only in the total sample ( $B = .14$  vs.  $B = .04$ ). In South Korea, the paths from individual achievements to both social ( $B = -.05$  in the total sample) and biological ( $B = -.04$  in the total sample) hierarchy beliefs were not significant in both samples.

As hypothesized, the self-ingroup overlap predicted hierarchy beliefs only indirectly; the paths from the self-ingroup overlap to both social and biological hierarchy beliefs were not significant in all four samples. The magnitude of parameter estimates

between the self-ingroup overlap and the two hierarchy beliefs were similar across the samples (the range from  $B = .13$  to  $B = .17$ ), except for Whites in the US ( $B = .04$ ).

The path from roles/positions within ingroups to social hierarchy beliefs, in the US, was not significant both in the total sample ( $B = .12$ ) and among Whites ( $B = .13$ ). The path from roles/positions within ingroups to biological hierarchy beliefs was also not significant in both samples in the US, but was greater among Whites ( $B = .28$ ) than in the total sample ( $B = .17$ ). In South Korea, as hypothesized, the paths from roles/positions within ingroups to social ( $B = .58$  in the total sample) and biological ( $B = .41$  in the total sample) hierarchy beliefs were significant and positive in both samples.

In addition, the covariance between individual achievements and the self-ingroup overlap was smaller in the US ( $B = .19$  in the total sample) than in South Korea ( $B = .40$  in the total sample). The covariance between individual achievements and roles/positions within ingroups was significant and positive in all four samples, but the magnitude was smaller among Whites ( $B = .40$ ) than in the total sample in the US ( $B = .50$ ) and in South Korea ( $B = .58$  in the total sample). The covariance between the two group-oriented norms/values was significant and positive in all four samples, but the magnitude was greater among Whites ( $B = .74$ ) than in the total sample in the US ( $B = .61$ ) and in South Korea ( $B = .63$  in the total sample). The covariance between the two hierarchy beliefs was also significant, positive, and similar across the four samples (the range from  $B = .60$  to  $B = .66$ ).

Table 7 presents model fit statistics of global models and the moderating effect of culture on each target parameter estimates between the US and South Korea, as well as Whites in the US and Koreans in South Korea. I tested the moderating effect of culture



separately for assuming metric invariance and assuming partial metric invariance (see analytic strategy). The chi-square differences ( $\Delta X^2$ , Bryant & Satorra, 2012) indicated that the overall models, all paths, and each target path significantly differ between the two cultures. This confirms that the overall structural models, overall associations between norms/values and hierarchy beliefs, and all of each single path are different between the two cultures, not only in terms of the pattern of magnitude and significance, but also statistically significantly.

I also tested whether the path between individual-oriented norms/values and biological hierarchy beliefs of the two-factor models and the path between individual achievements and biological hierarchy beliefs of the three-factor models differ between the total sample and Whites in the US. Although the magnitude and significance differed between the two samples when they were tested separately in single-group analyses, the chi-square differences in multigroup analyses indicated that the differences may not be statistically significant in the two factor model (metric invariance is assumed:  $\Delta X^2 (\Delta df = 37) = 13.64, p > .05$  / partial metric invariance is assumed:  $\Delta X^2 (\Delta df = 44) = 14.64, p > .05$ ) and in the three factor model (metric invariance is assumed:  $\Delta X^2 (\Delta df = 38) = 13.52, p > .05$  / partial metric invariance is assumed:  $\Delta X^2 (\Delta df = 44) = 14.52, p > .05$ ).

## **Discussion**

Study 2 provided empirical evidence for cultural differences in the degree of hierarchically-based intergroup biases. As hypothesized based on the cultural norms/values of group-oriented cultures that emphasize hierarchical relations within a group (see Cha, 1994; Triandis, 1994), both social and biological hierarchy beliefs were stronger in South Korea than in the US. The emphasis on the holistic/essential nature in

individuals and groups in group-oriented cultures may also lead to endorsing biological hierarchies more and perceiving existing hierarchies as pre-determined and/or permanent. Also, as hypothesized, the support of social hierarchy beliefs was greater than the support of biological hierarchy beliefs across the two cultures. The cultural difference in biological hierarchy beliefs was greater than the cultural difference in social hierarchy beliefs in the total samples, but the cultural differences in social and biological hierarchy beliefs became similar when we compared Whites in the US and Koreans in South Korea, because Whites (as a social majority in the US) supported biological hierarchy beliefs more than the total sample in the US.

In Study 1, I found that the social distance to personal quality groups was greater in the US than in South Korea, whereas the distance to groups perceived as being essentially different was greater in South Korea than in the US. However, in Study 2, the endorsement of both social and biological hierarchy beliefs was greater in South Korea than in the US. This may be because, although the emphasis on personal responsibility and social hierarchy beliefs can be closely related to each other, the target groups of Study 1 and Study 2 can be perceived differently. The target groups of Study 1 (drug addicts, heavy drinkers, people with a criminal record, and emotionally unstable people) can be perceived more likely as being wrong or problematic, whereas the potential target groups of social hierarchy beliefs in Study 2 (low-ranked schools, low-status jobs, low income people, no professional degree, and no college degree) can be perceived more likely as being incompetent. In Study 2, hierarchy itself can also be emphasized rather than the potential target groups of the hierarchy beliefs. These differences imply that the

degree of prejudice can vary to similar target groups depending on how the target groups are perceived and why.

Study 2 also demonstrated cultural differences in the dynamics of hierarchically-based intergroup biases. In particular, we investigated potential differences between the US and South Korea in the degree to which individual-oriented norms/values (the emphasis on individual achievements) and group-oriented norms/values (the emphasis on the self-ingroup overlap and roles/positions within ingroups) mediated social and biological hierarchy beliefs in the two alternative structural models (the two-factor model and the three-factor model).

Emphasis on the importance of individual achievements was higher, on average, in South Korea than in the US. This unanticipated finding may be related to the priority given to education and achievements in school in South Korea (see Im, 2011). However, as hypothesized, the emphasis on individual achievements predicted social hierarchy beliefs only in the US, where the emphasis on individual achievements is a central norm/value. The result suggests that people in the US justify their prejudice toward socially lower status groups based on central norms/values of their culture (the emphasis on personal choice, efforts, and responsibility; see Markus et al., 1997). I tested only the emphasis on individual achievements in the present study, but future research might consider both meritocratic and Protestant Ethic beliefs, norms/values that could justify the endorsement of social hierarchy beliefs in the US, particularly among Whites, the socially dominant group in the US (Major et al., 2007). Moreover, future research might consider differences in these processes among different racial and ethnic groups in the US. I found that, among Whites who comprised the substantial proportion of participants

in our sample, individual achievements predicted social hierarchy but not biological hierarchy beliefs, whereas in the total sample that includes members of other racial/ethnic groups, the path from individual achievements to biological hierarchy beliefs became significant. Although multigroup analyses indicated the differences between the two samples in the US may not be statistically significant and the greater power associated with a larger sample may explain this effect, the results also suggest that there may be variations in values and their influences among different ethnic groups in the US.

Group-oriented norms/values directly predicted both social and biological hierarchy beliefs both in the US and South Korea. This finding implies that group-oriented norms/values are general and common predictors of hierarchically-based intergroup biases across the two cultures. That is, even in individual-oriented cultures, any social context that emphasizes group-oriented norms/values can encourage people to endorse hierarchically-based intergroup biases. The three-factor model further revealed that the component of group-oriented norms/values representing the emphasis on roles/positions within ingroups primarily accounted for the association with social and biological hierarchy beliefs; the component reflecting the emphasis on the self-ingroup overlap did not directly predict the endorsement of social or biological hierarchy beliefs either in the US or South Korea. In addition, the effects of group-oriented norms/values on hierarchy beliefs were greater in South Korea than in the US.

The individual and group-oriented norms/values examined in Study 2 were related to each other both in the US and South Korea probably as predictors of prejudice, but, overall, more closely in South Korea than in the US. This may be because, in individual-oriented cultures, the self, and thus individuals, are clearly distinguished from groups

(Brewer & Chen, 2007; Markus & Kitayama, 1991), whereas in group-oriented cultures, the self is not emphasized and the distinction between the self and ingroups are relatively less distinctive (Cha, 1994; Menon et al., 1999; Smith & Henry, 1996; Triandis, 1994; Vijver & Watkins, 2006). Also, the total variances accounted by these norms/values were also consistently greater in South Korea than in the US. This is probably because I have more group-oriented norms/values than individual-oriented norms/values in the models, and because group-oriented norms/values, which are stronger in South Korea than in the US, are more influential predictors of hierarchically-based intergroup biases than individual-oriented norms/values.

One limitation of Study 2 involves sampling. Especially studies that involve cultural norms/values, representative sampling is valuable and college students may not represent the population of a specific culture. However, because two cultural samples have similar socio-demographic backgrounds, the findings of this study may still be informative and meaningful. I also note that the measures I introduced in Study 2 may require further validation. I used only two or three items to compute a latent factor for each norm/value and some statements can measure more than one concept we proposed. For example, the measure of individual achievements can measure emphasizing “individual” achievement or emphasizing individual “achievements.” Nevertheless, we believe that the different aspects we studied appeared to coherently reflect individual- and group-oriented norms/values.

## Chapter 4: Study 3

Study 3 investigated cultural differences in the degree and dynamics of prejudice (assessed by social distance) between individual- and group-oriented cultures, the US and South Korea, respectively, with a more comprehensive set of target groups (low-SES groups, non-normative groups, racial/ethnic, and value-based) and individual/group-oriented norms/values (the emphasis on essentialism, individual uniqueness, and conformity with norms/conventions) that are not examined in the previous studies.

In Study 1 and Study 2, I focused on two general types of prejudice. One is based on personal qualities (Study 1) or the endorsement of social order based on achieved status or social reputations (Study 2). The other is based on essential qualities (Study 1) or the support of social order based on given genetic qualities or physical conditions (Study 2). I assumed that the focus on the personal quality or (personally) achieved status or reputation is a more individually oriented perspective that is more closely related with individual-oriented norms/values such as the emphasis on individual's capitalistic/meritocratic achievements (based on the Protestant Ethic) of individual-oriented cultures. I also assumed that the focus on essential quality or given genetic/physical conditions is relatively more group-oriented perspective that helps a group function as a group. That is, in order for a group to function as a group, the group needs stably organized systems or relations among group members (based on the emphasis on relations in Confucianism, see Gardner & Seeley, 2001). This leads to focusing more on essentially or naturally given qualities and focusing more on essentially or naturally given qualities also help the group has a more stably organized system or relations among the group members (based on the holistic/circular worldview in East

Asian cultures, see Nisbett, 2003). Study 3, thus, investigated the influence of essentialism on the four types of target groups, in addition to the emphasis on individual uniqueness and conformity with norms/conventions, other representative individual- and group-oriented norms/values that are not directly examined in the previous studies.

The results of Study 1 and Study 2 indicated that prejudice that is based on personal qualities or achieved status/reputations is consistently greater than the one based on essential qualities or given genetic/physical conditions in both individual- and group-oriented cultures. Based on this finding, we predicted that low-SES groups (groups characterized as poor and uneducated) would be one of the most vulnerable target groups of prejudice in both cultures and particularly for individual-oriented cultures in which the core cultural value focuses on individual's personal choice and the consequent individual achievements. I hypothesized that prejudice toward low-SES groups would be greater in the US than in South Korea. Another highly vulnerable target group is non-normative groups (groups characterized as different from the majority or typical ingroups of the society). Whether a group is normative or non-normative is determined based on the current norms/values of the society, thus concrete examples of non-normative groups would vary across different eras and different cultures. However, once a group is perceived as non-normative, the group would more likely be a target of prejudice in group- (vs. individual-) oriented cultures in which conformity with norms/conventions are emphasized. I hypothesized that prejudice toward non-normative groups would be greater in South Korea than in the US. Racial/ethnic outgroups are relatively more obvious outgroups because of the visible differences, but, usually, prejudice toward racial/ethnic outgroups are not directly or explicitly displayed because of the lack of

justifications (i.e., being different is not enough to express negative attitudes in a social setting). However, prejudice toward racial/ethnic outgroups can more frequently be expressed in group-oriented cultures where essential qualities are emphasized. I hypothesized that prejudice toward racial/ethnic outgroups would be greater in South Korea than in the US. In addition, I included value-based outgroups, the group of people who has different views of value, for example, in political or religious issues. However, I predicted that the distinction between individual- and group-orientations would not directly relate to prejudice toward value-based outgroups.

I also predicted cultural differences in associations among the four types of target groups. In individual-oriented cultures where the core cultural values emphasize personal choice and responsibility, rather than given essential qualities, low-SES and non-normative groups would more likely be perceived as having different values (i.e., the values that are different from the Protestant Ethic or traditional family values), which may less likely occur in group-oriented cultures. I hypothesized that associations of value-based outgroups with low-SES and non-normative groups would be greater in the US than in South Korea. In group-oriented cultures, values-based outgroups would be more associated with racial/ethnic outgroups, the groups that are essentially different in many ways including values. I hypothesized that the association between value-based outgroups and racial/ethnic outgroups would be greater in South Korea than in the US. Also, in both cultures, non-normative groups are usually low-SES groups of the society because it may not be easy to achieve status with their non-normative backgrounds. However, it would be more difficult for non-normative groups to achieve status in group- (vs. individual-) oriented cultures in which the core cultural values emphasize conformity



with norms and conventions of the society. I hypothesized that the association between non-normative and low SES groups would be greater in South Korea than in the US.

Study 3 also investigated cultural differences in dynamics of prejudice. In Study 1, I inferred the effects of individual- and group-oriented norms/values from the results on cultural differences in the degree of prejudice toward personal and essential quality groups. I assumed that the cultural differences in the degree of prejudice toward the two types of target groups (i.e., groups based on personal vs. essential qualities) would be due to the cultural difference in individual- or group-oriented norms/values that emphasize either personal or essential qualities. The emphasis on essential qualities (i.e., essentialism) has been known to promote stereotyping and legitimate existing social inequalities as inevitable (e.g., Haslam et al., 2006; Yzerbyt et al., 1997). Essentialism also leads to perceiving ingroups as having more human essence than outgroups (Leyens et al., 2001). In addition, when biological (vs. social) qualities of racial groups are emphasized, racial inequalities are more accepted and racial outgroups are perceived as more unrelated to the self (Williams & Eberhardt, 2008).

Some early work on essentialism (Yzerbyt, Corneille, & Estrada, 2001) discussed cultural differences in essentialism in terms of dispositional bias (fundamental attribution error, Ross, 1977; correspondence bias, Choi et al., 1999), which is in line with findings on cultural differences in the perception of the locus of control. That is, in individual-oriented cultures, people perceive the self as the locus of control and tend to explain their and other's behavior focusing on the internal self (see Spector et al., 2002; Weisz, Rothbaum, & Blackburn, 1984), whereas, in group-oriented cultures, people perceive both the self and the world as the locus of control and tend to explain their and other's

behaviors focusing relatively more on external or situational factors (Mahler, 1974; Parsons & Scheider, 1974). These cultural differences implies that, in individual-oriented cultures, people more likely recognize individual achievements and blame individual failure attributing both success and failure to the self, whereas, in group-oriented cultures, people less likely recognize individual achievements and blame individual failure attributing both success and failure to the given social/physical situations. In other words, individual-oriented cultures emphasize personal responsibility assuming the possibility to change one's status; both the self and the world are relatively more malleable and mutable. However, group-oriented cultures suggest that the locus of control is perceived as beyond the self and the self is perceived as a part of essentially predetermined and well-organized world, which leads people to focus more on essentially given qualities and to perceive a limit to change one's status. Keller (2005) also found that when essentialist information is salient, the level of prejudice and ingroup bias increased particularly for those who hold chronic essentialist beliefs (such as individuals in group-oriented cultures). In Study 3, I examined cultural differences in the effect of essentialism on prejudice toward the four types of target groups. I hypothesized that the degree of emphasis on essential qualities would be greater in South Korea than in the US, and essentialism would directly predict prejudice toward more various target groups (low SES, non-normative, and racial/ethnic groups) in South Korea than in the US.

I also examined the emphasis on individual uniqueness (Markus et al., 1997) and conformity with norms/conventions (Kashima et al., 1992; Kim & Markus, 1999; Smith & Bond, 1993; Williams & Sogon, 1984), the most representative individual- and group-oriented norms/values (in addition to the emphasis on individual achievements, the self-

ingroup overlap, and roles/positions within ingroups in Study 2). In the previous research on cultural differences in stigmatization (Shin et al., 2013), I examined the value of individual uniqueness and behavioral conformity as mediators of cultural differences in prejudice toward outgroups with blemishes of character (e.g., homosexuals) and tribal outgroups (e.g., people with a different race). However, because I used preexisting data, the value of individual uniqueness and behavioral conformity was measured based on a single item for each variable (“to think up new ideas and be creative; to do things one’s own way” and “always behave properly; to avoid doing anything people would say is wrong,” respectively) and we examined two types of target groups based on Goffman’s (1963) distinction. In Study 3, I computed a latent factor for the emphasis on individual uniqueness and conformity with norms/conventions using more items and examined the associations with the four types of target groups.

I predicted that the emphasis on individual-uniqueness would directly predict less prejudice toward non-normative groups but only in individual-oriented cultures, because individual uniqueness is not a core cultural value of group-oriented cultures. I found in Study 1 and Study 2 that if a norm or value (e.g., realistic competition or the emphasis on individual achievements) is not a core cultural value of a specific culture, it does not directly predict prejudice, even when the degree to agree with the norm/value is greater. I hypothesized that the emphasis on individual uniqueness would directly predict less prejudice only in the US. I also predicted that the emphasis on conformity with norms/conventions would directly predict more prejudice toward various target groups in both cultures. The emphasis on conformity with norms/values is one of the most representative group-oriented norms/values and we found in Study 2 that group-oriented

norms/values are general and common predictors of prejudice across cultures. I predicted that, however, the effect of the emphasis on conformity with norms/values would be greater in group-oriented cultures than in individual-oriented cultures. I thus hypothesized that the emphasis on conformity with norms/conventions would be positively associated with prejudice toward various target groups both in the US and South Korea, but more consistently in South Korea.

In sum, in Study 3, I hypothesized that a) prejudice toward low-SES groups would be greater in the US than in South Korea, b) prejudice toward non-normative groups would be greater in South Korea than in the US, c) prejudice toward racial/ethnic outgroups would be greater in South Korea than in the US, d) associations of value-based outgroups with low-SES and non-normative groups would be greater in the US than in South Korea, e) the association between value-based outgroups and racial/ethnic outgroups would be greater in South Korea than in the US, f) the association between low SES and non-normative groups would be greater in South Korea than in the US, g) essentialism would predict prejudice toward more various targets (low SES, non-normative, and racial/ethnic groups) in South Korea than in the US, h) the emphasis on individual uniqueness would be negatively associated with prejudice toward non-normative groups only in the US, and i) the emphasis on conformity with norms/conventions would be positively associated with prejudice toward various target groups both in the US and South Korea, but more consistently in South Korea.

## **Method**

**Participants.** Altogether 612 (306 US and 302 South Korean) college students in undergraduate psychology courses participated for credits or as a class activity. The US

sample was consisted of 56.2% ( $n = 172$ ) non-Hispanic European, 13.1% ( $n = 40$ ) African, 8.2% ( $n = 25$ ) Hispanic, 8.2% ( $n = 25$ ) East Asian, 5.5% ( $n = 17$ ) other Asian Americans, 5.2% ( $n = 16$ ) were interracial/multiracial, 2.3% ( $n = 7$ ) Middle Easterner, and 0.3% ( $n = 1$ ) American Indian or Alaskan Native Americans; 0.7% ( $n = 2$ ) did not report their ethnic backgrounds. The South Korean sample was consisted of 94.0% ( $n = 284$ ) Koreans and 2.0% ( $n = 6$ ) non-Korean or interracial/multiracial; 4.0% ( $n = 12$ ) did not report their ethnic backgrounds. Across the two samples, 57.6% ( $n = 350$ ) were women and 31.3% ( $n = 190$ ) were men; 11.2% ( $n = 68$ ) did not report their gender. The percentage of female participants was greater in the US (68.3% female, 26.5% male, and 5.2% missing) than in South Korea (46.7% female, 36.1% male, and 17.2% missing),  $X^2(N = 540, df = 1) = 14.43, p < .001, \phi = .16$ . Ages ranged from 17 to 50 years ( $M = 21.06, SD = 3.16$ ). South Korean participants ( $M = 21.95, SD = 3.90$ ) were older than US participants ( $M = 20.21, SD = 1.91$ ),  $t(409.76) = -6.85, p < .001, \eta^2_p = .08$ , but they were all college students.

**Procedure.** Participants indicated the extent to which they agree with a list of statements (norms/values) on a 9-point scale from 1, “totally disagree” to 9, “totally agree.” They, then, indicated the extent to which they “feel distance from the target group” from 1, “very close” to 9, “very distant.” They also provided demographic information. To prevent participants from recognizing the purpose of the different measures and creating an acquiescence bias for specific scales, items of different scales were listed randomly with various other statements (see also Locke & Baik, 2009). The questionnaire was translated into Korean and translated back into English to avoid possible item biases in cross-cultural research.

**Predictor variables.** I examined one individual-oriented (the emphasis on individual uniqueness) and two group-oriented (the emphasis on conformity with norms/conventions and essentialism) norms/values as potential predictors of prejudice. The emphasis on *individual uniqueness* (Cronbach's  $\alpha = .70$ ; US = .70, Korea = .62) was consisted of four items; the emphasis on *conformity with norms/conventions* (Cronbach's  $\alpha = .81$ ; US = .80, Korea = .78) was consisted of four items; and the emphasis on essential qualities or *essentialism* ( $r = .32$ ; US = .31, Korea = .31) was consisted of two items; (see Appendix B for items used). I also conducted a principle axis factoring (PAF) analysis for each of the three norms/values in order to include measurement errors in the analyses (see Winter & Dodou, 2012). All loadings were greater than .50 in the total sample and in each culture, except for one loading to individual uniqueness item in the US (.473) and one loading to individual uniqueness item in South Korea (.451). The PAF latent factor scores were used to test cultural differences in the degree of emphasizing each norms/values.

**Outcome variables.** I examined ten individual groups (poor/unemployed/homeless, uneducated, born in a low-status country, homosexuals, born with physical/mental disability, non-Americans/Korean, immigrants to the US/Korea, people whose personal interests or tastes are different from mine, people whose opinions are different from mine in social/political/economic issues, and people whose opinions are different from mine in religious issues) as potential targets of prejudice across cultures. An exploratory factor analysis (principle component analysis) on social distance ratings of these ten target groups with varimax rotation yielded four factors in the total sample and in each culture. The first factor (Total: eigenvalue = 3.55,

35.46% of variance / US: eigenvalue = 1.66, 16.64% of the variance / Korea: eigenvalue = 3.23, 32.34% of the variance) reflected prejudice toward *low SES groups* (poor/unemployed/homeless, uneducated, and born in a low-status country / Cronbach's  $\alpha = .77$ ; US = .79, Korea = .72). The second factor (Total: eigenvalue = 1.62, 16.24% of variance / US: eigenvalue = 3.83, 38.30% of the variance / Korea: eigenvalue = 1.82, 18.22% of the variance) reflected prejudice toward *value-based outgroups* (people whose personal interests or tastes are different from mine, people whose opinions are different from mine in social/political/economic issues, and people whose opinions are different from mine in religious issues / Cronbach's  $\alpha = .76$ ; US = .77, Korea = .75). The third factor (Total: eigenvalue = 1.17, 11.73% of variance / US: eigenvalue = 1.12, 11.16% of the variance / Korea: eigenvalue = 1.15, 11.49% of the variance) reflected prejudice toward *racial/ethnic outgroups* (non-Americans/Korean and immigrants to the US/Korea /  $r = .71$ ; US = .79, Korea = .55). The fourth factor (Total: eigenvalue = 1.03, 10.30% of variance / US: eigenvalue = .93, 9.30% of the variance / Korea: eigenvalue = .96, 9.63% of the variance) reflected prejudice toward *non-normative groups* (homosexuals and born with physical/mental disability /  $r = .36$ ; US = .38, Korea = .30). I also conducted a principle axis factoring (PAF) for each of these four types of target groups (see Winter & Dodou, 2012). All loadings were greater than .50 in the total sample and in each culture. The PAF latent factor scores were used to test cultural differences in the degree of prejudice toward each type of target groups.

## **Results**

For Study 3, I first tested cultural differences between the US and South Korea in the degree of prejudice (assessed by social distance) toward four types of target groups,

as well as three individual/group-oriented norms/values. I then tested cultural differences in dynamics of prejudice toward the four types of target groups proposing two structural equation models, one for essentialism and the other for the emphasis on individual uniqueness and conformity with norms/conventions. For Study 3, I did not repeat the analyses using only Whites in the US (vs. only Koreans in South Korea) because Study 2 showed the differences between the US total sample and Whites were not significantly different.

**Preliminary analyses.** To prepare structural equation modeling analyses with latent variables, I conducted missing values analyses and examined data distributions. Missing values (US = .28%, Korea = .84%) were analyzed separately for predictor and outcome variables and separately for the US and Korean samples. The missing values were missing completely at random (MCAR tests, Little, 1988) in each of these four data sets, so they were imputed using the expectation maximization (EM) algorithm (see Little & Rubin, 2002). Data distributions were examined at both univariate and multivariate levels for each factor. Most of individual indicators were skewed and/or kurtotic, but not severe at univariate level (Curren et al., 1996) and were not problematic in terms of the multivariate kurtosis (Bentler & Wu, 2002; Mardia, 1970).

I also examined gender differences for each factor. Across the cultures, social distance to non-normative groups (women:  $M = 5.69$ ,  $SD = 1.68$  / men:  $M = 6.31$ ,  $SD = 1.54$ ) was higher for men than for women,  $t(538) = -2.44$ ,  $p = .015$ ,  $\eta^2_p = .01$ ,  $t(538) = -2.45$ ,  $p = .014$ ,  $\eta^2_p = .01$ ,  $t(538) = -3.93$ ,  $p < .001$ ,  $\eta^2_p = .03$ , and  $t(538) = -4.20$ ,  $p < .001$ ,  $\eta^2_p = .03$ , respectively. However, the social distance to non-normative groups ( $M = 6.04$  vs.  $M = 6.52$ ) was higher for South Korean men than for US men,  $t(133.83) = -3.21$ ,  $p =$



.002,  $\eta^2_p = .06$ ,  $t(188) = -6.39$ ,  $p < .001$ ,  $\eta^2_p = .18$ ,  $t(139.28) = -2.97$ ,  $p = .003$ ,  $\eta^2_p = .05$ , and  $t(188) = -2.14$ ,  $p = .033$ ,  $\eta^2_p = .02$ , respectively. The social distance to non-normative groups ( $M = 5.50$  vs.  $M = 5.98$ ) was also higher for South Korean women than for US women,  $t(341.07) = -5.14$ ,  $p < .001$ ,  $\eta^2_p = .06$ ,  $t(348) = -8.76$ ,  $p < .001$ ,  $\eta^2_p = .18$ ,  $t(331.39) = -3.64$ ,  $p < .001$ ,  $\eta^2_p = .03$ , and  $t(338.95) = -2.72$ ,  $p = .007$ ,  $\eta^2_p = .02$ , respectively. The results indicated that the gender difference in social distance to non-normative groups may not confound the cultural difference in social distance to non-normative groups.

**Cultural differences in the degree of prejudice.** Table 8 presents descriptive statistics and cultural differences in the degree of prejudice (social distance) toward four types of target groups between the US and South Korea. As hypothesized, perceived social distance to low-SES groups ( $M = 6.17$  vs.  $M = 5.73$ ) was greater in the US than in South Korea, whereas the distance to non-normative groups ( $M = 5.60$  vs.  $M = 6.23$ ) and racial/ethnic outgroups ( $M = 4.87$  vs.  $M = 5.15$ ) was greater in South Korea than in the US. The distance to value-based outgroups ( $M = 5.65$  vs.  $M = 5.69$ ) did not differ between the two cultures. I repeated the cultural difference tests using latent factor (PAF) scores. The results of mean scores and latent factor scores were similar in terms of significance and effect size. Figure 5 shows the mean social distance to the four types of target groups in the US and South Korea.

**Cultural differences in the degree of norms/values.** Table 8 also presents descriptive statistics and cultural differences in the degree of three individual/group-oriented norms/values between the US and South Korea. As predicted, the emphasis on individual uniqueness ( $M = 6.85$  vs.  $M = 6.01$ ) was greater in the US than in South Korea,

whereas the emphasis on conformity with norms/conventions ( $M = 4.72$  vs.  $M = 5.70$ ) and essentialism ( $M = 5.60$  vs.  $M = 6.13$ ) were greater in South Korea than in the US. I repeated the cultural difference tests using latent factor (PAF) scores. The results of mean scores and latent factor scores were similar in terms of significance and effect size.

### **Cultural differences in associations between the norms/values and prejudice.**

I examined associations between three individual/group-oriented norms/values and perceived social distance to four types of target groups in each culture and cultural differences in these associations. To test associations among the predictor and outcome variables in a model not disregarding measurement errors in the two cultural samples, I conducted structural equation modeling (SEM) analyses with latent variables for each sample and multigroup SEM analyses across the two samples. All SEM models were tested based on the variance-covariance matrix using LISREL 8.8 (Jöreskog & Sörbom, 2006). The Satorra-Bentler (SB) scaling method (Satorra & Bentler, 1988, 1994) was applied to estimate  $X^2$  and standard errors in structural models and the measurement models for individual uniqueness based on the diagnostic examination of data distributions (Finney & DiStefano, 2006) and  $X^2$  differences were tested using the SB scaled  $X^2$  difference computation procedure for LISREL 8 users (Bryant & Satorra, 2012). I, then, applied the analytic strategy we used in Study 2.

I proposed two structural models, one tested essentialism as a predictor factor and the other tested the emphasis on the individual uniqueness and conformity with norms/values as predictor factors. I examined the emphasis on individual uniqueness and conformity with norms/values together because the two variables are theoretically relevant. In both models, perceived social distance to each of the four types of target

groups were outcome factors. I tested all possible covariance among the four types of target groups, because I hypothesized cultural differences in associations among the target groups. I also tested all possible paths between the predictor and outcome factors, because we assumed that all predictors would be associated with prejudice at least indirectly and/or at least in one of the two cultures.

*Measurement models.* Table 9 presents factor loadings and model fit statistics in the common baseline measurement models (that have equivalent structure across the two cultures) in the US and South Korea. The common baseline models showed a good model fit based on all significant factor loadings in each culture, which indicates that the common baseline models are valid in each culture. Table 10 presents model fit statistics of the global models in which all factor loadings and error covariances (the model configuration) are constrained to be equal across two cultures ( $H_0$ ). The model fit statistics of the common baseline measurement models across two cultures were not good, which indicates that the common baseline models may not have configural invariance across two cultures. Table 10 also presents differences in chi-squares (Bryant & Satorra, 2012) and other model fit statistics. When we consider the significance of differences, sample sizes and invariance patterns (Chen, 2007), almost all factor loadings were non-invariant between two cultures. Also, model fit statistics of the models in which all factor loadings and error covariances are freed across two cultures were good and significantly different from the model fit statistics of the model in which all factor loadings and error covariances are constrained to be equal across two cultures, which indicates the common baseline model for each latent factor may not have metric

invariance across two cultures. The measurement model for essentialism was not tested because the model was under-identified.

*Structural models.* Table 11 presents parameter estimates and model fit statistics for the structural model in the US and South Korea. Both structural models (one for essentialism and the other for uniqueness-conformity) showed a good model fit in each culture. Overall, the total variances of social distance to each of the four types of target groups accounted by essentialism were consistently greater in South Korea than in the US. This indicates that essentialism, one of the core cultural values of group-oriented cultures, is a more influential predictor of prejudice in group-oriented cultures than in individual-oriented cultures. The total variances of social distance to each of the four types of target groups accounted by the emphasis on individual uniqueness and conformity with norms/conventions were slightly greater in South Korea than in the US for all target groups except one case; the total variance of social distance to non-normative groups was greater in the US than in South Korea (18% vs. 6%). This may be because both individual uniqueness and conformity with norms/conventions predict social distance to non-normative groups in the US, but only conformity with norms/conventions predicted social distance to non-normative groups in South Korea.

Figure 6 presents standardized parameter estimates of the structural model on essentialism in the US and South Korea. As hypothesized, essentialism predict social distance to low SES ( $B = .39$ ), non-normative ( $B = .42$ ), and racial/ethnic ( $B = .38$ ) groups in South Korea, but predicted only social distance to low SES ( $B = .26$ ) groups in the US. Figure 7 presents standardized parameter estimates of the structural model on individual uniqueness and conformity with norms/conventions in the US and South

Korea. As hypothesized, the emphasis on individual uniqueness predicted less social distance to non-normative groups ( $B = -.22$ ) only in the US. The emphasis on conformity with norms/conventions predicted more social distance to low SES ( $B = .26$ ), non-normative ( $B = .33$ ), and value-based ( $B = .21$ ) groups in the US and predicted low SES ( $B = .25$ ), non-normative ( $B = .23$ ), racial/ethnic ( $B = .18$ ), and value-based ( $B = .24$ ) groups in South Korea.

In both models, as hypothesized, associations of value-based outgroups with low-SES ( $B = .49$  vs.  $B = .17$  in the essentialism model and  $B = .44$  vs.  $B = .17$  in the uniqueness-conformity model) and non-normative ( $B = .45$  vs.  $B = .19$  in the essentialism model and  $B = .39$  vs.  $B = .21$  in the uniqueness-conformity model) groups were greater in the US than in South Korea. The association between value-based outgroups and racial/ethnic outgroups was greater in South Korea than in the US ( $B = .18$  vs.  $B = .43$  in the essentialism model and  $B = .17$  vs.  $B = .47$  in the uniqueness-conformity model). The association between low SES and non-normative groups was also greater in South Korea than in the US ( $B = .60$  vs.  $B = .71$  in the essentialism model and  $B = .58$  vs.  $B = .81$  in the uniqueness-conformity model).

Table 12 presents model fit statistics of global models and the moderating effect of culture on each target parameter estimates between the US and South Korea. All variant factor loadings are freed across the samples based on the measurement invariance tests. The chi-square differences (Bryant & Satorra, 2012) indicated that the overall models and each target parameter estimates (including all hypothesized cultural differences) significantly differ between the two cultures.

## **Discussion**

Study 3 showed empirical evidence for cultural differences in the degree of prejudice toward a more comprehensive set of target groups. As hypothesized based on the known norms/values of each culture and findings of Study 1 and Study 2 (e.g., the emphasis on personal responsibility, capitalistic/meritocratic achievements, and individual uniqueness in individual-oriented cultures vs. the emphasis on essential qualities and conformity with norms/conventions in group-oriented cultures), prejudice toward low-SES groups was greater in the US than in South Korea, whereas prejudice toward non-normative and racial/ethnic groups was greater in South Korea than in the US.

As expected, low-SES groups (groups characterized as poor and uneducated) were one of the most vulnerable targets of prejudice particularly for individual-oriented cultures in which the core cultural norm/value focuses on individual's personal choice and capitalistic/meritocratic achievements. Prejudice toward low SES group was also the greatest among the four types of target groups within the US. It suggests that if a target of prejudice has a low status (e.g., Blacks with a low SES), prejudice toward the target group would be harsher than when the target has a high status (e.g., Blacks with a high SES). I also found that the association between prejudice toward low-SES groups and prejudice toward value-based outgroups were greater in the US than in South Korea (prejudice toward value-based outgroups was more associated with prejudice toward racial/ethnic outgroups in South Korea). This implies that low SES groups are more likely perceived as having different values (e.g., values that are different from the Protestant Ethic). In addition, overall associations among the prejudice toward each of

the four types of target groups were consistently greater in the US than in South Korea in both structural models. This suggests that there are more chances for a target of prejudice to have all or some of the four types simultaneously (e.g., low-status ethnic/racial outgroups who have different norms/values) in the US than in South Korea.

In group-oriented cultures, non-normative groups (groups characterized as different from the majority or typical ingroups of the society) can be the most vulnerable targets of prejudice. Prejudice toward non-normative groups was the greatest among the four types of target groups within South Korea. I also found that the association between low SES and non-normative groups was greater in South Korea than in the US. This probably because being different from the majority makes achieving a high status more difficult in group-oriented cultures in which core cultural norms/values emphasize conformity with norms/values.

Study 3 also examined cultural differences in the dynamics of prejudice. As hypothesized, essentialism, a core cultural norm/value of group-oriented cultures, predicted more various types of target groups, including racial/ethnic outgroups, in South Korea than in the US. The emphasis on individual uniqueness, a core cultural norm/value of individual-oriented cultures, predicted prejudice toward non-normative groups only in the US and did not predicted prejudice in South Korea, even when the degree to agree with individual uniqueness was slightly higher than the degree to agree with conformity with norms/conventions within South Korea. This implies that, as we found in Study 1 (perceived competition for employment) and Study 2 (the emphasis on individual achievements), the degree to agree with certain norms/values does not always mean the norms/values are the core norms/values of the culture and only the core norms/values are

associated with prejudice toward predicted target groups. The emphasis on conformity with norms/conventions, one of the most representative group-oriented norms/values, predicted prejudice toward various types of target groups both in the US and South Korea, as a general and common predictor of prejudice across cultures.



## Chapter 5: General Discussion

The present research demonstrated cultural similarities and differences in prejudice between individual- and group-oriented cultures. As expected, prejudice was prevalent in both cultures. Social distance to groups perceived as being personally responsible and essentially different (Study 1), social and biological hierarchy beliefs (Study 2), and social distance to low SES, non-normative, racial/ethnic, and value-based groups (Study 3) were observed in both cultures. I also found that group-oriented norms/values (Study 2) and specifically the emphasis on roles/positions within ingroups (Study 2) and conformity with norms/conventions (Study 3) are common predictors of prejudice across the two cultures. In addition, individuals in both cultures expressed their prejudice more understandably and explicitly when the norms/values of their culture or society provided a basis to justify their prejudice (Study 1, 2, & 3).

However, based on the different norms/values of individual- and group-oriented cultures, the degree of prejudice toward different types of target groups varied between the two cultures. Individual-oriented cultures emphasize individual's personal choice, efforts, responsibility, thus groups perceived as personally responsible for the negative attitudes toward them (groups with a controllable membership, Study 1) and low SES groups (Study 3) were targets of prejudice more in the US than in South Korea. By contrast, because group-oriented cultures emphasize the holistic/essential nature of individuals and groups and the relationship among ingroup members, the groups perceived as essentially different from the majority or typical ingroups of the society (i.e., groups with a relatively more essential, cohesive, and permanent quality, Study 1) and other various groups (low SES, non-normative, and racial/ethnic, Study 3) were targets of

prejudice more in South Korea than in the US. Also, because group-oriented cultures emphasize hierarchical relations such as roles/positions within ingroups, both social and biological hierarchy beliefs were greater in South Korea than in the US (Study 2).

In addition, because specific norms/values are associated with specific target groups, dynamics of prejudice differed between the two cultures. Perceived competition for employment (Study 1) and the emphasis on individual achievement (Study 2) were associated with prejudice only in the US, whereas the emphasis on roles/positions within ingroups (Study 2) was associated with prejudice only in South Korea. In addition, essentialism (Study 3) was associated with prejudice more in South Korea, whereas the emphasis on individual uniqueness (Study 3) predicted only in the US. Group-oriented norms/values (Study 2) and the emphasis on conformity with norms/conventions (Study 3) were associated with prejudice in the two cultures, but more strongly in South Korea than in the US. Taken together, these findings highlighted both cultural differences and similarities in the dynamics of prejudice.

The findings across the three studies identified the most vulnerable target groups of prejudice across the two cultures and in each culture. Across the two cultures, groups perceived as being personally responsible for the prejudice and groups with lower status in a socially-based hierarchy were primary targets of prejudice. In individual-oriented cultures, groups perceived as being personally responsible or relatively less achieving (e.g., the poor or less educated) were more likely to be targets of prejudice. In group-oriented cultures, groups perceived as being essentially different or inferior/lower status in the given hierarchical relation (e.g., foreign workers from the lower status countries) were common targets of prejudice.

Our findings about the most vulnerable target groups of prejudice also suggest different ways to reduce biases toward these groups in different cultures. For example, interventions that emphasize the uncontrollability or lack of personal responsibility for a stigmatizing condition or system-blame rather than victim-blame explanations (i.e., focusing more on biological or external causes of the stigmatizing condition, Bobocel & Hafer, 2007; Jones, 1986; Weiner, 1995) would likely be effective for reducing prejudice against them in both individual- and group-oriented cultures, but particularly in individual-oriented cultures. By contrast, interventions that emphasize shared identity (Gaertner & Dovidio, 2012) through legislative measures (see Esses et al., 2001) would be a way to reduce prejudice toward different or low-status ethnic groups in in group-oriented cultures. These interventions would also be more effective if they are led by high-status leaders (because relationships are more hierarchically organized in group-oriented cultures, Cha, 1994; Triandis, 1994) or pronounced through public routes (because the tendency to conform with norms and the majority are higher in group-oriented cultures, Kashima, et al., 1992; Kim & Markus, 1999; Smith & Bond, 1993; Williams & Sogon, 1984) emphasizing the common fates and benefits they would share as members of a society.

Despite the convergent findings across the two studies employing different measures and methodologies, we acknowledge some general limitations of the current work and suggest promising directions for future research. The current work focused on two countries that were prototypic of individual- and group-oriented cultures, but future research would benefit from investigating a wider range of national samples to address differences between individual- and group oriented cultures. Also, although Study 2 and

3 employed causal modeling analytic techniques, both of the current studies used cross-sectional survey designs, which limit the ability to draw firm causal inferences. Although culturally internalized norms/values may not be easily manipulated entirely in their naturalistic form, it is possible to prime individual or collective self-concepts in experimental contexts (Brewer & Gardner, 1996). Gardner, Gabriel, and Lee (1999), for example, demonstrated that priming students in the US and Hong Kong with independent or interdependent self-construal produced within-culture shifts in judgments that corresponded to between-culture differences. Thus, future research might investigate how priming of cultural norms/values predicts prejudice in an experimental setting. In addition, the current work examined either norm/value that was known as a predictor of prejudice in previous research (realistic competition) or the most representative individual- and group-oriented norms/values (the emphasis on individual achievements, individual uniqueness, the self-ingroup overlap, roles/positions within ingroups, conformity with norms/conventions, and essentialism), but future research can include other cultural norms/values that are not directly tested in the current work.

In addition, more attention could be devoted to considering other factors that vary between countries and that are known as important variables for prejudice and intergroup relations. For instance, the current work did not include measures of diversity experience or diversity support in the analysis. However, a meta-analytic review of the contact hypothesis (Pettigrew & Tropp, 2006) revealed that greater intergroup contact generally reduces prejudice. With respect to our research, the net migration rates per a thousand population of the US (3.64 in 2013) and South Korea (0 in 2013) indicate different levels of diversity experience between the countries. Thus, the greater tendency to express

prejudice toward essentially different groups (Muslims, people of a different race, immigrants/foreign workers, and homosexuals) in South Korea than in the US (Study 1) may be interpreted as the result of less contact (i.e., less familiarity) with these groups in South Korea compared to the US. Also, the greater association between competition and prejudice in the US than in South Korea (Study 1) may be related to higher rates of immigration in the US than in South Korea. That is, more contact with new immigrants in the form of competition over resources can exacerbate, rather than reduce, prejudice by emphasizing zero-sum outcomes likely more pronounced in the US than in South Korea (Esses et al., 2001). Thus, future research should consider the role of intergroup contact (in terms of both quantity and quality) as an additional factor in cultural differences in prejudice as well as cultural norms/values in the dynamics of prejudice.

In conclusion, the present dissertation suggests the value of cross-cultural research to understand prejudice more comprehensively. Different cultural backgrounds may lead individuals to endorse different types of prejudice and intergroup biases to a different extent. Studies on cultural differences in prejudice can also help identify when and where certain relationships, often assumed to be universal (e.g., competition and prejudice), hold more or less strongly. The present research demonstrated the importance of recognizing the different cultural forces that not only systematically shape the level of prejudice toward different groups but also influence the different mechanisms that may underlie intergroup bias across different cultures. Understanding prejudice in a broader cultural context illuminates both commonalities and differences in the processes that lead to intergroup bias, which produces a more comprehensive understanding of the

psychology of bias and can form the basis of culturally sensitive interventions to reduce prejudice and discrimination.

**Table 1**  
Cultural Differences in Proportions of Negative Responses (Social Distance) to the Target Groups

		United States	South Korea	$X^2$	$\emptyset$	Wald	Wald controlling for COVs <sup>1</sup>
Personal quality groups	Drug addicts	.84	.64	357.77	-.23	340.61	351.24
	Heavy drinkers	.64	.55	51.96	-.09	51.80	44.04
	People with a criminal record	.59	.49	41.34	-.10	41.21	25.33
	Emotionally unstable people	.53	.48	10.57	-.05	10.56	13.44
Essentially different groups	Muslims	.11	.57	833.90	.50	697.62	574.46
	People of a different race	.08	.34	677.47	.35	555.57	588.06
	Immigrants/foreign workers	.12	.41	711.16	.33	634.78	588.96
	Homosexuals	.27	.84	1729.93	.56	1464.81	1281.07

Note: All statistics were statistically significant,  $p < .001$ .

<sup>1</sup> Controlling for gender, age, education, and income

**Table 2**

Associations between Competition for Employment and Negative Responses (Social Distance) to Target Groups in the US and South Korea

		<u>Competition and Negative Responses</u>			Culture x Competition Interaction
		Total	US	South Korea	
Personal quality groups	Drug addicts	.79 (.72, .85) <sup>†</sup> 34.53 <sup>†</sup>	1.31 (1.30, 1.31)* 22.91*	.65 (.65, .66) <sup>†</sup> 27.24 <sup>†</sup>	.50 (.50, .50) <sup>†</sup> 49.16 <sup>†</sup>
	Heavy drinkers	1.02 (.95, 1.09) .20	1.24 (1.24, 1, 24)* 24.59*	.85 (.85, .85) <sup>†</sup> 4.93 <sup>†</sup>	.69 (.69, .69) <sup>†</sup> 19.79 <sup>†</sup>
	People with a criminal record	1.07 (.99, 1.16) 3.01	1.33 (1.33, 1.34)* 34.69*	.88 (.88, .89) <sup>†</sup> 1.79	.66 (.66, .66) <sup>†</sup> 15.73 <sup>†</sup>
	Emotionally unstable people	1.08 (1.00, 1.16) 3.52	1.28 (1.28, 1.28)* 26.08*	.81 (.81, .82) <sup>†</sup> 5.06 <sup>† 1 (p=.059)</sup>	.64 (.64, .64) <sup>†</sup> 19.19 <sup>†</sup>
Essentially different groups	Muslims	2.21 (1.96, 2.50)* 161.59*	1.55 (1.55, 1.55)* 24.47*	1.47 (1.47, 1.47)* <sup>1 (p=.055)</sup> 9.73*	.95 (.94, .95) <sup>†</sup> .13
	People of a different race	1.93 (1.72)* 120.63*	1.65 (1.64, 1.65)* 23.44*	1.23 (1.23, 1.23)* 5.14* <sup>1</sup>	.75 (.75, .75) <sup>†</sup> 4.48 <sup>†</sup>
	Immigrants/foreign workers	2.10 (1.91, 2.32)* 220.72*	2.30 (2.30, 2.30)* 81.57*	1.17 (1.17, 1.17)* 4.64* <sup>1 (p=.096)</sup>	.51 (.51, .51) <sup>†</sup> 32.66 <sup>†</sup>
	Homosexuals	2.28 (2.11, 2.47)* 425.55*	1.61 (1.61, 1.61)* 82.60*	2.00 (2.00, 2.01)* 51.82*	1.24 (1.24, 1.25)* 3.98* <sup>1</sup>

Note. Odds ratios (95% C.I.) are stated on the top line and Wald statistics are stated on the bottom line in each cell.

\* Significant and positive associations or interactions in the same direction

† Significant and negative associations or interaction in the opposite direction

<sup>1</sup> Attenuated to non-significance controlling for gender, age, education, and income



**Table 3**

Descriptive Statistics (Means &amp; SDs) and Cultural Differences in the Degree of Hierarchy Beliefs and Norms/Values between the US and South Korea

	US	Korea	Cultural differences <sup>1</sup>	US-W	KR-K	Cultural differences <sup>1</sup>
Social hierarchy beliefs	3.09 (1.85)	4.11 (1.64)	$F(1, 1008) = 85.49, p < .001, \eta^2_p = .08$	3.10 (1.73)	4.10 (1.67)	$F(1, 772) = 64.41, p < .001, \eta^2_p = .08$
			$F(1, 1008) = 79.10, p < .001, \eta^2_p = .07$			$F(1, 772) = 59.45, p < .001, \eta^2_p = .07$
Biological hierarchy beliefs	2.42 (1.58)	3.66 (1.46)	$F(1, 1008) = 167.54, p < .001, \eta^2_p = .14$	2.54 (1.57)	3.65 (1.47)	$F(1, 772) = 99.14, p < .001, \eta^2_p = .11$
			$F(1, 1008) = 139.93, p < .001, \eta^2_p = .12$			$F(1, 772) = 83.74, p < .001, \eta^2_p = .10$
Individual achievements <sup>2</sup>	4.67 (1.80)	5.40 (1.63)	$F(1, 1008) = 46.38, p < .001, \eta^2_p = .04$	4.66 (1.73)	5.39 (1.66)	$F(1, 772) = 33.60, p < .001, \eta^2_p = .04$
			$F(1, 1008) = 46.48, p < .001, \eta^2_p = .04$			$F(1, 772) = 33.99, p < .001, \eta^2_p = .04$
The self-ingroup overlap	4.63 (1.53)	5.23 (1.35)	$F(1, 1008) = 44.20, p < .001, \eta^2_p = .04$	4.52 (1.52)	5.24 (1.36)	$F(1, 772) = 46.46, p < .001, \eta^2_p = .06$
			$F(1, 1008) = 39.74, p < .001, \eta^2_p = .04$			$F(1, 772) = 41.04, p < .001, \eta^2_p = .05$
Roles/positions within ingroups	4.67 (1.81)	5.34 (1.44)	$F(1, 1008) = 42.65, p < .001, \eta^2_p = .04$	4.45 (1.76)	5.33 (1.45)	$F(1, 772) = 57.78, p < .001, \eta^2_p = .07$
			$F(1, 1008) = 45.05, p < .001, \eta^2_p = .04$			$F(1, 772) = 59.36, p < .001, \eta^2_p = .07$
Group-oriented norms/values <sup>3</sup>	4.65 (1.33)	5.28 (1.14)	$F(1, 1008) = 65.70, p < .001, \eta^2_p = .06$	4.49 (1.35)	5.28 (1.15)	$F(1, 772) = 74.72, p < .001, \eta^2_p = .09$
			$F(1, 1008) = 69.44, p < .001, \eta^2_p = .06$			$F(1, 772) = 74.26, p < .001, \eta^2_p = .09$

<sup>1</sup> Cultural differences based on the mean scores are stated in the top lines and cultural differences based on the latent factor (PAF) scores are stated in the bottom lines.

<sup>2</sup> Individual-oriented norms/values

<sup>3</sup> The latent factor (PAF) scores for group-oriented norms/values were computed based on the five group-oriented items (i.e., one-factor model).

**Table 4**

The Baseline Measurement Models in the US and South Korea

	The United States ( <i>n</i> = 508)				South Korea ( <i>n</i> = 502)			
	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	Model fit statistics <sup>1</sup>	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	Model fit statistics <sup>1</sup>
Individual-oriented norms/values								
IND -> ach1	1.63***	.08	.81	Saturated	1.49***	.09	.78	Saturated
IND -> ach2	1.58***	.08	.77		1.54***	.08	.82	
IND -> ach3	1.78***	.08	.85		1.45***	.08	.78	
Group-oriented norms/values								
GRP -> selfin1	1.20***	.15	.63	$X^2(2) = .22, p = .90$ RMSEA = 0 (0, .039) $P_{\text{close-fit}} = .97$ CFI = 1.00 SRMR = .004	1.09***	.12	.66	$X^2(2) = .88, p = .64$ RMSEA = 0 (0, .070) $P_{\text{close-fit}} = .87$ CFI = 1.00 SRMR = .007
GRP -> seflin2	.66**	.19	.32		.80***	.16	.46	
GRP -> selfin3	.96***	.13	.50		1.09***	.12	.59	
GRP -> role1	.77***	.13	.39		.79***	.11	.49	
GRP -> role2	.98***	.14	.43		.52***	.13	.28	
selfin1-selfin2 (error cov.)	.66**	.25	.17		.17	.19	.06	
selfin2-selfin3 (error cov.)	1.45**	.24	.36	.53*	.21	.17		
role1-role2 (error cov.)	1.25***	.25	.28	.72***	.16	.24		
Social hierarchy beliefs								
SH -> sh1	1.63***	.10	.75	$X^2(1) = .05, p = .83$ RMSEA = 0 (0, .070) $P_{\text{close-fit}} = .91$ CFI = 1.00 SRMR = .001	1.52***	.10	.69	$X^2(1) = .03, p = .86$ RMSEA = 0 (0, .065) $P_{\text{close-fit}} = .92$ CFI = 1.00 SRMR = .001
SH -> sh2	1.68***	.08	.76		1.52***	.09	.70	
SH -> sh3	1.64***	.10	.86		1.73***	.10	.88	
SH -> sh4	2.11***	.08	.88		1.58***	.10	.76	
SH -> sh5	1.79***	.08	.84		1.40***	.08	.70	
sh1-sh3 (error cov.)	-.15	.16	-.04	-.63**	.21	-.15		
sh1-sh4 (error cov.)	.13	.19	.02	.12	.23	.03		
sh2-sh3 (error cov.)	.10	.17	.02	.14	.21	.03		
sh4-sh5 (error cov.)	-.47**	.16	-.10	-.70***	.19	-.17		
Biological hierarchy beliefs								
BH -> bh1	1.16***	.10	.66	$X^2(3) = 2.69, p = .44$ RMSEA = 0 (0, .072) $P_{\text{close-fit}} = .82$ CFI = 1.00 SRMR = .014	1.26***	.10	.63	$X^2(3) = 2.97, p = .40$ RMSEA = 0 (0, .075) $P_{\text{close-fit}} = .79$ CFI = 1.00 SRMR = .016
BH -> bh2	1.24***	.11	.72		1.37***	.10	.70	
BH -> bh3	1.83***	.13	.70		.87***	.13	.39	
BH -> bh4	1.47***	.12	.72		1.50***	.10	.72	
BH -> bh5	1.46***	.11	.70		1.35***	.10	.64	
bh2-bh3 (error cov.)	-.37	.20	-.08	-.44**	.16	-.10		
bh3-bh5 (error cov.)	.28	.29	.05	.42*	.21	.09		

Notes. IND = individual-oriented norms/values (latent factor); ach1-ach3 = items on individual achievements (indicators); GRP = group-oriented norms/values (latent factor); selfin1-selfin3 = items on the self-ingroup overlap (indicators); role1-role2 = items on roles/positions within ingroups (indicators); SH = social hierarchy beliefs (latent factor); sh1-sh5 = items on social hierarchy beliefs (indicators); BH = biological hierarchy beliefs (latent factor); bh1-bh5 = items on biological hierarchy beliefs (indicators); <sup>1</sup> The SB scaling method was applied; RMSEA was reported with 90% CI; \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

**Table 5**  
Configural and Metric Invariance in Measurement Models

Models		$\Delta X^2$ <sup>1</sup>	$\Delta RMSEA$	$\Delta CFI$	$\Delta SRMR$	$X^2$ <sup>2</sup>	<i>df</i>	<i>P</i>	RMSEA	CFI	SRMR
Individual-oriented norms/values	All loadings are equal (H <sub>0</sub> )	--	--	--	--	6.92	5	.23	.028	1	.032
	All loadings are freed (vs. H <sub>0</sub> )	4.62	.008	0	.014	3.63	3	.30	.020	1	.018
	ach1 = 1	--	--	--	--	--	--	--	--	--	--
	IND -> ach2 is freed (vs. H <sub>0</sub> )	.50	.002	0	0	5.86	4	.21	.030	1	.032
	IND -> ach3 is freed (vs. H <sub>0</sub> )	4.54*	.013 †	0	.012	4.47	4	.35	.015	1	.020
Group-oriented norms/values	All loadings/error covs are equal (H <sub>0</sub> )	--	--	--	--	28.10	11	.003	.056	.98	.050
	All loadings/error covs are freed (vs. H <sub>0</sub> )	26.93***	.056 †	.02 †	.043 †	1.06	4	.90	0	1	.007
	All loadings are freed (vs. H <sub>0</sub> )	15.28**	.013 (†)	.01 †	.015	13.41	7	.06	.043	.99	.035
	selfin1 = 1	--	--	--	--	--	--	--	--	--	--
	GRP -> selfin2 is freed (vs. H <sub>0</sub> )	4.68*	.004	.01 †	.003	23.65	10	.01	.052	.99	.047
	GRP -> selfin3 is freed (vs. H <sub>0</sub> )	2.83	.001	.02 †	0	25.17	10	.005	.055	.98	.050
	GRP -> role1 is freed (vs. H <sub>0</sub> )	1.60	.001	.02 †	0	26.51	10	.003	.057	.98	.050
	GRP -> role2 is freed (vs. H <sub>0</sub> )	9.29***	.014 (†)	.01 †	.009	19.03	10	.04	.042	.99	.041
Social hierarchy beliefs	All loadings/error covs are equal (H <sub>0</sub> )	--	--	--	--	19.12	10	.04	.043	1	.055
	All loadings/error covs are freed (vs. H <sub>0</sub> )	20.58**	.043 †	0	.054 †	.08	2	.96	0	1	.001
	All loadings are freed (vs. H <sub>0</sub> )	18.23***	.043	0	.041 †	5.26	6	.51	0	1	.014
	SH -> sh1 is freed (vs. H <sub>0</sub> )	.64	.002	0	.001	18.15	9	.03	.045	1	.056
	SH -> sh2 is freed (vs. H <sub>0</sub> )	1.20	0	0	.002	17.53	9	.01	.043	1	.053
	sh3 = 1	--	--	--	--	--	--	--	--	--	--
	SH -> sh4 is freed (vs. H <sub>0</sub> )	9.45***	.017 †	0	.017	12.15	9	.21	.026	1	.038
	SH -> sh5 is freed (vs. H <sub>0</sub> )	1.78	0	0	.003	17.50	9	.04	.043	1	.052
Biological hierarchy beliefs	All loadings/error covs are equal (H <sub>0</sub> )	--	--	--	--	31.38	12	.002	.057	.99	.080
	All loadings/error covs are freed (vs. H <sub>0</sub> )	29.54***	.057 †	.01 †	.064 †	5.59	6	.47	0	1	.016
	All loadings are freed (vs. H <sub>0</sub> )	29.14***	.057 †	.01 †	.063 †	6.29	8	.62	0	1	.017
	BH -> bh1 is freed (vs. H <sub>0</sub> )	2.71	.001	0	.003	29.68	11	.002	.058	.99	.077
	BH -> bh2 is freed (vs. H <sub>0</sub> )	.32	.001	0	.003	29.97	11	.002	.058	.99	.077
	BH -> bh3 is freed (vs. H <sub>0</sub> )	36.56***	.057 †	.01 †	.057 †	7.76	11	.73	0	1	.023
	bh4 = 1	--	--	--	--	--	--	--	--	--	--
	BH -> bh5 is freed (vs. H <sub>0</sub> )	.36	.003	.01 †	.001	30.69	11	.001	.060	.99	.081

*Notes.* IND = individual-oriented norms/values (latent factor); ach1-ach3 = items on individual achievements (indicators); GRP = group-oriented norms/values (latent factor); selfin1-selfin3 = items on the self-ingroup overlap (indicators); role1-role2 = items on roles/positions within ingroups (indicators); SH = social hierarchy beliefs (latent factor); sh1-sh5 = items on social hierarchy beliefs (indicators); BH = biological hierarchy beliefs (latent factor); bh1-bh5 = items on biological hierarchy beliefs (indicators); <sup>1</sup> The SB scaling method was applied; <sup>2</sup> The SB scaled  $X^2$  difference computation procedure for LISREL 8 users (Bryant & Satorra, 2012) was used; \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ , † Significant differences based on cutoff points suggested by Chen (2007)

**Table 6**

The Structural Models in the US and South Korea

	All in the US ( <i>n</i> = 508)			Whites in the US ( <i>n</i> = 292)			All in South Korea ( <i>n</i> = 502)			Koreans in South Korea ( <i>n</i> = 482)		
	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	<i>Unst.</i>	<i>SE</i>	<i>St.</i>
<b>Two-Factor Model</b>												
IND -> SH	.22**	.07	.20	.18*	.07	.18	-.13	.11	-.14	-.12	.11	-.12
IND -> BH	.12*	.06	.14	.05	.07	.05	-.09	.08	-.11	-.08	.08	-.11
GRP -> SH	.59***	.18	.23	.51**	.17	.25	1.59***	.31	.77	1.54***	.30	.76
GRP -> BH	.52**	.17	.26	.52**	.17	.29	1.07***	.24	.62	1.04***	.23	.62
IND-GRP (cov.)	.54***	.14	.47	.47**	.16	.37	.68***	.13	.61	.70***	.14	.60
SH-BH (error cov.)	1.69***	.19	.64	1.42***	.18	.61	1.07***	.16	.59	1.09***	.17	.59
Total variance in SH		13%			13%			49%			48%	
Total variance in BH		12%			10%			31%			31%	
Model fit statistics <sup>1</sup>	$X^2(117) = 188.40, p < .001$			$X^2(117) = 161.22, p < .001$			$X^2(117) = 228.76, p < .001$			$X^2(117) = 215.16, p < .001$		
	RMSEA = .035 (.025, .044)			RMSEA = .036 (.021, .049)			RMSEA = .044 (.035, .052)			RMSEA = .042 (.033, .050)		
	$P_{\text{close-fit}} = 1.00$			$P_{\text{close-fit}} = .96$			$P_{\text{close-fit}} = .89$			$P_{\text{close-fit}} = .94$		
	CFI = .99, SRMR = .045			CFI = .99, SRMR = .053			CFI = .98, SRMR = .041			CFI = .99, SRMR = .041		
<b>Three-Factor Model</b>												
ACH -> SH	.24***	.07	.21	.20**	.07	.19	-.05	.09	-.05	-.04	.09	-.04
ACH -> BH	.13*	.07	.14	.04	.08	.04	-.03	.07	-.04	-.02	.07	-.03
SELFIN -> SH	.25	.16	.16	.23	.26	.16	.20	.18	.14	.20	.17	.15
SELFIN -> BH	.16	.15	.13	.05	.26	.04	.19	.14	.16	.19	.12	.17
ROLE -> SH	.17	.15	.12	.16	.21	.13	.76***	.23	.58	.74***	.23	.56
ROLE -> BH	.19	.14	.17	.29	.22	.28	.46**	.17	.41	.45**	.16	.41
ACH-SELFIN (cov.)	.36*	.14	.19	.33	.18	.18	.64***	.14	.40	.66***	.15	.39
ACH-ROLE (cov.)	1.09***	.17	.50	.85***	.19	.40	1.00***	.15	.58	1.01***	.15	.57
SELFIN-ROLE (cov.)	.96***	.17	.61	1.14***	.22	.74	.74***	.13	.63	.76***	.13	.63
SH-BH (error cov.)	1.65***	.19	.63	1.41***	.18	.60	1.18***	.14	.65	1.21***	.15	.66
Total variance in SH		15%			14%			42%			41%	
Total variance in BH		13%			11%			26%			26%	
Model fit statistics <sup>1</sup>	$X^2(115) = 184.14, p < .001$			$X^2(115) = 158.67, p < .001$			$X^2(115) = 227.35, p < .001$			$X^2(115) = 213.64, p < .001$		
	RMSEA = .034 (.025, .043)			RMSEA = .036 (.021, .049)			RMSEA = .044 (.036, .053)			RMSEA = .042 (.033, .051)		
	$P_{\text{close-fit}} = 1.00$			$P_{\text{close-fit}} = .96$			$P_{\text{close-fit}} = .87$			$P_{\text{close-fit}} = .93$		
	CFI = .99, SRMR = .039			CFI = .99, SRMR = .050			CFI = .98, SRMR = .040			CFI = .99, SRMR = .040		

Notes. IND = individual-oriented norms/values; GRP = group-oriented norms/values; SH = social hierarchy beliefs; BH = biological hierarchy beliefs; ACH = individual achievements; SELFIN = the self-ingroup overlap; ROLE = roles/positions within ingroups

<sup>1</sup> The SB scaling method was applied and RMSEA was reported with 90% C.I.

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

**Table 7**  
Cultural Differences in Structural Models between the US and South Korea

		US vs. Korea						US-W vs. KR-K					
		$\Delta df$	$df$	$\Delta X^2$ <sup>1</sup>	$X^2$ <sup>2</sup>	RMSEA	CFI	SRMR	$\Delta X^2$ <sup>1</sup>	$X^2$ <sup>2</sup>	RMSEA	CFI	SRMR
<b>Two-Factor Model</b>													
All parameter estimates are equal (H <sub>0</sub> )		--	288	--	631.38	.049	.98	.074	--	578.31	.051	.97	.061
All parameter estimates are freed (vs. H <sub>0</sub> )		54	234	230.28***	416.16	.039	.99	.041	155.48***	421.81	.046	.98	.041
Metric invariance	All paths are freed (vs. H <sub>0</sub> )	40	248	164.40***	472.34	.042	.99	.059	106.70***	465.94	.048	.98	.052
	IND -> SH is freed (vs. H <sub>0</sub> )	37	251	154.99***	480.75	.043	.99	.062	96.24***	476.80	.048	.98	.057
	IND -> BH is freed (vs. H <sub>0</sub> )	37	251	155.15***	480.71	.043	.99	.061	96.66***	476.22	.048	.98	.056
	GRP -> SH is freed (vs. H <sub>0</sub> )	37	251	154.82***	481.55	.043	.99	.062	96.86***	477.25	.048	.98	.057
	GRP -> BH is freed (vs. H <sub>0</sub> )	37	251	154.71***	481.52	.043	.99	.061	95.89***	477.68	.048	.98	.056
Partial metric invariance	All paths are freed (vs. H <sub>0</sub> )	47	241	210.32***	434.78	.040	.99	.046	138.48***	436.22	.046	.98	.045
	IND -> SH is freed (vs. H <sub>0</sub> )	44	244	199.45***	443.32	.040	.99	.048	128.26***	444.81	.046	.98	.047
	IND -> BH is freed (vs. H <sub>0</sub> )	44	244	199.31***	443.97	.040	.99	.048	127.99***	445.87	.046	.98	.048
	GRP -> SH is freed (vs. H <sub>0</sub> )	44	244	199.12***	444.24	.040	.99	.049	128.43***	446.30	.046	.98	.048
	GRP -> BH is freed (vs. H <sub>0</sub> )	44	244	199.00***	444.28	.040	.99	.048	127.44***	446.97	.046	.98	.048
<b>Three-Factor Model</b>													
All parameter estimates are equal (H <sub>0</sub> )		--	286	--	624.38	.048	.98	.072	--	575.07	.051	.97	.060
All parameter estimates are freed (vs. H <sub>0</sub> )		56	230	231.02***	410.44	.039	.99	.040	157.04***	418.07	.046	.98	.040
Metric invariance	All paths are freed (vs. H <sub>0</sub> )	43	243	171.59***	461.83	.042	.99	.055	111.25***	460.07	.048	.98	.050
	ACH -> SH is freed (vs. H <sub>0</sub> )	38	248	153.54***	479.76	.043	.99	.064	94.67***	478.45	.049	.98	.061
	ACH -> BH is freed (vs. H <sub>0</sub> )	38	248	154.14***	479.20	.043	.99	.062	95.53***	477.14	.049	.98	.059
	SELFIN -> SH is freed (vs. H <sub>0</sub> )	38	248	154.63***	479.30	.043	.99	.062	95.37***	477.70	.049	.98	.059
	SELFIN -> BH is freed (vs. H <sub>0</sub> )	38	248	154.37***	479.22	.043	.99	.062	95.39***	478.17	.049	.98	.059
	ROLE -> SH is freed (vs. H <sub>0</sub> )	38	248	155.88***	477.66	.043	.99	.062	97.61***	475.51	.049	.98	.058
	ROLE -> BH is freed (vs. H <sub>0</sub> )	38	248	153.73***	479.90	.043	.99	.062	94.66***	478.72	.049	.98	.059
Partial metric invariance	All paths are freed (vs. H <sub>0</sub> )	49	237	211.09***	428.56	.040	.99	.045	140.08***	432.12	.046	.98	.044
	ACH -> SH is freed (vs. H <sub>0</sub> )	44	242	194.50***	441.08	.040	.99	.053	125.66***	445.40	.047	.98	.053
	ACH-> BH is freed (vs. H <sub>0</sub> )	44	242	194.92***	440.94	.040	.99	.052	126.14***	444.47	.047	.98	.052
	SELFIN -> SH is freed (vs. H <sub>0</sub> )	44	242	195.80***	441.16	.040	.99	.052	126.28***	445.27	.047	.98	.052
	SELFIN -> BH is freed (vs. H <sub>0</sub> )	44	242	195.53***	440.77	.040	.99	.052	126.35***	445.22	.047	.98	.052
	ROLE -> SH is freed (vs. H <sub>0</sub> )	44	242	196.56***	439.82	.040	.99	.052	128.08***	442.96	.046	.98	.051
	ROLE -> BH is freed (vs. H <sub>0</sub> )	44	242	194.48***	441.60	.040	.99	.052	125.40***	445.92	.047	.98	.052

Notes. IND = individual-oriented norms/values; GRP = group-oriented norms/values; SH = social hierarchy beliefs; BH = biological hierarchy beliefs; ACH = individual achievements; SELFIN = the self-ingroup overlap; ROLE = roles/positions within ingroups

<sup>1</sup> The SB scaled  $X^2$  difference computation procedure for LISREL 8 users (Bryant & Satorra, 2012) was used.

<sup>2</sup> The SB scaling method was applied.

\*\*\*  $p \leq .001$

**Table 8**

Means (SDs) and Cultural Differences in the Degree of Perceived Social Distance to Four Target Groups and Individual- and Group-oriented Norms/Values between the US and South Korea

	The United States	South Korea	Cultural differences <sup>1</sup>
Low SES groups	6.17 (1.54)	5.73 (1.06)	$F(1, 606) = 16.76, p < .001, \eta^2_p = .03$ $F(1, 606) = 21.48, p < .001, \eta^2_p = .03$
Non-normative groups	5.60 (1.81)	6.23 (1.44)	$F(1, 606) = 22.18, p < .001, \eta^2_p = .04$ $F(1, 606) = 20.74, p < .001, \eta^2_p = .03$
Racial/ethnic outgroups	4.87 (1.94)	5.15 (1.21)	$F(1, 606) = 4.60, p = .03, \eta^2_p = .01$ $F(1, 606) = 4.68, p = .03, \eta^2_p = .01$
Value-based outgroups	5.65 (1.35)	5.69 (1.20)	$F(1, 606) = .17, p = .68, \eta^2_p < .001$ $F(1, 606) = .04, p = .85, \eta^2_p < .001$
Essentialism	5.60 (1.68)	6.13 (1.29)	$F(1, 606) = 19.29, p < .001, \eta^2_p = .03$ $F(1, 606) = 19.50, p < .001, \eta^2_p = .03$
Individual uniqueness	6.85 (1.09)	6.01 (1.16)	$F(1, 606) = 84.10, p < .001, \eta^2_p = .12$ $F(1, 606) = 87.96, p < .001, \eta^2_p = .13$
Conformity with norms/conventions	4.72 (1.49)	5.70 (1.24)	$F(1, 606) = 77.93, p < .001, \eta^2_p = .11$ $F(1, 606) = 90.54, p < .001, \eta^2_p = .13$

<sup>1</sup> Cultural differences based on the mean scores are stated in the top lines and cultural differences based on the latent factor (PAF) scores are stated in the bottom lines.

**Table 9**

The Baseline Measurement Models in the US and South Korea

	The United States ( <i>n</i> = 306)				South Korea ( <i>n</i> = 302)			
	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	Model fit statistics <sup>1</sup>	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	Model fit statistics <sup>1</sup>
Individual uniqueness <sup>2</sup>								
UNIQUE -> unique1	.69***	.12	.44	$X^2(1) = .34, p = .56$ RMSEA = 0 (0, .13) $P_{\text{close-fit}} = .69$ CFI = 1.00 SRMR = .007	.41**	.14	.23	$X^2(1) = 4.21, p = .04$ RMSEA = .10 (.018, .21) $P_{\text{close-fit}} = .12$ CFI = .98 SRMR = .025
UNIQUE -> unique2	.82***	.12	.53		.95***	.17	.55	
UNIQUE -> unique3	1.13***	.11	.76		1.42***	.22	.86	
UNIQUE -> unique4	.77***	.11	.55		.55***	.14	.35	
unique1-unique4 (error cov.)	.62***	.14	.28		.96***	.20	.34	
Conformity with norms/conventions								
CONFORM-> conform1	1.49***	.12	.80	$X^2(1) = 3.21, p = .07$ RMSEA = .085 (0, .20) $P_{\text{close-fit}} = .18$ CFI = 1.00 SRMR = .014	1.37***	.11	.82	$X^2(1) = 2.06, p = .15$ RMSEA = .059 (0, .18) $P_{\text{close-fit}} = .30$ CFI = 1.00 SRMR = .011
CONFORM -> conform2	1.18***	.12	.60		.94***	.09	.67	
CONFORM -> conform3	1.20***	.12	.64		.82***	.11	.48	
CONFORM -> conform4	1.23***	.12	.65		.89***	.10	.56	
conform3-conform4 (error cov.)	.95***	.20	.27		1.24***	.16	.46	
Social distance								
LOWSES -> poor	1.48***	.14	.80	$X^2(23) = 33.17, p = .08$ RMSEA = .038 (0, .065) $P_{\text{close-fit}} = .75$ CFI = .99 SRMR = .031	1.13***	.11	.77	$X^2(23) = 28.41, p = .20$ RMSEA = .026 (0, .057) $P_{\text{close-fit}} = .89$ CFI = .99 SRMR = .031
LOWSES -> uneduc	1.36***	.11	.77		.80***	.08	.64	
LOWSES -> lowcoun	1.34***	.12	.70		.86***	.08	.70	
NONNOR -> homo	1.20***	.15	.53		.72***	.13	.36	
NONNOR -> disabi	1.50***	.16	.72		1.29***	.14	.83	
ETHOUT -> noname	1.72***	.12	.85		1.00***	.09	.74	
ETHOUT -> immigr	1.93***	.12	.92		1.03***	.10	.73	
VALOUT -> difper	1.23***	.12	.75		1.21***	.14	.83	
VALOUT -> difsoc	1.05***	.12	.65		.77***	.11	.55	
VALOUT -> difrel	.96***	.12	.58		.71***	.12	.45	
poor-uneduc (error cov.)	-.01	.24	-.00	.10	.12	.05		
poor-lowcoun (error cov.)	-.24	.17	-.07	-.26*	.11	-.14		
lowcoun-homo (error cov.)	-.52**	.18	-.12	-.31*	.13	-.13		
lowcoun-noname (error cov.)	.87***	.21	.22	.15	.08	.09		
lowcoun-immigr (error cov.)	1.03***	.22	.26	.09	.09	.05		
difsoc-difrel (error cov.)	.75***	.19	.28	.88***	.16	.40		
LOWSES-NONNOR (cov.)	.67***	.08	.67	.86***	.10	.86		
LOWSES-ETHOUT (cov.)	.49***	.06	.49	.41***	.08	.41		
LOWSES-VALOUT (cov.)	.50***	.07	.50	.23**	.07	.23		
NONNOR-ETHOUT (cov.)	.42***	.07	.42	.41***	.08	.41		
NONNOR-VALOUT (cov.)	.46***	.08	.46	.25**	.08	.25		
ETHOUT-VALOUT (cov.)	.19**	.07	.19	.49***	.08	.49		

Notes. UNIQUE = individual uniqueness (latent factor); unique1-unique4 = items on individual uniqueness (indicators); CONFORM = conformity with norms/conventions (latent factor); conform1-conform4 = items on conformity with norms/conventions (indicators); LOWSES = distance to low SES groups (latent factor); poor, uneduc, & lowcoun = items on low SES groups (indicators, poor/unemployed/homeless, uneducated, & born in a low-status country,

respectively); NONNOR = distance to non-normative groups (latent factor); homo & disabi = items on non-normative groups (indicators, homosexuals & born with physical/mental disability, respectively); ETHOUT = distance to racial/ethnic outgroups (latent factor); noname & immigr = items on racial/ethnic outgroups (indicators, non-Americans/Koreans & immigrants to the US/Korea, respectively); VALOUT = distance to value-based outgroups (latent factor); difper, difsoc, & difrel = items on value-based outgroups (indicators, distance to people with different personal interests/tastes, social/political/economic issues, & religious issues, respectively)

<sup>1</sup> RMSEA was reported with 90% CI

<sup>2</sup> Satorra-Bentler (SB) scaling method was applied

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$



**Table 10**  
Configural and Metric Invariance in Measurement Models

Models		$\Delta X^2$	$\Delta df$	$\Delta RMSEA$	$\Delta CFI$	$\Delta SRMR$	$X^2$	$Df$	$P$	RMSEA	CFI	SRMR
Individual uniqueness <sup>1,2</sup>	All loadings/error covs are equal (H <sub>0</sub> )	--	--	--	--	--	32.44	11	.001	.080	.95	.087
	All loadings/error covs are freed (vs. H <sub>0</sub> )	27.55***	9	.017 <sup>†</sup>	.040 <sup>†</sup>	.062 <sup>†</sup>	4.39	2	.11	.063	.99	.025
	unique1 = 1	--	--	--	--	--	--	--	--	--	--	--
	UNIQUE -> unique2 is freed (vs. H <sub>0</sub> )	24.86***	7	.030 <sup>†</sup>	.040 <sup>†</sup>	.051 <sup>†</sup>	7.04	4	.13	.050	.99	.036
	UNIQUE -> unique3 is freed (vs. H <sub>0</sub> )	24.05***	7	.024 <sup>†</sup>	.040 <sup>†</sup>	.042 <sup>†</sup>	7.78	4	.10	.056	.99	.045
	UNIQUE -> unique4 is freed (vs. H <sub>0</sub> )	24.12***	7	.025 <sup>†</sup>	.040 <sup>†</sup>	.048 <sup>†</sup>	7.61	4	.11	.055	.99	.039
Conformity with norms/conventions	All loadings/error covs are equal (H <sub>0</sub> )	--	--	--	--	--	72.49	11	.001	.130	.93	.150
	All loadings/error covs are freed (vs. H <sub>0</sub> )	67.22***	9	.057 <sup>†</sup>	.070 <sup>†</sup>	.139 <sup>†</sup>	5.27	2	.07	.073	1.00	.011
	conform1 = 1	--	--	--	--	--	--	--	--	--	--	--
	CONFORM -> conform2 is freed (vs. H <sub>0</sub> )	64.91***	7	.076 <sup>†</sup>	.070 <sup>†</sup>	.119 <sup>†</sup>	7.58	4	.11	.054	1.00	.031
	CONFORM -> conform3 is freed (vs. H <sub>0</sub> )	65.65***	7	.082 <sup>†</sup>	.070 <sup>†</sup>	.126 <sup>†</sup>	6.84	4	.14	.048	1.00	.024
	CONFORM -> conform4 is freed (vs. H <sub>0</sub> )	64.92***	7	.076 <sup>†</sup>	.070 <sup>†</sup>	.119 <sup>†</sup>	7.57	4	.11	.054	1.00	.031
Social Distance	All loadings/covs are equal (H <sub>0</sub> )	--	--	--	--	--	307.18	78	.001	.092	.91	.170
	All loadings/covs are freed (vs. H <sub>0</sub> )	245.60***	32	.060 <sup>†</sup>	.080 <sup>†</sup>	.139 <sup>†</sup>	61.58	46	.06	.032	.99	.031
	poor = 1	--	--	--	--	--	--	--	--	--	--	--
	LOWSES -> uneduc is freed (vs. H <sub>0</sub> )	241.58***	27	.062 <sup>†</sup>	.080 <sup>†</sup>	.136 <sup>†</sup>	65.60	51	.08	.030	.99	.034
	LOWSES -> lowcoun is freed (vs. H <sub>0</sub> )	239.24***	27	.060 <sup>†</sup>	.080 <sup>†</sup>	.135 <sup>†</sup>	67.94	51	.06	.032	.99	.035
	homo = 1	--	--	--	--	--	--	--	--	--	--	--
	NONNOR -> disabi is freed (vs. H <sub>0</sub> )	241.18***	27	.062 <sup>†</sup>	.080 <sup>†</sup>	.137 <sup>†</sup>	66.00	51	.08	.030	.99	.033
	noname = 1	--	--	--	--	--	--	--	--	--	--	--
	ETHOUT -> immigr is freed (vs. H <sub>0</sub> )	239.49***	27	.060 <sup>†</sup>	.080 <sup>†</sup>	.135 <sup>†</sup>	67.69	51	.06	.032	.99	.035
	difper = 1	--	--	--	--	--	--	--	--	--	--	--
VALOUT -> difsoc is freed (vs. H <sub>0</sub> )	239.34***	27	.060 <sup>†</sup>	.080 <sup>†</sup>	.135 <sup>†</sup>	67.84	51	.06	.032	.99	.035	
VALOUT -> difrel is freed (vs. H <sub>0</sub> )	239.21***	27	.060 <sup>†</sup>	.080 <sup>†</sup>	.135 <sup>†</sup>	67.97	51	.06	.032	.99	.035	

*Notes.* ESSEN = essentialism (latent factor); essen1-essen2 = items on essentialism; UNIQUE = individual uniqueness (latent factor); unique1-unique4 = items on individual uniqueness (indicators); CONFORM = conformity with norms/conventions (latent factor); conform1-conform4 = items on conformity with norms/conventions (indicators); LOWSES = distance to low SES groups (latent factor); poor, uneduc, & lowcoun = items on low SES groups (indicators, poor/unemployed/homeless, uneducated, & born in a low-status country, respectively); NONNOR = distance to non-normative groups (latent factor); homo & disabi = items on non-normative groups (indicators, homosexuals & born with physical/mental disability, respectively); ETHOUT = distance to racial/ethnic outgroups (latent factor); noname & immigr = items on racial/ethnic outgroups (indicators, non-Americans/Koreans & immigrants to the US/Korea, respectively); VALOUT = distance to value-based outgroups (latent factor); difper, difsoc, & difrel = items on value-based outgroups (indicators, distance to people with different personal interests/tastes, social/political/economic issues, & religious issues, respectively)

<sup>1</sup> Satorra-Bentler (SB) scaling method was applied; <sup>2</sup> The SB scaled  $X^2$  difference computation procedure for LISREL 8 users (Bryant & Satorra, 2012) was used  
\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ ; <sup>†</sup> Significant differences based on cutoff points suggested by Chen (2007)

**Table 11**

Structural Models in the US and South Korea

	The United States ( <i>n</i> = 306)				South Korea ( <i>n</i> = 302)			
	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	Model fit statistics <sup>1,2</sup>	<i>Unst.</i>	<i>SE</i>	<i>St.</i>	Model fit statistics <sup>1,2</sup>
<b>Essentialism</b>								
ESSEN -> LOWSES	.35**	.14	.26	$X^2(38) = 44.24, p = .22$ RMSEA = .023 (0, .048) $P_{\text{close-fit}} = .96$ CFI = 1.00 SRMR = .033	.61**	.22	.39	$X^2(38) = 31.36, p = .77$ RMSEA = 0 (0, .029) $P_{\text{close-fit}} = 1.00$ CFI = 1.00 SRMR = .031
ESSEN -> NONNOR	.24	.14	.23		.42*	.17	.42	
ESSEN -> ETHOUT	.17	.13	.11		.51**	.19	.38	
ESSEN -> VALOUT	.02	.11	.02		.26	.18	.16	
LOWSES-NONNOR (error cov.)	1.08***	.24	.60		.60***	.15	.71	
LOWSES-ETHOUT (error cov.)	1.16***	.22	.45		.29*	.12	.26	
LOWSES-VALOUT (error cov.)	.91***	.19	.49		.23	.12	.17	
NONNOR-ETHOUT (error cov.)	.79***	.22	.39		.19*	.08	.26	
NONNOR-VALOUT (error cov.)	.67***	.19	.45		.17	.09	.19	
ETHOUT-VALOUT (error cov.)	.38*	.17	.18		.52***	.14	.43	
Total variance in LOWSES		7%				15%		
Total variance in NONNOR		6%				17%		
Total variance in ETHOUT		1%				14%		
Total variance in VALOUT		.02%				3%		
<b>Uniqueness-Conformity</b>								
UNIQUE -> LOWSES	.02	.15	.01	$X^2(112) = 172.93, p < .001$ RMSEA = .042 (.029, .054) $P_{\text{close-fit}} = .85$ CFI = .98 SRMR = .059	-.26	.27	-.10	$X^2(112) = 130.10, p = .12$ RMSEA = .023 (0, .039) $P_{\text{close-fit}} = 1.00$ CFI = .99 SRMR = .054
UNIQUE -> NONNOR	-.36*	.17	-.22		-.09	.16	-.05	
UNIQUE -> ETHOUT	-.08	.17	-.03		.04	.21	.02	
UNIQUE -> VALOUT	.001	.15	.00		-.19	.26	-.07	
CONFORM -> LOWSES	.27**	.08	.26		.20**	.06	.25	
CONFORM -> NONNOR	.29**	.09	.33		.12*	.06	.23	
CONFORM -> ETHOUT	.07	.09	.06		.13*	.06	.18	
CONFORM -> VALOUT	.18*	.08	.21		.19*	.08	.24	
UNIQUE-CONFORM (cov.)	-.22*	.10	-.20		-.05	.06	-.08	
LOWSES-NONNOR (error cov.)	1.11***	.22	.58		.67***	.16	.81	
LOWSES-ETHOUT (error cov.)	1.20***	.22	.47		.42**	.13	.37	
LOWSES-VALOUT (error cov.)	.82***	.18	.44		.22	.12	.17	
NONNOR-ETHOUT (error cov.)	.88***	.21	.40		.28**	.10	.38	
NONNOR-VALOUT (error cov.)	.63***	.18	.39		.17	.10	.21	
ETHOUT-VALOUT (error cov.)	.37*	.17	.17		.52***	.14	.47	
Total variance in LOWSES		7%				8%		
Total variance in NONNOR		18%				6%		
Total variance in ETHOUT		1%				3%		
Total variance in VALOUT		4%				7%		

*Notes.* ESSEN = essentialism (latent factor); UNIQUE = individual uniqueness (latent factor); CONFORM = conformity with norms/conventions (latent factor); LOWSES = distance to low SES groups (latent factor); NONNOR = distance to non-normative groups (latent factor); ETHOUT = distance to racial/ethnic outgroups (latent factor); VALOUT = distance to value-based outgroups (latent factor)

<sup>1</sup> Satorra-Bentler (SB) scaling method was applied

<sup>2</sup> RMSEA was reported with 90% CI

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

**Table 12**

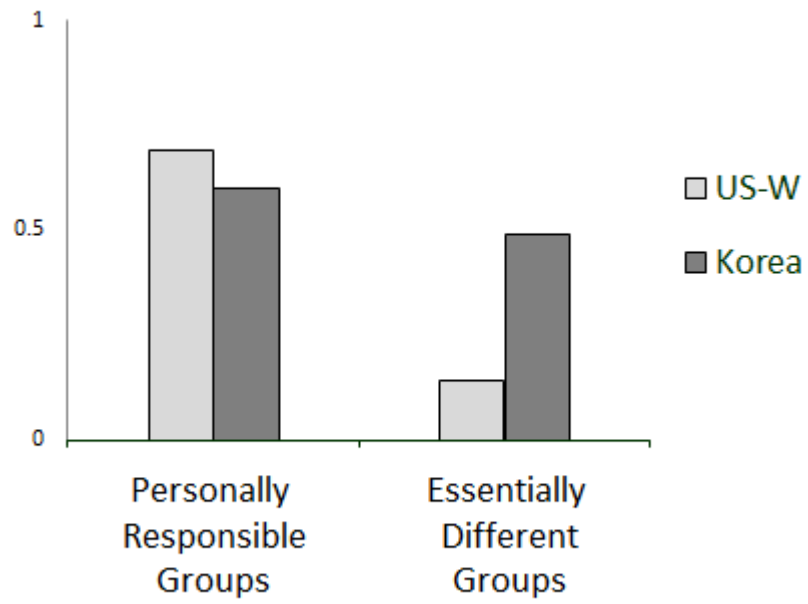
Cultural Differences in the Structural Models between the US and South Korea

	$\Delta df$	$\Delta X^2$	$df$	$X^2$	RMSEA	CFI	SRMR
<b>Essentialism</b>							
All parameter estimates are equal ( $H_0$ )	--	--	109	261.04	.068	.95	.110
All parameter estimates are freed (vs. $H_0$ )	31	178.36***	78	74.55	.000	1.00	.031
ESSEN -> LOWSES is freed (vs. $H_0$ )	28	172.24***	81	77.50	.000	1.00	.035
ESSEN -> NONNOR is freed (vs. $H_0$ )	28	172.23***	81	77.51	.000	1.00	.035
ESSEN -> ETHOUT is freed (vs. $H_0$ )	28	172.50***	81	76.63	.000	1.00	.034
ESSEN -> VALOUT is freed (vs. $H_0$ )	28	173.90***	18	76.45	.000	1.00	.033
LOWSES-NONNOR is freed (vs. $H_0$ )	22	144.60***	87	105.98	.027	.99	.063
LOWSES-ETHOUT is freed (vs. $H_0$ )	22	146.38***	87	101.25	.023	.99	.049
LOWSES-VALOUT is freed (vs. $H_0$ )	22	145.38***	87	103.04	.025	.99	.046
NONNOR-ETHOUT is freed (vs. $H_0$ )	22	143.20***	87	105.16	.026	.99	.055
NONNOR-VALOUT is freed (vs. $H_0$ )	22	141.36***	87	107.92	.028	.99	.056
ETHOUT-VALOUT is freed (vs. $H_0$ )	22	150.71***	87	97.58	.020	1.00	.064
<b>Uniqueness-Conformity</b>							
All parameter estimates are equal ( $H_0$ )	--	--	271	536.37	.057	.94	.084
All parameter estimates are equal ( $H_0$ )	45	217.58***	226	299.93	.033	.98	.054
UNIQUE -> LOWSES is freed (vs. $H_0$ )	38	208.80***	233	304.08	.032	.98	.056
UNIQUE -> NONNOR is freed (vs. $H_0$ )	38	209.27***	233	305.46	.032	.98	.054
UNIQUE -> ETHOUT is freed (vs. $H_0$ )	38	209.67***	233	306.90	.032	.98	.055
UNIQUE -> VALOUT is freed (vs. $H_0$ )	38	208.85***	233	307.27	.032	.98	.055
CONFORM -> LOWSES is freed (vs. $H_0$ )	38	209.37***	233	307.58	.033	.98	.055
CONFORM -> NONNOR is freed (vs. $H_0$ )	38	210.69***	233	305.09	.032	.98	.055
CONFORM -> ETHOUT is freed (vs. $H_0$ )	38	209.47***	233	307.85	.033	.98	.055
CONFORM -> VALOUT is freed (vs. $H_0$ )	38	208.62***	233	307.83	.033	.98	.055
UNIQUE-CONFORM is freed (vs. $H_0$ )	31	177.56***	240	340.69	.037	.98	.065
LOWSES-NONNOR is freed (vs. $H_0$ )	32	184.07***	239	337.28	.037	.98	.069
LOWSES-ETHOUT is freed (vs. $H_0$ )	32	185.68***	239	332.17	.036	.98	.061
LOWSES-VALOUT is freed (vs. $H_0$ )	32	184.57***	239	332.29	.036	.98	.060
NONNOR-ETHOUT is freed (vs. $H_0$ )	32	179.52***	239	338.28	.037	.98	.065
NONNOR-VALOUT is freed (vs. $H_0$ )	32	178.38***	239	341.10	.038	.98	.065
ETHOUT-VALOUT is freed (vs. $H_0$ )	32	186.83***	239	330.01	.035	.98	.069

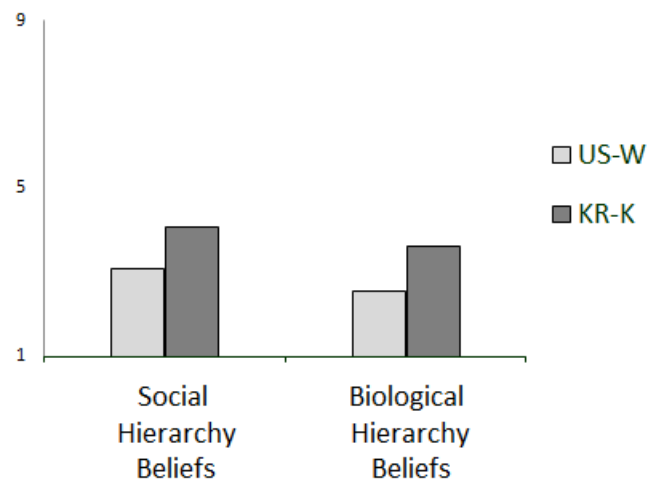
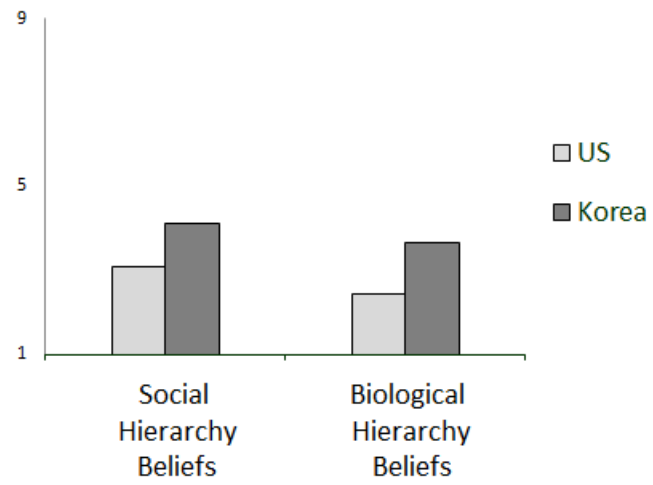
Notes. ESSEN = essentialism (latent factor); UNIQUE = individual uniqueness (latent factor); CONFORM = conformity with norms/conventions (latent factor); LOWSES = distance to low SES groups (latent factor); NONNOR = distance to non-normative groups (latent factor); ETHOUT = distance to racial/ethnic outgroups (latent factor); VALOUT = distance to value-based outgroups (latent factor)

<sup>1</sup> Satorra-Bentler (SB) scaling method was applied; <sup>2</sup> The SB scaled  $X^2$  difference computation procedure for LISREL 8 users (Bryant & Satorra, 2012) was used  
\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

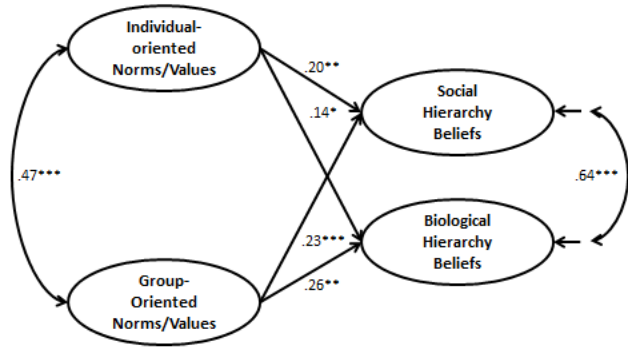
**Figure 1**  
Proportions of Mean Negative Responses (Social Distance) to Groups Perceived as Personally Responsible and Essentially Different in the US (Whites) and South Korea



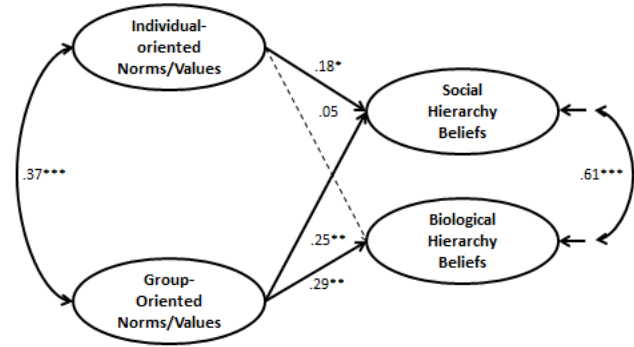
**Figure 2**  
Social and Biological Hierarchy Beliefs in the US and South Korea



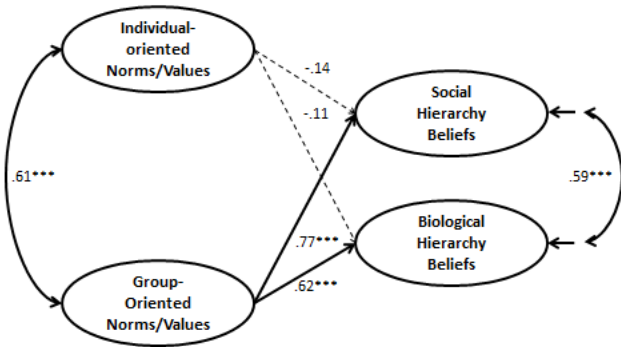
**Figure 3**  
Standardized Parameter Estimates of the Two-Factor Structural Models in the US and South Korea



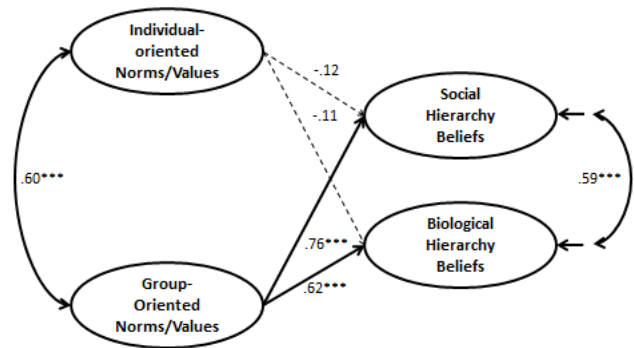
**All in the US**



**Whites in the US**



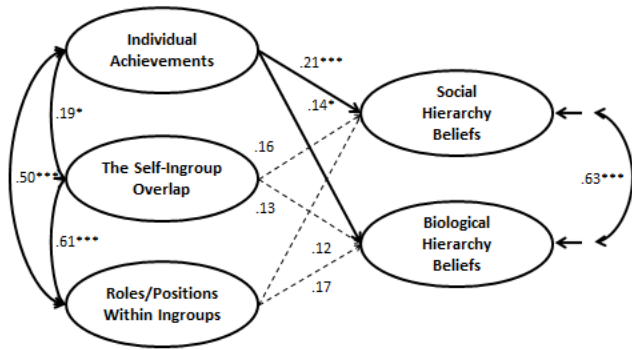
**All in South Korea**



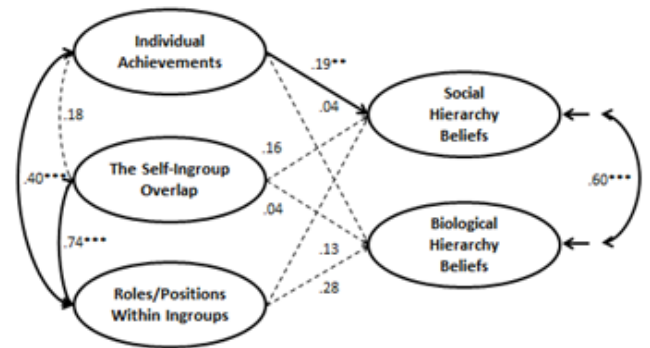
**Koreans in South Korea**

**Figure 4**

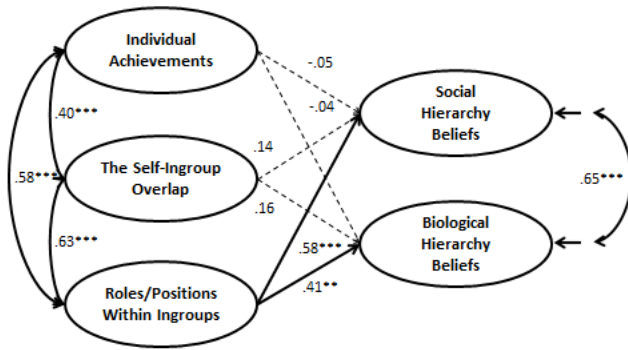
Standardized Parameter Estimates of the Three-Factor Structural Models in the US and South Korea



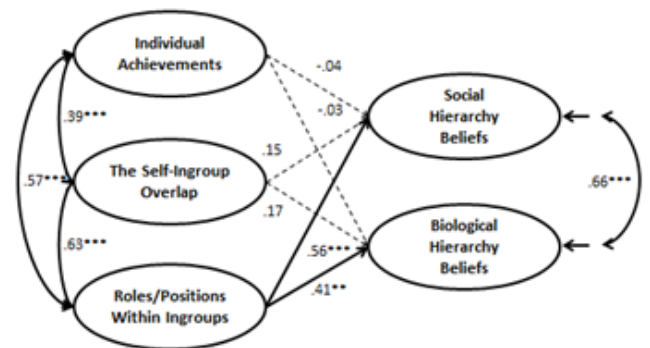
**All in the US**



**Whites in the US**



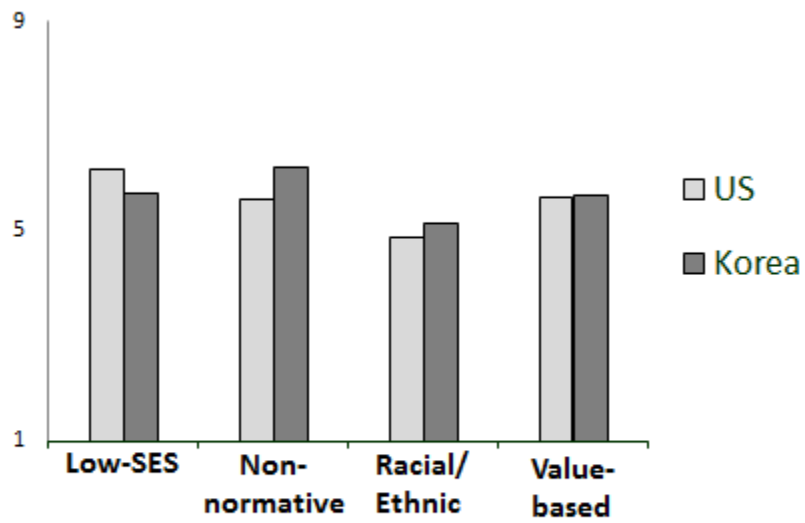
**All in South Korea**



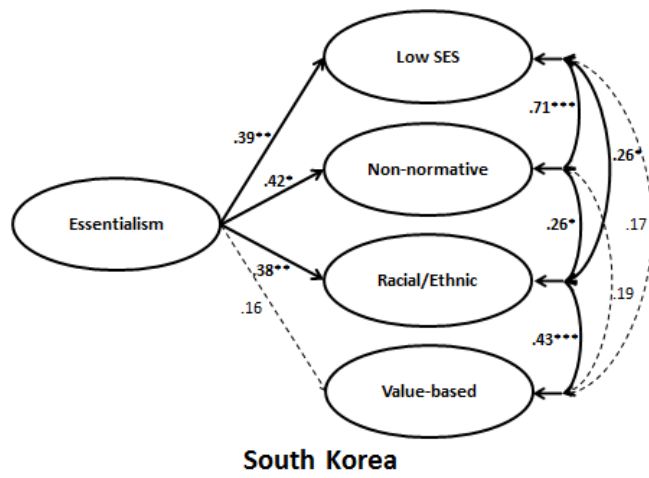
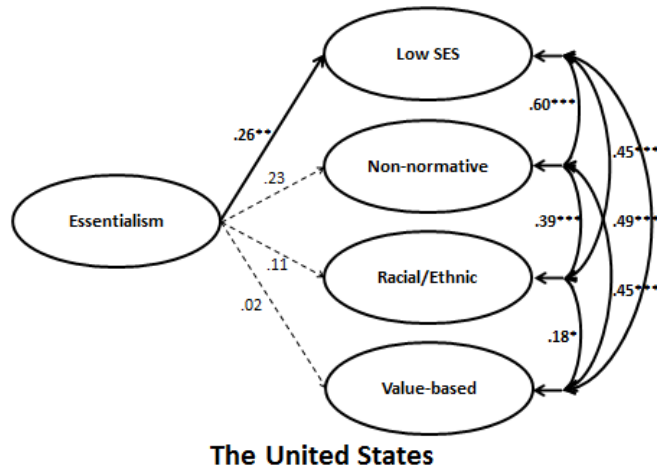
**Koreans in South Korea**



**Figure 5**  
Mean Social Distance to Four Types of Target Groups in the US and South Korea

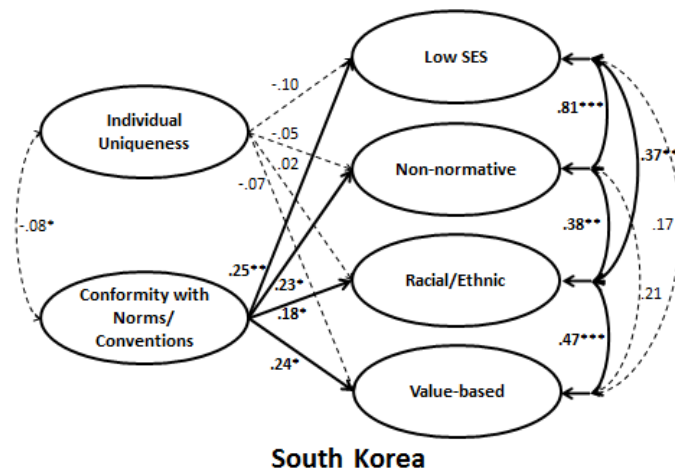
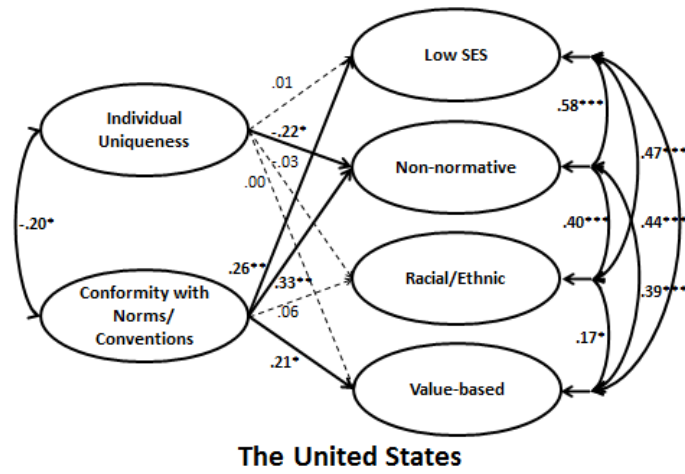


**Figure 6**  
Standardized Parameter Estimates of the Structural Models in the US and South Korea



**Figure 7**

Standardized Parameter Estimates of the Structural Models in the US and South Korea



# Appendices

## Appendix A

		Items
Individual-oriented norms/values	Individual achievements	<p>ach1. When I think about a person, I usually think first of what he or she has achieved or accomplished in the past.</p> <p>ach2. When I think about a person, I usually think first of what he or she is currently trying to achieve or accomplish.</p> <p>ach3. When I think about a person, I usually think first of what he or she will achieve or accomplish in the future.</p>
Group-oriented norms/values	The self-ingroup overlap	<p>selfin1. What is good for the group I belong to (e.g., family, a group of friends, community, religious group, school, company, etc.) is also mostly what is good for me. <sup>1</sup></p> <p>selfin2. Even when I would rather do something different, I usually go along with what the group I belong to (e.g., family, a group of friends, community, religious group, school, company, etc.) wants to do.</p> <p>selfin3. Once the group I belong to (e.g., family, a group of friends, community, religious group, school, company, etc.) makes a decision, I usually accept the decision without any disagreement.</p>
	Roles/positions within ingroups	<p>role1. A person's role or position in the groups he or she belongs to is very important to me in defining who that person is</p> <p>role2. A person's role or position in the family (e.g., the head or eldest son/daughter of the family) is very important to me in defining who that person.</p>
Hierarchically-based intergroup biases	Social hierarchy beliefs	<p>sh1. In general, people who graduate from a high-ranked school are superior.</p> <p>sh2. People who have a job that is socially recognized are superior to people who have a job that is not socially recognized.</p> <p>sh3. People who have low income are inferior to people whose income is high.</p> <p>sh4. People who have a professional degree (e.g., a doctoral degree) are superior to people who do not.</p> <p>sh5. People who have not attended a college are inferior to people who have attended.</p>
	Biological hierarchy beliefs	<p>bh1. In general, the physically disabled are inferior.</p> <p>bh2. In general men are superior to women.</p> <p>bh3. There are people who are genetically superior or inferior from birth.</p> <p>bh4. Certain races or nations are superior to other races or nations.</p> <p>bh5. People who are genetically superior should be in more important positions within a society or group.</p>

<sup>1</sup> Modified from an item in the individualism-collectivism scale implemented by Oyserman (1993).

## Appendix B

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	Items
Essentialism	essen1. Some people are smarter than others by birth. essen2. There are people who are good or bad by nature; such nature (the innate disposition) doesn't change easily during their lifetime.
Individual uniqueness	unique1. I enjoy being unique and different from others in many aspects. unique2. I usually display my personal preferences when I'm in a group. unique3. I like those who express their own personal preferences when they are in a group. unique4. I like those who have their own unique life styles.
Conformity with norms/conventions	conform1. It is important to follow the social conventions or customs most people of the society follow. conform2. It is important to follow the moral standards most people in the society follow. conform3. It is better to follow what the majority of the society does. conform4. It is better to follow what most people normally do.

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## Bibliography

- Aiken, L. S., & West S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Allport, G. W. (1954/1979). *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin* 130 (1), 80-114.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- Bentler, P. M., & Wu, E. J. C. (2002). *EQS for Windows user's guide*. Encino, CA: Multivariate Software, Inc.
- Berry, J. W. (1994). Ecology of individualism and collectivism. In U. Kim, H. C. Triandis, C. Kagitçibasi, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 77-84). Thousand Oaks, CA: Sage.
- Bobocel, D. R., & Hafer, C. L. (2007). Justice motive theory and the study of justice in work organizations: A conceptual integration. *European Psychologist*, 12, 283-289.
- Bogardus, E. S. (1933). A social distance scale. *Sociology and Social Research*, 17, 265-271.
- Breivik, E., & Olsson, U. H. (2001). Adding variables to improve fit: The effect of model size on fit assessment in LISREL. In R. Cudeck, S. Du Toit, & D. Sörbom

- (Eds.), *Structural equation modeling: Present and future. A festschrift in honor of Karl Jöreskog* (pp. 169-194). Lincolnwood, IL: Scientific Software International.
- Brett, J. M., & Gelfand, M. J. (2006). A cultural analysis of the underlying assumptions of negotiation theory. In L. Thompson (Ed.), *Frontiers of negotiation research* (pp. 173-201). Philadelphia, PA: Psychology Press.
- Brewer, M. B., & Chen, Y.-R. (2007). Where (who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Bulletin* 114 (1), 133-151.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage
- Bryant, F. B., & Satorra, A. (2012). Principles and practice of scaled difference chi-square testing. *Structural Equation Modeling* 19 (3), 372-398
- Byrne, B. M. (2008). Testing for multigroup equivalence of a measuring instrument: A walk through the process. *Psicothema* 20(4), 872-882.
- Byrne, B. M., Shavelson, R. J., & Muthen, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin* 105 (3), 456-466.
- Campbell, D. T. (1965). Ethnocentric and other altruistic motives. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 13, pp. 283-311). Lincoln, NE: University of Nebraska Press.
- Cha, J.-H. (1994). Aspects of individualism and collectivism in Korea. In U. Kim, H. C. Triandis, C. Kagitçibasi, S.-C. Choi, & G. Yoon (Eds.), *Individualism and*

- collectivism: Theory, method, and applications* (pp. 157-174). Thousand Oaks, CA: Sage.
- Chen, F. F. (2007). Sensitivity of goodness of fit indices to lack of measurement invariance. *Structural Equation Modeling, 14*, 464-504.
- Chen, F. F. (2008). What happens if we compare chopsticks with forks? The Impact of making inappropriate comparisons in cross-cultural research. *Journal of Personality and Social Psychology, 95*(5), 1005-1018.
- Chiao, J. Y., & Ambady, N. (2007). Cultural neuroscience: Parsing universality and diversity. In Kitayama, & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 237-254). New York, NY: The Guilford Press.
- Cho, H. (1998). Male dominance and mother power: The two sides of Confucian patriarchy in Korea. In W. Slote & G. DeVos (Eds.), *Confucianism and the family* (pp. 187-207). Albany, NY: State University of New York Press.
- Cho, K. (2007). 동아시아 집단주의의 유학사상적 배경 [*Confucian background of East Asian collectivism*]. Seoul, Korea: Jisik-Sanup Publishing Co., Ltd.
- Choi, I., & Nisbett, R. (1998). Situational salience and cultural differences in the Correspondence bias and actor-observer bias. *Personality and Social Psychology Bulletin, 9*, 949-960.
- Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological Bulletin, 125*, 47-63.
- Cohen, D., & Kitayama, S. (2007). Cultural psychology: This stanza and the next. In S. Kitayama, & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 847-851). New York, NY: The Guilford Press.



- Crandall, C. C., & Martinez, R. (1996). Culture, ideology, and antifat attitudes. *Personality and Social Psychology Bulletin*, 22, 1165-1176.
- Cuddy, A. J. C., Fiske, S. T., Kwan, V. S. Y., Glick, P., Demoulin, S., Leyens, J.-P.,...Ziegler, R. (2009). Stereotype content model across cultures: Towards universal similarities and some differences. *British Journal of Social Psychology*, 48, 1-33.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to non-Normality and specification error in confirmatory factor analysis. *Psychological Methods*, 1, 16-29.
- Dovidio, J. F., Major, B., & Crocker, J. (2000). Stigma: Introduction and overview. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 1-28). New York, NY: The Guilford Press.
- Dovidio, J. F., & Gaertner, S. L. (2010). Intergroup bias. In S. T. Fiske, D. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, 1084-1121). New York: Wiley.
- Dovidio, J. F., Hewstone, M., Glick, P., & Esses, V. M. (2010). Prejudice, stereotyping, And discrimination: Theoretical and empirical overview. In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), *The SAGE handbook of prejudice, stereotyping and discrimination* (pp. 3-28). Thousand Oaks, CA: Sage.
- Dovidio, J. F., Major, B., & Crocker, J. (2000). Stigma: Introduction and overview. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 1-28). New York, NY: The Guilford Press.
- Duckitt, J. (2005). Personality and prejudice. In J. F. Dovidio, P. Glick, & L. A. Rudman

- (Eds.), *On the nature of prejudice: Fifty years after Allport* (pp. 227-243).  
Malden, MA: Blackwell.
- Esses, V. M., Dovidio, J. F., Jackson, L. M., & Armstrong, T. L. (2001). The immigration dilemma: The role of perceived group competition, ethnic prejudice, and national identity. *Journal of Social Issues, 57*, 389-412.
- Esses, V. M., Jackson, L. M., & Armstrong, T. L. (1998). Intergroup competition and Attitudes toward immigrants and immigration: An instrumental model of group conflict. *Journal of Social Issues, 54*, 699-724.
- Esses, V. M., Jackson, L. M., Dovidio, J. F., & Hodson, G. (2005). Instrumental relations among groups: Group competition, conflict, and prejudice. In J. F. Dovidio, P. Glick, & L. A. Rudman (Eds.), *On the nature of prejudice: Fifty years after Allport* (pp. 227-243). Malden, MA: Blackwell.
- Finney, S. J., & DiStefano, C. (2006). Nonnormal and categorical data in structural Equation modeling. In G. R. Hancock, & R. O. Mueller (Eds.). *Structural equation modeling: A second course* (pp. 269-314). Greenwich, CT: Information Age Publishing, Inc.
- Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4<sup>th</sup> ed., Vol. 2, pp. 357-411). New York: McGraw-Hill.
- Fiske, A., Kitayama, S., Markus, H. R., & Nisbett, R. E. (1998). The cultural matrix of social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 915-981). New York: McGraw-Hill.
- Gaertner, S. L., & Dovidio, J. F. (2012). Reducing intergroup bias: The Common Ingroup

- Identity Model. In Van Lange, P. A. M., Kruglanski, A. W., & Higgins, E. T. (Eds), *Handbook of Theories of Social Psychology*. Thousand Oaks, CA: Sage.
- Gardner, W. L., & Seeley, E. A. (2001). Confucius, “Jen,” and the benevolent use of power: The interdependent self as psychological contract preventing exploitation. In A. Y. Lee-Chai & J. A. Bargh (Eds.), *The use and abuse of power* (pp. 263-280). Philadelphia, PA: Psychology Press.
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin*, *117*, 21–38.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice-Hall.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, *74*, 1464-1480.
- Hamilton, D. L., & Sherman, S. J. (1996). Perceiving persons and groups. *Psychological Review*, *103*, 336-355.
- Haslam, N., Bastian, B., Bain, P., & Kashima, Y. (2006). Psychological essentialism, Implicit theories, and intergroup relations. *Group Processes & Intergroup Relations*, *9*, 63–76.
- Hayduk, L. A., Pazderka-Robinson, H., Cummings, G. C., Levers, M. J. D., & Beres, M. A. (2005). Structural equation model testing and the quality of natural killer cell Activity measurements. *Medical Research Methodology*, *5(1)*.
- Heaven, P. C. (1990). Human values and suggestions for reducing unemployment. *British Journal of Social Psychology*, *29*, 257–264.

- Heine, S. J. (2010). Cultural psychology. In D. T. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of Social Psychology* (pp. 1423-1464). New York: Wiley.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, *106*, 766-794.
- Henrich, J. Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Science*, 1-75. doi:10.1017/S0140525X0999152X
- Henry, P. J., & Sears, D. O. (2002). The symbolic racism 2000 scale. *Political Psychology*, *23*(2), 253-283.
- Horn, J. L., & McArdle, J. J. (1992). A practical and theoretical guide to measurement invariance in aging research. *Experimental Aging Research*, *18*, 117-144.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. London: Sage.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55.
- Im, H. (2011, February 21). "Graduating from a good school is the most important factor to succeed in the Korean society." *The Korea Times*. Retrieved from <http://www.hankooki.com>
- Jackman, M. R. (1994). *The velvet glove*. Berkeley, CA: University of California Press.
- Jordan, D. K. (1998). Filial piety in Taiwanese popular thought. In W. Slote & G. DeVos (Eds.) *Confucianism and the family* (pp. 267-283). Albany, NY: State University

of New York Press.

Jöreskog K. G. (1971). Simultaneous factor analysis in several populations.

*Psychometrika*, 36, 409-426.

Jöreskog K. G., & Sörbom D. (2006). LISREL (Version 8.80) [Computer software].

Lincolnwood, IL: Scientific Software International

Jones, J. M. (1986). Racism: A cultural analysis of the problem. In J. F. Dovidio & S. L.

Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 279-314). Orlando,

FL: Academic Press.

Jones, E. E., Farina, A., Hastorf, A. H., Markus, H., Miller, D. T., & Scott, R. A. (1984).

*Social stigma: The psychology of marked relationships*. New York: Freeman.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and

The production of false consciousness. *British Journal of Social Psychology*, 33,

1-27.

Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory:

Accumulated evidence of conscious and unconscious bolstering of the status quo.

*Political Psychology*, 25, 881-920.

Jost, J. T., Kivetz, Y., Rubini, M., Guermandi, G., & Mosso, C. (2005). System-justifying

functions of complementary regional and ethnic stereotypes: Cross-national

evidence. *Social Justice Research*, 18, 305-333.

Kaiser, C. R., & Miller, C. T. (2001). Reacting to impending discrimination:

Compensation for prejudice and attribution to discrimination. *Personality and*

*Social Psychology Bulletin*, 27, 1357-67.

Kashima, Y., Kashima, E., Chiu, C.-Y., Farsides, T., Gelfand, M., Hong, Y.-

- Yzerbyt, V. (2005). Culture, essentialism, and agency: Are individuals universally believed to be more real entities than groups? *European Journal of Social Psychology, 35*, 147-169.
- Kashima, Y., Siegal, M., Tanaka, K., & Isaka, H. (1988). Universalism in lay conceptions of distributive justice: A cross-cultural examination. *International Journal of Psychology, 23*, 51-64.
- Kashima, Y., Siegal, M., Tanaka, K., & Kashima, E. S. (1992). Do people believe behaviors are consistent with attitudes? Toward a cultural psychology of attribution processes. *British Journal of Social Psychology, 331*, 111-124.
- Katz, I., & Hass, R. G. (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal of Personality and Social Psychology, 55*, 893-905.
- Kazin, M, Edwards, R, & Rothman, A. (Eds.) (2010). *The Princeton encyclopedia of American political history*. Princeton, NJ: Princeton University Press.
- Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. *Journal of Personality and Social Psychology, 88*, 686-702.
- Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology, 77*(4), 785-800.
- Kim, U. (1994). Individualism and collectivism: Conceptual clarification and elaboration. In U. Kim, H. C. Triandis, C. Kagitçibasi, S.-C. Choi, & G. Yoon (Eds.), *Individualism and collectivism. Theory, method, and applications* (pp. 19-40). Thousand Oaks, CA: Sage.

- Kim, U., Triandis, H. C., Kagitçibasi, C., Choi, S.-C., & Yoon, G. (Eds.) (1994). *Individualism and collectivism. Theory, method, and applications*. Thousand Oaks, CA: Sage.
- Kitayama, S., & Cohen, D. (Eds.) (2007). *Handbook of cultural psychology*. New York, NY: The Guilford Press.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3<sup>rd</sup> ed.). New York, NY: The Guild Press.
- Kluckhohn, C. (1951). Values and value-orientations in the theory of action: An exploration in definition and classifications. In T. Parsons & E. Shils (Eds.), *Toward a general theory of action* (pp. 388–433). Cambridge, MA: Harvard University Press.
- Lebra, T. S. (1998). Confucian gender role and personal fulfillment for Japanese women. In W. Slote & G. DeVos (Eds.), *Confucianism and the family* (pp. 209-227). Albany, NY: State University of New York Press.
- Leung, K., Au, Y., Fernandez-Dols, J. M., & Iwawaki, S. (1992). Preference for methods of conflict processing in two collectivist cultures. *International Journal of Psychology*, 27, 195-209.
- Leung, K., Bond, M. H., Carment, D. W., Krishman, L., & Liebrand, W. B. G. (1990). Effects of cultural femininity on preference for methods of conflict processing: A cross-cultural study. *Journal of Experimental Social Psychology*, 26, 373-388.
- LeVay, S. (1991). A difference in hypothalamic structure between heterosexual and homosexual men. *Science, New Series*, 253(5023), 1034-1037.

- Leyens, J.-P., Cortes, B., Demoulin, S., Dovidio, J. F., Fiske, S. T., Gaunt, R., et al. (2003). Emotional prejudice, essentialism, and nationalism. *European Journal of Social Psychology, 33*, 703–717.
- Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association, 83*, 1198-1202.
- Little, R. J. A., & Rubin, D. B. (2002). *Statistical analysis with missing data* (2<sup>nd</sup> ed.). Hoboken, NJ: Wiley.
- Locke K., & Baik, K-D. (2009). Does an acquiescent response style explain why Koreans are less consistent than Americans? *Journal of Cross-Cultural Psychology, 40*(2), 319-323.
- Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology, 92*, 1068-1086.
- Mahler, I. (1974). A comparative study of locus of control. *Psychologia 17*(3), 135–139.
- Marcus, E. (2002). *Making gay history: The half century fight for lesbian and gay equal rights*. New York, NY: HarperCollins Publishers, Inc.
- Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika, 57*, 519-530.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.
- Markus, H. R. & Kitayama, S. (1994). The cultural construction of self and emotion: Implications for social behavior. In S. Kitayama & H. R. Markus (Eds.), *Emotion*



- and culture: Empirical studies of mutual influence* (pp. 89–132). Washington, DC: American Psychological Association.
- Markus, H. R., Kitayama, S., & Heiman, R. J. (1998). Culture and “basic” psychological principles. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 857-913). New York, NY: The Guilford Press.
- Markus, H. R., Mullally, P., & Kitayama, S. (1997). Selfways: Diversity in modes of Cultural participation. In U. Neisser & D. A. Jopling (Eds.), *The conceptual self in context: Culture, experience, self-understanding* (pp. 13–61). Cambridge, England: Cambridge University Press.
- Masuda, T., & Nisbett, R. E. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans, *Journal of Personal Social Psychology, 81*, 922-934.
- McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 99–125). Orlando, FL: Academic Press.
- Meade, A. W., & Lautenschlager, G. J. (2004). A Monte-Carlo study of confirmatory factor analytic tests of measurement equivalence/invariance. *Structural Equation Modeling, 11*, 60–72.
- Menon, T., Morris, M. W., Chiu, C.-Y., & Hong, Y. Y. (1999). Culture and construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology, 76*(5), 701-717.
- Milfont, T. L., & Fischer, R. (2010). Testing measurement invariance across groups: Applications in cross-cultural research. *International Journal of Psychological*

*Research*, 3(1), 111-121.

- Millsap, R. E., & Kwok, O.-M. (2004). Evaluating the impact of partial factorial invariance on selection of multiple populations. *Psychological Methods*, 9, 93-15.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for physical and social events. *Journal of Personality and Social Psychology*, 67, 949-971.
- Morrison, M. A., & Morrison, T. G. (2003). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality*, 43(2), 15-37.
- Naoi, A., & Schooler, C. (1985). Occupational conditions and psychological functioning in Japan. *American Journal of Sociology*, 90, 729-752.
- Nevitt, J., & Hancock, G. R. (2000). Improving the root mean square error of approximation for nonnormal conditions in structural equation modeling. *Journal of Experimental Education*, 68, 251-268.
- Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently and why*. New York: The Free Press.
- Nisbett, R. E., Peng, K., Choi, I. & Norenzayan, A. (2001). Culture and system of thought: Holistic versus analytic cognition, *Psychological Review*, 108, 291-310.
- Olsson, U. H., Foss, T., & Breivik, E. (2004). Two equivalent discrepancy functions for maximum likelihood estimation: Do their test statistics follow a non-central chi-square distribution under model misspecification? *Sociological Methods and Research*, 32, 453-500.
- Oyserman, D. (1993). The lens of personhood: Viewing the self and others in

- multicultural society. *Journal of Personality and Social Psychology*, 65, 993-1009.
- Parsons, O. A., & Schneider, J. M. (1974). Locus of control in university students from Eastern and Western societies. *Journal of Consulting and Clinical Psychology* 42(3), 456-461.
- Pettigrew, T. F. (1959). Regional differences in anti-Negro prejudice. *The Journal of Abnormal and Social Psychology*, 59, 28-36.
- Pettigrew, T. F. (2001). Personality and sociocultural factors in intergroup attitudes: A cross-national comparison. In M. A. Hogg & D. Abrams (Eds.), *Intergroup relations: Essential reading. Key readings in social psychology* (pp. 18-29). New York: Psychological Press.
- Pettigrew, T. F. (2003). People under threat: Americans, Arabs, and Israelis. *Peace and Conflict: Journal of Peace Psychology*, 9, 68-90.
- Pettigrew, T. F., & Tropp, L. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90, 751-783.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67, 741-763.
- Pratto, F., Liu, J.H., Levin, S., Sidanius, J., Shih, M., Bachrach, H., & Hegarty, P. (2000). Social dominance orientation and the legitimization of inequality across cultures. *Journal of Cross-Cultural Psychology*, 31, 369-409.
- Pratto, F., Saguy, T., Stewart, A. L., Morselli, D., Foels, R., Aiello, A.,...Sweetman, J. (2013). Social dominance in context and in individuals: Contextual moderation

- of robust effects of social dominance orientation in 15 language and 20 countries. *Social Psychological Personality Science*, 4(5), 587-599.
- Quinn, D. M., & Crocker, J. (1999). When ideology hurts: Effects of belief in the Protestant ethic and feeling overweight on the psychological well-being of women. *Journal of Personality and Social Psychology*, 77, 402-414.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (vol. 10, pp. 173–220). New York: Academic Press.
- Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcements. *Psychological Monographs*, 80, 1-28.
- Satorra, A., & Bentler, P. M. (1988). Scaling corrections for chi-square statistics in covariance structure analysis. Proceedings of the Business and Economic Statistics Section (pp. 308–313). Alexandria, VA: American Statistical Association.
- Satorra, A., & Bentler, P. M. (1994). Corrections to test statistics and standard errors in covariance structure analysis. In A. von Eye & C. C. Clogg (Eds.), *Latent variable analysis: Applications to developmental research* (pp. 399-419). Thousand Oaks, CA: Sage Publications, Inc.
- Satorra, A., & Bentler, P. M. (2010). Ensuring positiveness of the scaled chi-square test statistic. *Psychometrika*, 75, 243–248.
- Schaberg, L. (2002). Toward a cultural broadening of feminist theory: A comparison of

- everyday outlooks on social roles, dissent, and feminism among the United States and Japanese adults (Unpublished doctoral dissertation). University of Michigan, Ann Arbor.
- Schiefer, D., Mollering, A., Daniel, E., Benish-Weisman, M., & Boehnke, Klaus. (2010). Cultural values and outgroup negativity: A cross-cultural analysis of early and late adolescents. *European Journal of Social Psychology*, 40 (4), 635-651.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advanced in experimental social psychology* (pp. 1-65). New York: Academic Press.
- Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, C. Kagitçibasi, S.-C. Choi, & G. Yoon (Eds.), *Individualism and collectivism. Theory, method, and applications* (pp. 85-119). Thousand Oaks, CA: Sage.
- Shin, H., Dovidio, J. F., & Napier, J. L. (2013). Cultural differences in targets of stigmatization between individual- and group-oriented cultures. *Basic and Applied Social Psychology* 35(1), 98-108.
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.
- Simmel, G. (1917). *Grundfragen der Soziologie* [Fundamental questions of sociology]. Berlin, Germany: Göschen
- Slote, W., & DeVos, G. (1998). *Confucianism and the family*. Albany, NY: State University of New York Press.

- Smith, P. B. & Bond, M. H. (1993). *Social psychology across cultures: Analysis and perspectives*. Hemel Hempstead, England: Harvester Wheatsheaf.
- Smith, E. R., & Henry, S. (1996). An in-group becomes part of the self: Response time evidence. *Personality and Social Psychology Bulletin*, 22, 635-642.
- Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., Bossing, A.,... Yu, S. (2002). Locus of control and well-being at work: How generalizable are Western findings? *Academy of Management Journal*, 45, 453-466.
- Stangor, C. (2004). *Social groups in action and interaction*. New York, NY: Psychology Press.
- Steele, C. M., Spencer, S. & Aronson, J. (2002). Contending with group image: The Psychology of stereotype and social identity threat. In M. Zanna (ed.), *Advances in experimental social psychology*, 34. New York NY: Academic Press.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval Estimation approach. *Multivariate Behavioral Research*, 25, 173-180.
- Stephan, W. G. & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23-46). Hillsdale, NJ: Lawrence Erlbaum.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-48). Monterey, CA: Brooks/Cole.
- Triandis, H. C. (1994). Theoretical and methodological approaches to the study of collectivis and individualism. In U. Kim, H. C. Triandis, C. Kagitçibasi, S.-C.

- Choi, & G. Yoon (Eds.), *Individualism and collectivism. Theory, method, and applications* (pp. 85-119). Thousand Oaks, CA: Sage.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press, Inc.
- Triandis, H. C. (2000). Dialectics between cultural and cross-cultural psychology. *Asian Journal of Social Psychology*, 3, 185-195.
- Triandis, H. C. (2007). Culture and psychology: A history of the study of their relationship. In S. Kitayama, & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 59-76). New York, NY: The Guilford Press.
- Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, 59, 1006-1020.
- Triandis, H. C., & Triandis, L. M. (1960). Race, social class, religion, and nationality as determinants of social distance. *The Journal of Abnormal and Social Psychology*, 61(1), 110-118.
- Tu, W.-M. (1998a). Confucius and Confucianism. In W. Slote & G. DeVos (Eds.), *Confucianism and the family* (pp. 3-36). Albany, NY: State University of New York Press.
- Tu, W.-M. (1998b). Probing the “three bonds” and “five relationships” in Confucian humanism. In W. Slote & G. DeVos (Eds.), *Confucianism and the family* (pp. 121-136). Albany, NY: State University of New York Press.
- van de Vijver, F. J. R., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousand Oaks, CA: Sage.

- van de Vijver, F. J. R., & Watkins, D. (2006). Assessing similarity of meaning at the individual and country level: An investigation of measure of independent and interdependent self. *European Journal of Psychological Assessment, 22*(2), 69-77.
- Weber, M. (1905/2008). *The Protestant ethic and the spirit of capitalism*. Digireads.com publishing.
- Weiner, B. (1995). *Judgments of responsibility: A foundation for a theory of social conduct*. New York: Guilford
- Weisz, J. R., Rothbaum, F. M., & Blackburn, T. G. (1984). Standing out and standing in: The psychology of control in America and Japan. *American Psychologist, 39*, 955-969.
- Whiting, B. B., & Whiting, J. W. M. (1975). *Children of six cultures: A psycho-cultural analysis*. Cambridge, MA: Harvard University Press.
- Williams, R. M., Jr. (1968). Values. In E. Sills (Ed.), *International encyclopedia of the social sciences*. New York, NY: Macmillan.
- Williams, M. J., & Eberhardt, J. L. (2008). Biological conceptions of race and motivation to cross racial boundaries. *Journal of Personality and Social Psychology, 94* (6), 1033-1047.
- Williams, T. P., & Sogon, S. (1984). Group composition and conforming behavior in Japanese students. *Japanese Psychological Research, 26*, 231-234.
- Winter, J. C. F., & Dodou, D. (2012). Factor recovery by principal axis factoring and maximum likelihood factor analysis as a function of factor pattern and sample size. *Journal of Applied Statistics, 39* (4), 695-710.



World Values Survey (n.d.). *World Values Survey Association*

([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)).

Yim, D. (1998). Psychocultural features of ancestor worship in modern Korean society.

In W. Slote & G. DeVos (Eds.), *Confucianism and the family* (pp. 163-186).

Albany, NY: State University of New York Press.

Young, M. (1958, unpublished). *The rise of the meritocracy*. Britain Cambridge, UK:

Blackwell.

Yzerbyt, V., Corneille, O., & Estrada, C. (2001). The interplay of subjective essentialism

and entitativity in the formation of stereotypes. *Personality and Social*

*Psychology Review*, 5, 141–155.

Yzerbyt, V. Y., Rocher, S., & Schadron, G. (1997). Stereotypes as explanations: A

subjective essentialistic view of group perception. In R. Spears, P. J. Oakes, N.

Ellemers, & S. A.

Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 20–50).

Oxford, England: Blackwell.

Zick, A., Pettigrew, T. F., & Wagner, U. (2008). Ethnic prejudice and discrimination in

Europe. *Journal of Social Issues*. 64, 233-251.