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Exploring United States and South Korean National Cultures: Improving Alliance Partnerships

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Abstract

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MSSI, National Defense Intelligence University, 2008

MAS, Embry-Riddle Aeronautical University, 2001

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Understanding the effects of national culture differences on cooperation and performance is a problem facing the United States and South Korean Air Component Command Headquarters. Little is known about the dynamics of national cultural differences within the headquarters, and as a result, little attention is given to educating members on how to manage multicultural relationships. Guided by Hofstede's cultural dimension theory and Schein's model of organizational culture, the purpose of this quantitative quasi-experimental study was to understand the factors influencing national cultural differences among the United States and South Korean staff officers ($N = 178$) assigned to the Air Component Command Headquarters, Republic of South Korea. Primary data were collected using the 2013 Values Survey Module. The following 6 dependent variables were examined: power distance, individualism, indulgence, masculinity, uncertainty avoidance, and long-term orientation. These data were analyzed via bivariate correlation, independent-sample t tests, and one-way analysis of variance. Analysis of variance and t-test findings indicated that an increase in cross-cultural experience (military exchanges, foreign language proficiency, and years lived abroad) influenced national cultural scores. Additionally, to a moderate extent, bivariate correlation analysis showed that national cultures could also be affected (positively and negatively) by differences in participant education levels, military seniority and time served, years lived abroad, military exchanges, and foreign language experience. Implications for positive social change include increasing national cultural awareness among Air Component Command members as a method for improving collaboration and military readiness.

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Dedication

I dedicate this dissertation to my wife and kids who have endured the demands of a 21-year military career and stood by me through the ups and downs of this academic journey. To my wife, Tracy, and my three children, Tyler, Cory, and Hannah, your support and love have been the source of my inspiration and reassurance. I want to thank especially my wife for picking up the loose ends when I could not. To my children, thank you for putting up with my short temper, my uneasiness, and for allowing me the time needed to realize this dream—your unwavering support and patience is the only reason this was possible. Lastly, thank you to my father for his quiet wisdom and for encouraging me to dream big.

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This academic process has challenged me personally, professionally, and spiritually. I would also like to give special thanks to the Airmen of the South Korean Air Force and the United States' 7th Air Force headquarters, whose participation was pivotal to the success of this study. This journey would not have been possible without the support of my committee and their steadfast confidence in my ability as an academic scholar. I truly express my deepest thanks and appreciation for all your insights and guidance throughout this intellectual journey. I must especially thank Dr. Michael Knight whose care, encouragement, and reassurance helped keep my anxiety in check through constant and nonjudgmental support. To my URR, Dr. James Mosko, and committee member, Dr. Anthony Fleming, your collective efforts and expertise demonstrated true professionalism, and I am grateful for all your remarkable help along the way. I would also like to thank Dr. Anne Fetter and Dr. Jones, who were always available to answer the call when I needed help. Thank you all for your inspiration, your commitment, and your mentorship—there is no greater compliment than to be in your company as doctors, teachers, and leaders.

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Chapter 1: Introduction to the Study

Introduction

The Asia-Pacific region contains nearly one-third of the world's population and impacts political and economic relationships across the globe (De Swielande, 2012). To be successful, countries within this region look for opportunities to grow and prosper by leveraging geostrategic relationships with partners and competitors (De Swielande, 2012). This study evaluated the influence of cultural experience on the U.S. and South Korean Air Component Command (ACC) national culture values. Within the United States-South Korea Alliance, the defense of South Korea is the responsibility of the multinational Combined Forces Command (CFC); the ACC is the Air Force branch of this much larger multiservice organization (Air Component Command Regulation (ACCR) 23-1, 2015). One method to promote collaboration, teamwork, and readiness within the Air Component is to address the barriers impacting cultural awareness between the U.S. and South Korean staff officers (Sharp, 2010; Sutter, Brown, & Adamson, 2013).

In 2009, and again in the fall of 2011, the president of the United States (POTUS) initiated a series of steps to refocus the country's diplomatic efforts in the Pacific theater (Sutter et al., 2013). The POTUS called this new approach, the Pacific Pivot (Sutter et al., 2013). The sole purpose of the pivot was to advance U.S. Department of Defense (DOD) cooperative activities and increase partnership-building strategies to further U.S. homeland defense policies in the region (Sutter et al., 2013). The pivot focused on maintaining security interests abroad by investing in diplomatic and economic activities.

The pivot also concentrated on developing a regimen of cross-cultural engagement, outreach, and building partnership capacity (Sutter et al. 2013).

In the 2015 National Security Strategy (NSS), the POTUS proposed that for the United States to remain competitive, it must invest in reducing cultural barriers (The White House, 2015). The NSS called attention to the diplomatic interests in the Pacific and the need to set conditions for engagement and multicultural collaboration (The White House, 2015). The NSS also focused on advancing cultural collaboration, improving trust relationships, and furthering relationships with allies (The White House, 2015). Moving towards the NSS vision, this study examined influences on national culture values and their relationship among the U.S. and South Korean Air Force staff officers assigned to the ACC Headquarters located at Osan Air Base, Republic of South Korea.

Background

Hofstede, G. Hofstede, and Minkov (2010) described culture as patterns of thinking that are learned and reinforced through life experiences and influenced by one's social environment. Culture also can be susceptible to modification, which Hofstede et al. and Nazarian, Irani, and Ali (2013) argued is influenced by the "collective programming of the mind" (p. 7). Hofstede et al. further maintained that collective cultural patterns are what substantiate group learning and coordination and form the basis for cultural divergence. Hall (1976) looked at societies by how they communicated, defining implicit high-context and explicit low-context cultures that further supported Hofstede's divergence concept. Similarly to Hofstede (2001, 2011), Hall's theory fit within the larger multidimensional construct where communication was simply a part of social

layering and was part of the learning behavior paradigm. With that, these scholars identified that national culture consisted of learned and unlearned behaviors that are capable of adjustment and modification; hence, supporting the idea that with a broad understanding, cultural values can change over time. Understanding what variables affect changes to national culture and how those changes are influenced may help practitioners more efficiently predict and mitigate organizational differences before they arise.

Scholars seek to understand how national culture impacts individual and group relationships, where cultural understanding is derived from behavior patterns, rituals, and beliefs (Hofstede, 2001). To comprehend the complexity that underpins cultural patterns, researchers look for useful ways organize ideas, which has generally focused on assessing traditional economic demographics. As a result, there is a flawed tendency only to align society and cultures according to economic strength—a single dimension that helps researchers understand how groups relate to one another (Hofstede, 2011). Looking beyond just economics, gender and age, this study analyzed a number of cross-cultural value dimensions.

This quasi-experimental study was unique because it addressed an under researched area that acknowledged a gap in ACC engagement, collaboration, and diplomacy. This research approach called attention to the benefits of cross-cultural and intercultural experience that were underutilized within the ACC headquarters. To be effective, the Alliance requires that U.S. and South Korean staff officers are able to collaborate and integrate ideas in preparation for national defense and preserving armistice (ACCR 23-1, 2015; SOFA, 2015). A study of cultural relationships within the

military Alliance can help detect group conflicts, recognize inefficient processes, and improve basic human-to-human relationships. The ultimate goal of this study was to understand the role that national culture plays with regards to its influence on military staff relationships (SOFA, 2015).

Although numerous academic studies demonstrate the importance of culture at all levels (national, group, and individual), little is known about how culture impacts the United States-Korea (ACC) and the broader military Alliance. Additionally, comparing national culture with organizational culture is difficult because some organizations embrace national culture while others reject these influences (Nelson & Gapalan, 2003). More needs to be understood within the ACC regarding how military activities, training, education levels, and cultural experience and exposure in general influence changes to national culture as they relate to Hofstede's six value-based dimension (Kirkman et al., 2006).

Nature of the Study

In this study, I explored national culture values with an eye toward understanding what demographic elements affect national culture differences between the U.S. and South Korean staff members. Evaluating the relationship among the variables that influence national values provides a useful theoretical framework for assessing group behavior. An essential part of this study included the distribution of a survey intended to objectively score and assess Hofstede's six cultural value dimensions. The study compared scores between the U.S. and South Korea ACC members. Understanding how cultural values influence behaviors can illuminate relationship differences and identify

methods for coping (Schien, 1994). The impact of cultural differences affects organizational efficiency and requires tools to improve how to share knowledge, promote collaboration, and manage relationships (Hofstede et al., 2010). To be successful, researchers must understand the linkages between learned behavior and national culture (Gächter et al., 2010; Naor et al., 2011; Wilkins & Ouchi, 1983).

Within the United States and Korea ACC, staff officers engage in complex collaborative military activities that require informed decisions and the timely sharing of information (ACCR 23-1, 2012). The diverse elements of national culture described in this study illuminate the character of national values between the U.S. and South Korean military staffs (Hofstede, 2011). Cross-cultural understanding at the national level can dramatically impact how the U.S. and South Korean component members collaborate, and how they achieve integrated successes (Naor et al., 2010; Schein, 1994). Because no group or organization can escape culture, conflicts arise when behavioral expectations clash with values, courtesies, rituals, and moral dilemmas (Hofstede et al., 2010).

The Hofstede and Minkov (2013) Value Survey Module (VSM) was used to record participant responses on a weighted scale. Hofstede et al. (2010) offered this approach as a method for calculating and comparing statistical data samples. The VSM provides researchers with an important tool for determining the differences between national cultures. The independent variables (IV) or predictor variables in this study were: education level, experience living abroad, military rank, foreign language proficiency, exchange program participation, and military time served. The dependent variables (DV) in this study were the six national culture value dimensions: power

distance index (PD), individualism index (IDV), indulgence verses restraint index (IVR), masculinity index (MAS), uncertainty avoidance index (UA), and long-term orientation index (LTO).

Problem Statement

Understanding the effects of national cultural is an important problem facing the U.S. and the South Korean ACC Headquarters (ACCR 23-1, 2012; Gächter et al., 2010; Hofstede et al., 2010; Schein, 1984; The White House, 2015). Little is known about the effects of national culture within the ACC, and as a result, little attention is given to educating members on how to manage relationships within this stressful multicultural environment (7th Air Force, 2014; Schein, 1984, 2010). The U.S. and South Korean staff members can benefit from understanding what influences national culture differences and how those differences impact group behavior. Learning which cultural dimensions are superficial and which ones are deeply rooted in national practices may yield greater coordination, collaboration, and effectiveness between nations (Kim, Sohn, & Choi, 2011; Schein, 1984 & 2010).

Since 1953, the fully combined U.S. and South Korean ACC has supported a task organized ready force of multinational Airmen (Sutter et al., 2013). The ACC is equipped to provide crisis action planning and to conduct offensive air operations in support of the United States-South Korea Mutual Defense Treaty (SOFA, 2015). Effective collaboration skills are essential for accomplishing primary group assigned tasks (Cha, 2012; Manyin et al., 2012). Working within a culturally diverse and functionally complex organization like the ACC requires a high degree of cultural aptitude, learning, and awareness (SOFA,

2015; Schein, 1984). By understanding the differences in national culture values, staff members can be better prepared to support the Alliance and defend the nation when called upon (Gächter et al., 2010; Hofstede et al., 2010; Schein, 1984).

Purpose Statement

The purpose of this cross-sectional, quasi-experimental study was to understand the cultural dimension relationships (differences and influences) that existed between the U.S. and South Korean Air Force staff members assigned to the ACC Headquarters located at Osan Air Base, Republic of South Korea. Using Hofstede's et al. (2010) national culture value theory and the Hofstede and Minkov (2013) VSM, this study was able to score and measure the U.S. and Korea military national cultural values. In this study, I examined the strength of variable correlation and the differences between subgroups and evaluated the impact of IVs across the six national culture value dimension DVs: PD, UA, IDV, IVR, MAS, and LTO.

For this research, culture variance was defined as the change in the collective programming of the mind that distinguished one group of people from another (Hofstede et al., 2010). By applying this rationale, culture can then be framed as a system of accepted values that can then be grouped into related measurable dimensions (Hofstede et al.). Comparing these dimensions between nations provides a basis for understanding key contributors leading to cultural divergence. Cultural divergence occurs when rituals, roles, customs, and language cause groups to become increasingly dissimilar or separated over time (Hofstede et al.).

Research Questions

Measuring national characteristics of culture is useful for understanding group differences. The following research questions and hypotheses were derived from the Hofstede's national culture value dimension theory (Hofstede & Minkov, 2013). Hofstede's theory highlighted variances (positive and negative) between the U.S. and South Korean ACC staff officer value dimension scores.

The central question to this study was: How do national cultural values explain the U.S. and South Korea ACC officer differences and can those differences be influenced?

Research Question 1: How do the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country correlate with the U.S. and South Korean cultural value dimension index scores for PD, IDV, IVR, MAS, UA, and LTO?

H_01: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly correlated with the U.S. or South Korean national value indicators for PD, IDV, IVR, MAS, UA, and LTO.

H_A1: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are

statistically significantly correlated with U.S. or South Korean national

value indicators for PD, IDV, IVR, MAS, UA, LTO.

Research Question 2: What is the nature of the relationship between the IVs of

education level, years served in the military, military rank, foreign language

proficiency, military exchange program participation, and total years lived abroad

in another country and the DV of PD?

$H_0$2: The IVs of education level, years served in the military, military

rank, foreign language proficiency, military exchange program

participation, and total years lived abroad in another country are not

statistically significantly different among U.S. or South Korean national

value PD indicators.

H_A2: The IVs of education level, years served in the military, military

rank, foreign language proficiency, military exchange program

participation, and total years lived abroad in another country are

statistically significantly different among U.S. or South Korean national

value PD indicators.

Research Question 3: What is the nature of the relationship among the IVs of

education level, years served in the military, military rank, foreign language

proficiency, military exchange program participation, and total years lived abroad

in another country and the DV of IDV?

$H_0$3: The IVs of education level, years served in the military, military

rank, foreign language proficiency, military exchange program

participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value IDV indicators.

H_A3: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value IDV indicators.

Research Question 4: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of IVR?

H_04: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value IVR indicators.

H_A4: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value IVR indicators.

Research Question 5: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of MAS?

> H_05: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value MAS indicators.

> H_A5: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value MAS indicators.

Research Question 6: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of UA?

> H_06: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation and total years lived abroad in another country are not

statistically significantly different among U.S. or South Korean national value UA indicators.

H_A6: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value UA indicators.

Research Question 7: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of LTO?

H_07: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value LTO indicators.

H_A7: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value LTO indicators.

Research Question 8: What are the differences between the U.S. and South Korean ACC staff member national value dimensions (PD, IDV, IVR, MAS, UA, and LTO)?

$H_0 8$: There are no statistically significant differences between the U.S. Air Force staff member value dimensions and the South Korean Air Force staff member value dimensions.

$H_A 8$: There are statistically significant differences between the U.S. Air Force staff officer value dimensions and the South Korean Air Force staff officer value dimensions.

Theoretical Framework

Hofstede's (2011) cultural theory is based on the six cultural dimension indicators (PD, IDV, IVR, MAS, UA, and LTO) that provide a basis for quantifying national value differences. Hofstede further developed a survey that measured national cultural values (country-level). Over time, Hofstede learned that understanding culture was imprecise and required the application of statistical analysis to operationalize results, which could then be used to improve cultural awareness. Combining between-county components allowed Hofstede to assess cultures and avoid the distractions and problems with individual dispositions and personalities plaguing other researchers. Divergence theory, as Hofstede et al. (2010) supported, describes the ascendancy of national culture. This theory explained how culture drives values regardless of organizational influences; the value structures in this sense remain fixed creating increased variance over time (Naor et al., 2010). Hofstede's national value theory is centered on defining group norms by

recognizing national boarders. This approach allows scholars a way to bundle cultural patterns and to facilitate comparisons. In Chapter 2, I provide a more detailed description of Hofstede's theoretical framework.

Schein's (1984) organizational culture theory can also help to explain the linkage between Hofstede (2011) and Hofstede et al.'s (2010) dimensions of national values and organizational effectiveness. Schein looked at culture as the "pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration" (p. 3). Likewise, Schein's (1994) application of convergence theory explains that as nations grow and mature economically, their organizations will also become more similar. Similarities evolve over time as societies adjust to the surrounding environment (Naor et al., 2010; Sarala & Vaara, 2010). Hence, it is commonly understood that organizations can and do alter the behavior of people, by undermining the deeply rooted nature of national culture (Naor et al., 2010). Researchers, business owners, policy practitioners, strategic planners, and others demand methods for understanding how to operationalize culture, and this study provides such an example for the U.S. and South Korean members assigned to the ACC (Ghemawat & Reiche, 2011; Schein 1984, 2010).

Definitions

Anthropology: The study of humans in their physical, social, and cultural variations integrated into traditional human societies (Hofstede et al., 2010, p. 515).

Correlation: The degree of common variation related to the association between two variables (Hofstede et al., 2010, p. 32; Laerd, 2015).

Cultural identity: The conscious interpretation as a member of a group defined by national or regional origin (Hofstede et al., 2010, p. 23).

Dimensions: A broad term used to describe an independently measurable phenomenon; in this case, dimensions are used to describe the various attributes of espoused cultural values (Hofstede et al., 2010, p. 29).

Espoused values: Publically recognized group principles deemed necessary for describing relationships and their behaviors (Schein, 2010, p. 15). Unconscious and broad tendencies to prefer a particular state of affairs—considered separate from practices (Hofstede et al., 2010, p. 526)

Group norms (In-group/Out-group): Group values that develop over time (Schein, 2010, p. 14). The method of classification that defines "we" versus "they"; affects gender and race (Hofstede et al., 2010, p. 16).

National culture: The collective programming of the mind that is acquired from learning and exposure; defined by the experiences that one learns by growing up in a particular country (Hofstede et al., 2010, p. 520). National culture is explained by Hofstede et al. (2010) as the "collective programming of the mind" distinguishes the members of one group from another recognized through the unique application of values and beliefs" (p. 520).

Observable artifacts: The physical and observable expressions that define group culture, which includes overall style, routines, interactions, celebrations, jargon, and dialect (Kinicki & Kreitner, 2006, p. 44).

Organizational culture: Schein (1984, 1990) described organizational culture through the complex relationships that contribute to group awareness; namely, "observable artifacts and espoused beliefs and values" (p. 111). Similar to national culture, organizational culture is framed by shared underlying assumptions, such as values and beliefs that illustrate the way to think, feel, and act (Schein 2010; Zohar & Hofmann 2012). More specifically, Hofstede (2011) explained that organizational culture differs mostly at the visible level through symbols, heroes, and rituals, which are related to specific practices. Practices that are deeply learned and integral to the organization can affect the formation of espoused values and inform national cultures.

Organizational effectiveness: Atlaf (2011) described effectiveness as the degree to which an organization is successful in meeting its stated objectives or future goals (p.163).

Assumptions

A major assumption employed in this study was that national cultural values could be changed through demographic influences and that by measuring cultural values they would adequately capture differences between groups. It was assumed that the South Korean and U.S.' commanders supported the study and would provide an opportunity for me to gain access to the population. Another assumption levied in this study was that the VSM would provide the measurements needed to relate national culture differences and compare relationships. Regarding sampling and data collection, this study assumed that although some military members may work at the headquarters, they might not be directly assigned to the component staff agencies, which would make it difficult to

identify the entire sampling frame. The survey would only be given to ACC members to ensure maximum generalizability (Zheng, Yang, & McClean, 2010). It was also assumed that the survey responses would accurately reflect the majority of ACC national behaviors. It was assumed that the statistical outcomes would only be influenced by the variable being measured at that time. Finally, it was assumed that the predictor variables were considered to be relevant to the DVs of each national subgroup (The U.S. and South Korea).

Constraints and Limitations

A major limitation of the study was the uncertainty associated with maintaining external validity due to sampling access limitations. Maintaining an ability to generalize results throughout the headquarters was am important part of this study and required access to participants who were geographically separated (Miles & Huberman, 1994, p. 279). Sampling bias was also a constraint because the participants were self-selected based on convenience. Each participant completed surveys at their leisure, away from a formal academic setting. Internal validity was challenged because survey responses were not validated independently, and specific within-group reliability was not assessable. Another constraint was the need for all responses to remain anonymous, which influenced the specificity of the survey questions and how the survey's information was obtained. According to Hofstede's instructions, dimensions should be correlated as close as possible to country-level scores avoiding individual comparisons (Hofstede & Minkov, 2013). Taras (2009) argued that "culture is a pervasive construct," which explains the vast selection of diverse and rich lessons to be applied (p. 2). Because this study used a well-

known survey instrument, it limited the level of detail and research scope. As a result, there was little flexibility allowed to explore other aspects of culture or evaluate additional predictors. The VSM manual provided the scoring procedures for the six dependent variables.

The study methodology was also open to potential problems due to lack of data clarity between the factor variables and within the variable subgroups. When it came to cultural behaviors and related perceptions, in this study I did not consider member attitudes or the influences related to body language, observable behavior, or unobservable staff interactions; I relied only on self-reported answers based on individual persecutions. As with any survey, there was no way to ensure that the responses were honest and truthful. This approach may have limited the general veracity of each response and potentially even degraded the overall findings.

Research Significance and Implications for Social Change

Recent U.S. emphasis in Pacific theater cooperative security programs highlights the need for a comparative analysis exploring apparent gaps in how to best use cultural knowledge. By analyzing the relationships that exist between national cultures within the ACC Headquarters, the United States-South Korea Alliance will be better prepared to defend democracy and freedom against the Democratic People's Republic of Korea (DPRK). A critical attribute of the U.S. geo-strategic partnering is maintaining access to the main regions of the world that are deemed essential for furthering national security (Carlisle, 2013). This research is unique because it addressed an underexplored area that is critical for sustaining the 63-year-old U.S. and South Korean Alliance, considered to be

the strongest in the world (Zumwalt, 2012). In this study, I embraced the ideals of social change by illuminating the importance of culture awareness and promoting geopolitical relations.

To be effective, the Alliance depends on the seamless integration of the U.S. and South Korean staff officers during all phases of conflict. Reducing cultural barriers by encouraging programs that improve collaboration is an important Alliance mandate. The POTUS explained in the 2009 Joint Vision Statement that:

> Social change is a grounding principle of the Alliance which is mandated ". . . To build a better future for all people on the South Korean Peninsula, establishing a durable peace leading to peaceful reunification on the principles of free democracy and a market economy. (The White House, 2009, p. 2)

A study of cultural relationships within the military Alliance can help identify organizational resistance, recognize inefficient processes, and improve combined warfighting readiness. As bilateral partners, it is critical that both sides are intimately engaged in the current state of peace and stability that exists on the South Korean Peninsula.

Finally, insights from this study may benefit those engaged in Pacific Theater interoperability processes, cooperative security programs, and national defense policy development. This study may assist Airmen at all levels assigned to the ACC Headquarters to better enable cooperation and communication within their work centers. This study may also be used to educate policymakers charged with managing

multicultural organizations, where both unilateral and broad Alliance policies are exercised to build and sustain organizational trust (Callahan et al., 2012).

Summary

The United States-Korean Alliance is charged with defending the Republic of Korea (ROK; SOFA, 2015). Understanding the differences in national culture values can help researchers and practitioners improve organizational collaboration (Schein, 1994, 2010). Ghemawat and Reiche (2011) warned that a "failure to appreciate and account for [cultural differences] can lead to embarrassing blunders, strain relationships, and drag down performance" (p. 1). There remains a lack of research with how cultural homogeneity at the national level impacts an organization's ability to collaborate and affect change across functional domains (Naor et al., 2010; Shi & Wang, 2010; Soares et al., 2006; Yoo et al., 2011). Without addressing the cultural differences between the U.S. and South Korean Airmen, there will remain a deficiency in organizational collaboration (Naor et al., 2010; Schein, 2010; Zohar & Hofmann, 2012). By studying the influences to these cultural relationships within the ACC, leaders will be better postured to address cultural resistance by improving collaboration, building trust relationships, and strengthening military readiness.

Chapter 2: Literature Review

Introduction

For over 63 years, the United States-South Korea military Alliance and its growing network of civilian agencies and coalition members have protected and defended the ROK (SOFA, 2015). Maintaining peace and stability within the region and protecting U.S. interests aimed at preserving the status quo are accomplished through a a complex arrangement of bilateral defense measures as directed by the United States- South Korea Mutual Defense Treaty (SOFA, 2015). The Treaty relies on Alliance cohesion and bolsters deterrence through modest, yet significant diplomatic and economic trust-building relationships (SOFA, 2015). ACC interactions are exercised exclusively between multinational cross-service military components that include the Air Force's combined ACC (Armitage & Nye, 2012; Kim, 2010; SOFA, 2015). The central purpose of the Alliance is to preserve security and defend South Korea, yet there are distinct and uncertain cultural variances between the U.S. and Korea military personnel that can impede collaboration, and thereby reduce military readiness. By understanding national value systems, it is possible to identify paths to reduce or mitigate group differences. Because there are noticeable differences in race, ethnicity, and national cultures, there are also presumed to be unintended miscalculations that can impact work group cohesiveness with the ACC (Hofstede et al., 2010; Nazarian, Atkinson, & Greaves, 2014).

Identifying where cultural variances are the greatest provides a marker for educating military service Airmen. The goal of this study was to understand what factors influenced the national culture values of the U.S. and South Korea staff officers assigned

to the ACC Headquarters (Dauber et al., 2012; Hofstede et al., 2010; Nazarian, et al., 2013). To appreciate the significance of national culture within the United States-Korea ACC, a study was needed to examine these complex relationships (Dauber et al., 2012; Hofstede et al., 2010; Homburg & Pflesser, 2000; Schein, 1984 & 2010). The purpose of this research was to explore how cultural values are influenced within the ACC by testing demographic associations and value differences.

In Chapter 2, I review the existing literature and available research and explore military cultural demographics to understand their associative significance with national cultural values. In this chapter, I also summarize the conceptual foundation for the study, highlighting Hofstede's (2011) value variance constructs along with Schein's (1990) model of organizational culture. The primary purpose of this chapter was to present current and relevant literature and highlight potential influences on national culture values within the ACC. The literature review also offers insight into the study's central question clarifying how Hofstede's national culture value dimensions can help to explain the ACC officer cultural variances and what variables influence them. In Chapter 3, I describe how the study was implemented using Hofstede (2011) and Schein's (1990) theoretical understanding of culture.

Literature Search Strategy

An important outcome of this study addressed the connection between cultural differences and social identity. How workgroup variances influence an us versus them prejudice can exacerbate intergroup conflict (Schein, 1985, 1996). In a similar fashion, researchers maintain that cultural differences are profoundly affected by experience and

learning, which supports the notion that culture does, in fact, have convergence qualities (Hofstede et al., 2010; Vaara, Sarala, Stahl, & Björkman, 2012). At the core of Hofstede's model are *values*, the "broad tendencies to prefer certain states of affairs over others" (Hofstede, 1994, p. 8; Hofstede et al., 2010). According to Hofstede's theory, values can influence a person's cultural norm at the most basic level. Values in this regard denote how things ought to be. The assumption is that values strongly influence personal and group behavior (Dahl, 2003; Hofstede et al., 2010).

The literature review offered in this research used a variety of reputable and scholarly search resources including EBSCOhost's International Security and Counter Terrorism Center and the Military and Government Collection. Databases included the Sage Journal, Google Scholar with World Catalog selections set to recognize Walden University sources, Embry-Riddle Aeronautical University sources (where I am an Assistant Professor), and ABI/INFORM Complete. Other related databases included ProQuest, Academic Search Complete, and Business Source Complete. All academic sources were parsed using peer-reviewed journal selections. To the maximum extent possible, government databases from the U.S. Department of State and the DOD were used to address the United States' position regarding ROK diplomatic strategies. Additionally, government related Federally Funded Research and Development Centers (FFRDC) and the U.S. defense think tanks, such as the Brookings Institute and the Center for Strategic and International Studies were also consulted. Initial source selection using the terms *Hofstede, Schein, national value variance*, and *dimensions of culture* returned 17,352 results. Searches were refined to include *culture and organizational assessment,*

culture theory, and *United States-Korea culture differences*. Baseline research also touched on the *United States strategic interests*, *military readiness*, and *United States Forces in Korea*. In all, 763 articles, publications, proceedings, and government documents were carefully considered; 176 records were evaluated, of which 132 were cited in this research study.

Hofstede and Schein Theoretical Models

According to Sabatier and Weible (2014) and Shafritz, Ott, and Jang (2011), organizations conform and react to a host of varying influences defined by the environment, which makes theory and conceptual thinking difficult to predict. Hence, it can be assumed that a particular theory evolves in relation to the environment from which it is tested. As a basis for understanding the impact of culture on organizations, I chose Hofstede's (1984, 2013) cultural value dimensions theory as derived from the VSM and Schein's (1984, 1990) model of organizational culture. Hofstede's (2011) cultural dimension theory and Schein's (1984, 2010) organizational culture model provided the basis for analyzing and assessing the influence of national culture on organizations (Hofstede and Minkov, 2010). Schein and Hofstede's approaches allowed for a number of statistical examinations and provided a common foundation from which to test cultural relationships (Hosfstede & Minkov, 2013; Hofstede, et al., 2010; Taras, 2009; Kirkman et al., 2006; Stephan & Uhlaner, 2010;). Schein's (1984, 1990, 2010) organizational culture model served to operationalize the six Hofstede et al. (2010) dimension-based value scores and provided context for further analysis. Hofstede's theory underlines an approach for assessing culture differences between groups. Understanding how

experiences, knowledge, and personal characteristics affect national culture values is made possible through Hofstede's model.

Schein (1984) argued that values reflect part of organizational culture, which when applied to the ACC staff environment can be used to plot empirical cultural differences. Using Hofstede's (2011) theoretical ideas on value dependency can inform conclusions based on interdependent associative markers. Statistically derived cultural information can then be used to inform organizational strategies (Hofstede et al., 2010; Inkeles & Levison, 1969; Levison, 1969). These procedures make it possible to determine the cultural value association between South Korean and U.S. ACC staff officers by identifying degrees of value variance. Furthermore, both frameworks operationalize and test Sabatier and Weible's (2014) recommendation allowing for continuous learning in response to the way cultures, institutions, and organizations incorporate new ideas (G. Hofstede et al., 2010; Schein, 2010; Shafritz et al., 2011)

Hofstede's Cultural Dimension Theory

Hofstede's cultural research defines how value dimensions can be measured and is arguably the most influential social science culture-based research model in existence (Fang, 2010). Hofstede's et al. (2010) research addressed the role of culture and organizations and is responsible for educating and indoctrinating generations of prominent scholars in the field (Berry, Guillen, & Zhou, 2010; Fang, 2010; Taras, 2009). Hofstede's (1978, 1991, 2013) theory is used around the world, showcasing the role of cross-national values with an eye toward differentiating dimensional theory related to

national and organizational culture research. Hofstede used value scores as an instrument

to test and understand cultural norms (Lowe, & Gibson, 2006; Taras, 2009; Kirkman).

Hofstede's theory is useful because it provides a validated method for

operationalizing culture, which is also helpful in identifying areas of cross-cultural

variance. Hofstede (2011) and Hofstede et al. (2010) argued that national cultures can

and do change over time; although this was also determined to be a rare occurrence.

Recent research suggests some degree of doubt as to any one culture's real longevity,

further complicating how values can and should be measured (Dauber et al., 2012).

Similarly, Dauber et al.'s (2012) research further confirmed the challenges of addressing

the configuration of organizational culture, structure, and performance. In light of cogent

research by Allaire and Firsirotu (1984), Homburg and Pflesser (2000), and Hatch (1993)

debating the manifestation of values and assumptions on behavioral patterns, national

culture value dimensions offer a basis for testing cultural differences. The benefits of

examining cultural differences through empirical data allow researchers to compare

country variances (Maznevski, Gomez, DiStefano, Noorderhaven, & Pei-Chuan, 2002;

Nazarian, 2013; Sharma, 2010; Soares et al., 2006). Hofstede's theory is based on six

value dimensions that are numerically weighted resulting in comparable index values.

These values can be either positive or negative, but generally fall between 0 and 100;

these values can also be weighted and adjusted to offset negative values (refer to Chapter

3 for how to apply coefficient recalculations). In the following subsections, I describe

Hofstede's six dimensions in greater detail.

Power Distance Index (PD). "Power distance is the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally" (Hofstede et al., 2013, p. 61). More specifically, an important aspect of this construct is that PD describes the level of inequality that is endorsed by the followers and the leaders. It would be incorrect to define power distance as simply a way to understand class and status hierarchies; power distance explains an accepted level of dependence or independence from leadership or authority. Power distance addresses:

- Superior and subordinates relationship

- Hierarchy and role of inequality

- How senior (older) people are treated

- Legitimization of power within society (Hofstede et al., 2010)

Individualism Index (IDV). This dimension demonstrates "the degree to which individuals are integrated into groups" (Hofstede et al., 2013, p. 90). The touch-points within these constructs are determined by the how each group (or organization) dominates the interest of the individual. Individualism and collectivism can be understood by looking at the following examples:

- How clans and families shape individual behaviors

- How loyalty is viewed

- Privacy versus belonging

- "I" versus "we"

- Relationship and task deconfliction

- Independence compared to in-group and out-group norms (Hofstede et al., 2010)

Masculinity Index (MAS). This construct examines the degree to which a society parses out emotional roles between sexes. Those who are masculine are said to be assertive and focused on material success, while femininity describes an overlap between men and women concerning modesty and the need for quality of life (Hofstede et al., 2010). Masculinity and femininity examples are as follows:

- Sex role differentiation

- Family and work balance

- How facts and feelings are espoused (Hofstede et al., 2010)

Uncertainty Avoidance Index (UA). This concept addresses society's "tolerance for uncertainty and ambiguity" (Hofstede et al., 2010, p. 194). Those social systems with high scores are uncomfortable in unstructured situations and seek balance through the strict applications of rules, where tolerance is low and philosophical exploration is repressed. UA is an important denominator between the U.S. and South Korean cultures, as it reflects deep-seated behaviors between the two groups and magnifies organizational discontinuity, which is paramount for ensuring Alliance readiness. Some examples of uncertainty avoidance are:

- Manner in which uncertainty in accepted

- Willingness to accept ambiguity

- Desire for order and discipline versus subjectivity

- Tolerance of new ideas and curiosity (Hofstede et al., 2010)

Indulgence Index (IVR). This dimension describes those societies that "allow for relatively free gratification of basic and natural human drives related to enjoying life and having fun" (Hofstede et al., 2010, p. 279). According to Minkov, Blagoev, and Hofstede (2012) and the World Value Survey (2015), indulgence and restraint are also defined by happiness, life control, and the importance of leisure time. This dimension speaks to work ethic and the general integrity of groups; examples are:

- Feeling of strength and control over perceptions of helplessness

- Pessimism versus optimism

- How leisure is perceived and exercised

- Defines boundaries; level of involvement (Hofstede et al., 2010)

Long-Term Orientation Index (LTO). Hofstede and Minkov (2010) relate LTO to "perseverance and thrift," putting emphasis on future rewards (p. 239). Those with small LTO scores are said to promote qualities focused on the past and present; that is, an emphasis on tradition, respect, and fulfilling group responsibilities are typical attributes. Examples of LTO would be:

- A penchant for spending rather than saving (thrift is a central element of LTO)

- Immediate results and gradual and sustained successes

- Personal adaptiveness versus personal stability

- Status in society (Hofstede et al., 2010)

Understanding Value Dimensions

Values are frequently introduced early in life and unconsciously reinforced by the environment (Hofstede et al., 2010). Although values are rooted deep within the human core, they can be shaped and molded in response to the environment (Hofstede et al., 2010). Unlike organizational culture, national culture values are strengthened by history, tradition, and repetition and can be difficult to change (Hofstede, 2011; Minkov & Hofstede, 2012; Schein, 1984). Understanding what layer of culture can be impacted can open opportunities for organizational planning to bring cultural differences in-line.

Understanding the effects of national culture is difficult because of the learning differences that are shaped by one's environment. These conditions are uniquely aligned with individuals, groups, organizations, and nations (Hofstede, 2011; Hofstede et al., 2010; Schien, 2010). Hofstede's theory helps to explain the complex nature of culture by depicting the varied elements that are changeable, observable, and immobile. Hofstede's theory provides a layered approach to understanding group and individual behavior. The outside layer consists of symbols such as the way one dresses, which can easily be changed or altered; this layer is transparent and easily observed. The layering continues inward toward the core—heroes, which help to explain the imagery of cultures; this explains what people and groups hold to be true and where they get their inspiration (Hofstede, 2011; Hofstede, et al., 2010). The next layer addresses rituals, how outsiders can readily observe rituals, which helps to define the way that groups think and act. Rituals include spoken language, discourse, and they way one presents themselves to others (Hofstede, 2011; Hofstede, et al., 2010). Cultural values are the final layer and

reside deep within people and are central to framing one's core existence (Hofstede et al., 2010). Each of Hofstede's six value dimensions help to describe how groups and nations perceive themselves; the layers provide the framework from which national cultures reside.

Schein's Organizational Culture Model

Schein's (1984) approach to studying cultural paradigms is based on the Kluckhohn and Stodtbeck (1961) model, which also describes a layered design that sees culture as an extension of man's natural dependency to act. That is, culture brings to light the natural and competitive tendencies of individuals, where man seeks to either master nature or harmonize with it. Similar to Hofstede (1984, 1991, 2011), Schein looked at culture through the existence of group ownership, where group identification is defined only by the cultural unit of which it exists.

Schein's (1984) views on national culture and organizations related closely to Hofstede's value theory components; note the similarity between Hofstede's theory of value measurement and Schein's model, which recognizes how values inform group needs. Safi (2010) and Wu (2006) explained organizational culture as a set of constructs that manifest learned behavior over time as members grow and learn. Cultural changes take place when members can adapt to a variety of internal and external environmental influences. Nes, Solberg, and Silkoset (2007) explored Schein's (2010) research measuring the displacement between trust and cooperative behaviors, which provided a critical link for understanding how cultural influences impact trust-building relationships.

Schein (1984, 1990, 2010) believed that ignoring the influences of national culture increases organizational risk, and therefore, he argued that—"practices that contradict prevailing cultural values are susceptible to employee rejection" (Kull & Narasimhan, 2010, p. 82). Schein's organizational culture model (1984, 2010) demonstrated relationships expressed through observable artifacts, values, and basic underlying assumptions. Hence, values reflect part of the culture, which supports Hofstede's (2011) understanding that national culture variances are closely related to how organization's interact and how values inform observable behaviors. Schein's (1984, 1990, 2010) organizational culture provides a reference to relate Hofstede's et al. (2010) national cultural theory.

Artifacts. Schein (1984) referred to this layer as the outward and visible environment in which a group develops patterns and behaviors. Artifacts are generally physical articles that are symbolic towards some aspect of culture. Schein warned that artifacts are easy to identify and understand within context, but it is often difficult to grasp why organizations behave as they do.

Espoused Values. This level of Schein's (1984) model highlighted the value streams that portray a much more personal and in-depth perspective into what "people say the reason for their behavior is" (p. 1). Values demonstrate how a group rationalizes behavior and how they learn and grow. Values are conscious and explainable; they are identifiable and tangible—thus, they can change over time.

Underlying Assumptions. According to Schein (1984), assumptions describe the unconscious feelings that drive behaviors and value formulation. Values can be learned and unlearned in response to cultural variations (Hofstede et al., 2010). As groups interact within their environment, they are guided by a value system that informs how they make decisions and solve problems. As problems are solved over time, they are progressively removed from the groups conscious and become integral to how the group behaves, feels, and acts (Schein, 1984). In this case, underlying assumptions are not easily changed or altered and help researchers understand why national culture values appear ingrained and immobile.

Schein's (1984, 2010) organizational model helps show cultural relevance by demonstrating the connections with Hofstede's national values; this allows researchers to operationalize culture across component organizations. These frameworks provide mature theoretical ideas about national culture and their influence on institutions. This approach offers opportunities for improving ACC collaboration that bridges national culture with organizational culture (Hofstede et al., 2010; Inkeles & Levisnon, 1969; Levison, 1969).

Literature Review, Variables, and Concepts

Knowing where culture fits within an organization can help managers improve interoperability with multinational partners and enhance an organization's efficiency (Podrug et al., 2006). Hofstede (2011) explained that culture is derived from a complex collection of shared knowledge, values, and experiences. More specifically, the basis for

cultural knowledge is grounded in one's experiences. These experiences begin early in childhood, are defined and hardened through learned participation, and are eventually reinforced through repetition (Hofstede, 2010; Sharma, 2010; Soares et al., 2006).

The Complexity of National Culture

The cultural debate began to take shape publically within growing academic circles in the 1950s and 1960s. During this period, Kroeber and Kluckholn (1952) released their research, titled, "Variations in Value Orientations," which offered a new paradigm for viewing culture attributes. Kroeber and Kluckholn's approach highlighted the anthropological assumptions associated with individuals and their interactions with their environment. There is no universally agreed upon definition of culture from which to base certainty, which leaves researchers with a vague and over-simplified understanding of cultural concepts (Hofstede, 2011; Hofstede et al., 2010; Naor et al., 2010; Yoo et al., 2011). Over-simplification of culture results in gross errors when researchers attempt to categorize or operationalize elements of culture once identified. Sekaran (1983) and Kluckhohn and Stodtbeck (1961) explored the effects of culture as an application for decision-making; they offered that culture is difficult because it is nearly impossible to sort through the infinite patterns and nuances in a clear-cut fashion.

Culture is difficult because of the complex elements most associated with group identity, such as the customs and capabilities that influence the way one learns and interacts. Sores et al. (1983) and Sojka and Tansuhaj (1995) explained that traditionally, scholars gravitate toward language differences and communication, the involvement of material and artifacts, and the patterns of values and beliefs. More specifically, these

approaches cannot be used interchangeably as indicators or predictors to understand the impact of culture on decision processes.

Communication is an essential element of culture that can restrict how groups interact. Hall and Mildred's (1990) classification of high and low cultures attempts to distinguish how different cultures communicate as the "sum of their learned behavior patterns, attitudes, and materials" (Nishimura, et al., 2008, p. 784). The various verbal and non-verbal interactions between groups present culturally specific codes that if understand, can improve harmony and understanding by those who are aware of them (Hall & Mildred, 1990; Nishimura, et al., 2008; Schein, 1990). Another alternative to reduce cultural variance is to look at culture as a series of metaphors – this approach aims to unite members culturally through activities or institutions that they might identify with (Soares et al., 2006). The only right solution appears to be the one that provides support to counter-balance relationship differences and anomalies by finding areas of inefficiency.

Soares et al. (2006) offered that cultural research in general tends to be mostly interested in topics surrounding language, material goods, and value systems where an understanding of culture can be used to decode how one sees the world. Likewise, belief systems can be used to empower cultures to understand better their place in the larger world; it provides a lens through which one might assess or identify a particular behavior. Regarding working relationships and processes, Lewin (1951) rendered similar conclusions to help understand the origins of organizational differences. Knowing where

culture fits within an organization can help managers improve interoperability and enhance an organization's efficiency (Podrug, Pavicic, & Bratic, 2006).

Dauber et al. (2012), Schein (1984, 2010), and Sagiv and Schwarz (2007), examined the differences in cultural values illuminating similarities between national culture and organizational culture. In a similar fashion, Hatch (1993) rationalized diversity through the understanding of cultural relationships and groups may boost organizational learning. In other instances, culture can impede progress through controversy and friction. Dauber et al., and Sagiv and Schwartz maintained that how people interact is influenced by the role that national culture plays within their particular group. Thus, because organizations must comply with social pressures, they must also acknowledge the social boundaries that are defined by culture (Tung, 2008). These cultural barriers explain the difficulty with ACC group interaction as examined in this study.

Sharma (2010) and Bond (2002) cautioned that measuring culture without acknowledging national borders and individual influences could limit how data is assessed, and lessons are applied. Since Hofstede's 1984 publication, *Culture's Consequences: International Differences in Work-Related Values*, researchers have paid homage to his seminal work tackling the complexity of cross-cultural influences on organizations. Schein (1984, 2010) similarly reinforced the importance of studying national cultures to understand their impact on organizations. Soares et al. (2006) and Yoo et al. (2011) likewise strengthened the culture dialog commenting on the elusiveness and difficulty in differentiating one cultural factor from another, among a variety of inter-

related variables. The usefulness for understanding the culture of national, group, and individual levels continues to challenge social scientists. Notwithstanding the difficulties in measuring cultural variance, conceptually and operationally, to be helpful, culture must be deconstructed to reflect variation within it. In this respect, using the Hofstede et al. (2010) dimension's based framework provides a data-driven quasi-systematic approach for identifying cultural differences across national lines and between groups.

Researchers and scholars agree that national culture in its simplest form can best be explained by understanding learned behaviors. The evolution of culture is said to be a symptom of mental programming, experiences, and reprogramming, which are informed by one's social environment (Hofstede et al., 2010). However, studying a particular culture can be difficult because they are not necessarily static—by this definition, cultures can and do change. Cultures continue to mature over time in response to the natural interactions that compete one culture against another—in this case, it can be said that culture posses convergence qualities (Dauber et al., 2012; Hofstede, et al., 1991, 2010; Krober & Kluckholn, 1952; Naor et al., 2011; Schein 1984, 1990, 2010; Wilkins and Ouchi, 1983).

Capturing useful culturally relevant data is difficult. Historically, researchers have struggled to conduct cross-cultural studies due to their complexity and inability to eliminate or control specific phenomena and their influences. Hence, behaviors that are influenced by economics, religious beliefs, language, and education are difficult to isolate, and therefore, make analyzing cross-cultural patterns challenging (Sekara, 1983; Soares, Farhangmehr, & Shoham, 2006). Following Hofstede's (2009) model, this

defined the existence of cross-cultural values along national boundaries within ACC, as a method to establish a common framework and reference. Although it is commonly recognized that Hofstede's cultural dimensions are limited in their applicability to individuals, they are still widely accepted as a means to establish a useful theoretical foundation (Sharma, 2010). If values can be measured and scored to better explain their impact and relationship to a corresponding problem area, then it may also be possible to predict variable interactions within ACC (Inkeles & Levinson, 1969; Soares et al., 2006, p. 270).

Hofstede's International Business Machines (IBM) Study

In 1965, Hofstede's work with the IBM Corporation led to an analysis of organizational and national values (Hofstede et al., 2010). From this multi year study, Hofstede learned that organizational beliefs and orientations were shaped by national culture (Dauber et al., 2012; Hatch, 1993; Schein, 1984, 2010; Shi & Wang, 2010; Soares et al., 2006; Yoo, Donthu, & Lenartowisc, 2011). Eventually, Hofstede was able to gather over 117,000 samples from various countries. Hofstede (1980, 1995) learned that organizational systems could replicate national characteristics. By applying Hofstede's theory to ACC national values, it may also be possible to measure behavioral differences between the U.S. and South Korean staff officers (Hofstede et al., 2010; Hofstede & Minkov, 2013; Schein, 1984; Tsui, Nifadkar, & Ou, 2007).

Organizational Value Differences and Dimensional Analysis

Individual behavior and individual values are both linked to group characteristics and directly inform one's national values. This construct suggests that there are

interrelated supporting and supported elements within both levels of culture (Dauber et al., 2012). The difficulty in understanding organizational culture lies in the abstract interrelations between variables (e.g., time, size, leadership, cultural identity) that are further impacted by variations within different societies (Dauber et al., 2012). In many cases, these cultural relationships boost organizational learning by integrating diversity; in other instances, culture can impede progress through conflicting values (Dauber et al., 2012; Hatch, 1993). Hofstede et al. (2010) identified six persuasive national cultural value dimensions, but also contested their utility to predict or change organizational culture. Conversely, Sagiv and Schwartz (2007), Dauber et al. (2012) argued that societies breed organizations and retain national cultural values as a result. Sagiv and Schwartz also examined the involvement of individual behavior in organizations and discovered that tasks unique to a person's value system were also believed to shape cultural values. Therefore, ACC group values and individual values can influence one another to some degree, which was a specific theme evaluated in this study.

The Link Between National Culture and Organizations

Decades of social science research show that national culture can play a significant role in organizational behavior (Dauber, Fink, & Yolles, 2012; Hofstede et al., 2010; Homburg & Pflesser, 2000; Schein, 1984, 1990, & 2010). Similarly, research also shows that organizational culture can affect what Schein (1984) referred to as "organizational excellence" (p. 3). Atkinson and Greaves (2014) further theorized the symbiotic relationship between national and organizational culture by demonstrating the deep-rooted nature of cultural norms. There is a great deal of evidence exposing the

benefits of cross-cultural exposure to decision-making, business, marketing, education, and organizational leadership. Still, the primary challenge surrounding culture is how best to operationalize the results.

Organizational culture is observed only through contextualized practices and demonstrates the way individuals understand their roles and duties within their organization (Sasaki &Yoshikawa (2014). Hofstede et al. (2010) distinguished national culture from organizational culture, which exists only to manage tasks and conditions that are "visible and conscious" (Hofstede, 2011, p. 1). Similarly, there is a growing demand for research correlating national and organizational culture, where national roots are grounded in strong values, rituals, language, and traditions within an overly homogenous society (e.g., Korea). In these examples, organizational culture as it pertains to cooperation and performance are thought to be highly associated with national culture values (Dahl, n.d.; Gächter et al., 2010; Hofstede, 2011; Naor et al., 2010; Nazarian et al, 2104; Nelson & Gopalan, 2003; Takeuchi, 2010).

Steel and Taras (2010) found statistically significant support for culturally specific moderating effects based on personal characteristics. Specifically, Steel and Taras found that age and education level were correlated to cultural values by country. Understanding the level (individual, group, nation) that constrains the evaluation of data is an essential element of Hofstede's theory, because it connects cultural characteristics, the environment, and varying individual qualities to cultural variance. Steel and Taras found that sex was strictly correlated with countries that had higher inequality. Additionally, this finding supported the notion that power distance and masculinity were

not only measurable but that mitigation methods affecting similar personal characteristics were possible.

National Culture Values and Organizational Influences

Wilkins and Ouchi (1983) provided insight into the depth and complexity of culture by explaining the importance of culture in understanding people and how they adjust to new cultural rhythms and ideas in the workplace. Cultural assimilation is difficult due to the interwoven patterns of language and values that create deep-seated layers of meaning that appear hidden from outsiders. Wilkins and Ouchi claimed that to improve efficiency within an organization, the group's culture must be learned, "slowly and carefully," with a strategic and intimate contact in mind (p. 469).

Nearly three decades ago, Wilkins and Ouchi (1983) showed that organizations that ascribe to a particular culture, with particular properties, would have improved efficiencies. More specifically, they argued that organizations are controlled by those cultural values that more persuasively dominate. It was then concluded that an organization's performance cannot be understood without a corresponding grasp of the cultural dimensions guiding it (Dauber et al., 2012; Schein, 2010). Isomorphism describes an anthropological exactness that puts national cultures in direct proportion with organizational cultures; meaning that with one also comes the other—they are mirror images of each other. According to Nelson and Gopalan (2003), organizational theory follows an isomorphic path. Isomorphism can be used to understand the alignment of national culture within an organization's environment, bounded by cultural attributes necessary for an organization to survive. New theories of modernization show a trend

toward a more non-isomorphic approach. For example, isomorphism expressed through exposure to Western culture (i.e., education, business, etc.) can result in reduced barriers to national cultural elements through the convergence of globalized markets and capitalism. Keeping in mind isomorphism as a guiding principle, researchers can better convey cultural variance between groups and look for ways to mitigate influences.

Wilkins and Ouchi (1983) claimed that when there are no alternatives to counter a dominant organizational culture, the system will flatten oppositional forces to stabilize itself, which is referred to as reciprocal opposition. Reciprocal opposition attaches itself to the most critical issues within an organization. The U.S. and South Korean workgroups within the ACC Headquarters are aligned under a single commander and are tasked with producing actionable defense strategies and operational plans. If not controlled or understood, according to reciprocal opposition theory, groups would seek to "purposely isolate themselves" to preserve core functionality, and it is precisely this form of hardening that precludes the U.S. and South Korea from efficiently collaborating (Hofstede, 2011; Wilkins & Ouchi, 1983, p. 1121). In the case of ACC, to be effective requires unity of effort centered on a single organizational leader. This study highlighted the need to promote engagement and intercultural experience to avoid unintentionally subdividing elements of national culture from organizational culture.

Cultural Arguments, Differences, and Disconnects

The focus of this study suggests that the strong and deeply rooted nature of national culture is shaped by a core set of national values that guide individual and group behaviors (Hofstede, 2001; Hofstede, 2011). Hofstede (2011) was careful to acknowledge

the variety of interpretations and explanations of culture ranging from ethnicity, work groups, and organizations, to nation states, politics, and sociology. According to Hofstede, "Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 1). The concept of collective programming is an essential element of this study by reinforcing the dominant nature of what Hofstede argued is deeply rooted in collective norms. This collective phenomenon also identifies the characteristics of individuals that explain the variation that distinguishes one society from another. To frame the problem, Dauber et al. (2012) proposed the configuration model, which described the changes in cultural phenomena, over time, as a product of a continuously changing environment. This framework supports Hofstede's value dimension theory and the need to investigate cultural differences as they continue to evolve.

Contradicting views among researchers and practitioners assume a near-linear relationship (proposed certainty) that the value dimensions will remain relatively constant over time; the argument is that cultures seldom change. This study accepts the notion that cultures can remain stable, and therefore, value dimensions can endure (Hofstede & Usunier, 1999). Alternatively, Soares et al. (2006) suggested that the usefulness of culture as a variable for understanding organizations is shallow and that the dimensions of cultural value are too dependent on the differences in social structure within each community. In search of a correction, Soares et al. explored indirect values, benchmarks, and inferences as an alternative approach to cultural values, and to better depict the role that culture plays within an organization. Soares et al. addressed Hofstede's assumption

that a single cultural dimension, or even a collection of dimensions, could not accurately encapsulate the complexity of a single national culture; thus, countering Hofstede's prediction that national culture can be measured.

Kroeber and Kluckholm (1952) and Hofstede (1984) emphasized that value theory defines cultural patterns, and in effect, these patterns highlight methods needed to depict reliable characteristics of culture such as universalism and orientation. Soares et al. (2006) challenged Hofstede's value theory, claiming that the six dimensions cannot capture the exhaustiveness needed to explain all cultures; the general argument is that each dimension of culture can be portrayed across many levels (i.e., locally, regionally, and nationally). Hofstede (2011) maintained his focus on observable attitudes and characteristics. Hofstede emphasized that the approach will indeed succumb to error because it is impossible to measure culture with any degree of certainty.

There is a great deal of research involving the collection and analysis of data across levels, and much debate about the utility of the data as can be applied to specific study areas (i.e., from country-level to the individual-level). The level at which data is collected directly informs its utility and validity from which inferential and statistical findings can be drawn (Grenness, 2012; Yoo et al., 2011). This study was commissioned to investigate the impact of national culture values; therefore, the data cannot be used to evaluate conditions below the national or country-level or be used to make assumptions about individuals (Hofstede et al., 2013). This dilemma is referred to as an ecological fallacy and points out that there are limitations to operationalizing culture broadly across an array of infinitely complex personal characteristics (Hofstede & Minkov, 2013).

Cultural variances between organizations can positively correlate with group conflict, but that national culture differences can also mitigate responses to decrease conflict among groups (Yoo et al., 2011). Hofstede et al. (2010) and Hofstede and Minkov (2013) discussed the tendency of national cultures to vary broadly, and that analysis must be managed within the context of a particular group from which the data was derived; that is, it is imprecise to apply results from one study to those of another—mixing and matching data samples is not recommended. Hofstede et al. made no claim that cross-cultural lessons should be applied below the intended level of data collection, which for this study was maintained at the country level.

Applying Hofstede's approach provides a lens through which researchers can observe how societies are different, and not how individuals within societies are different. Likewise, organizations empower managers to oversee activities involving individual or small groups. Grenness (2012) then argued that if researchers cannot apply Hofstede's cultural variance lessons to enable understanding of individual behaviors, then the tools are of limited utility as an instrument to *measure work-related values* (Dorfman & Howell, 1988). To resolve the dilemma affecting the utility of cultural data across levels, Yoo et al. (2011) proposed the *cultural value scale* to measure individual values as an alternative to Hofstede's (1991) country-level scale. In-line with Hofstede's (2011) theory, it is believed that differences between national cultures are statistically significantly correlated with the transfer of knowledge; that is, although deeply rooted, elements of culture can be altered. Yoo's et al. research demonstrated how understanding the various effects of culture could shape group differences.

Culture and Organizational Collaboration

Schein and Safi (2010) and Wu (2006) explained organizational culture as a set of constructs that manifest learned behavior over time as members grow and learn while adapting to a variety of internal and external environmental influences. Nes, Solberg, and Silkoset (2007) explored Schein's (2010) research measuring the displacement between trust and cooperative behaviors, which provided a critical link for understanding how cultural influences impact trust-building relationships. Schein (1984, 1990, 2010) believed that ignoring the influences of national culture increases organizational risk, and therefore, argued that—"practices that contradict prevailing cultural values are susceptible to employee rejection" (Kull & Narasimhan, 2010, p. 82).

Culture is best understood when presented from a practical viewpoint, where those involved understand the tangible benefits generated by group behavior. That is, organizations exist because of their inherent ability to give and receive something of value. This phenomenon defines an organization's most fundamental reason for existing by forming a series of transactions or exchanges that underpin relationships (Strauch, 2010. Nelson and Gapalan (2003) highlighted ethnicity, class, sex, and religion as important indicators used to promote divergence within organizational cultures. Regarding fairness, each party demands some level of equity, and it is this equity that drives transactions between individuals or groups; costs associated with transactions carry with it some form of cultural value. As a mechanism for increasing collaboration, organizations must share "orientations," which Wilkins and Ouchi (1983) described as creating a common ground with common goals (p. 471). Hall and Mildred (1990)

explained that there are high and low levels of culture that contribute directly to personal, group, and organizational communication, and by extension collaboration. Similarly, Gächter et al. (2010) found that balanced cultures support organizational effectiveness and that cultural background has a substantial influence on cooperation. Zilber (2012) stressed the value of understanding culture and performance, and the need to balance cultural change as a requirement for organizational success.

Advancing Public Policy and Social Change

By embracing and understanding the national culture, no matter the degrees of cultural variation, ACC members will be better prepared to shepherd and preserve South Korea's democratic future. The purpose of the Alliance is to deter aggression and to provide for a stable, social, and political environment (Armitage & Nye, 2012; Bajoria & Lee, 2011). For this reason, South Korea is an essential for helping to maintain regional peace. The Chinese tolerate North Korea to keep U.S. politics as far away as possible. Likewise, Japan enjoys stable and manageable relations with Korea as well. Keeping the peace in this part of the world has significant political, economic, and public policy implications (Armitage & Nye, 2012). How the U.S. and South Korean military collaborate and work together is essential for maintaining the armistice, promoting democracy, and deterring DPRK aggression.

The Alliance is 63 years old and has evolved into one that is widely based on mutual trust and understanding (SOFA, 2015). The necessary collaboration between the leading military and political leaders within South Korea is essential for sustaining peninsula security, regional prosperity, and global economic strength (SOFA, 2015).

South Korea is evolving socially and politically and has transformed itself in just three decades from a struggling war-ridden vulnerable nation to one of unquestionable modernity and success. The ability of the South Korean people to adapt, learn, and grow in such a short period is a direct result of U.S. interest, influence, and guidance (Sharp, 2013). The U.S.' attentive focus, interest, and support to Korea and the broader Asia-Pacific region is a testament to its interest in cultivating partnerships that are in tune with its national security strategy (Sharp, 2013). Positive social change is realized by maintaining an environment promoting peace and goodwill between America and their South Korean hosts. By reducing cultural barriers, the aim is also to reduce organizational resistance and inefficiency to illuminate the awareness and promote geopolitical relations. By bringing together South Korean and the U.S. military members as partners, new ideas, strategies, and actions will blossom from individual and group engagement and help maintain and recertify good governance and security policy in the region.

Alliance activities focused on important Asia-Pacific strategies to shape regional institutions and inspire partners to foster increased growth and prosperity, keep the peace, and "improve the daily lives of the people of the region" (The White House, 2009, p. 2). Another purpose of the Alliance is to establish an enduring peace on the peninsula based on the "principles of free democracy and a market economy" (The White House, 2009, p. 2). To enhance security in the Asia-Pacific region, U.S. and South Korea governments take part in practical and cooperative regional efforts to build confidence and promote security (Bajoria, & Lee 2011).

Summary

In this study, I explored an apparent gap in sociological and anthropological research by analyzing the nature of the relationship between the U.S. and South Korea ACC military officers. A study of cultural relationships within the Alliance can help to identify administrative resistance, recognize inefficient processes, improve warfighting effectiveness, and strengthen the current state of stability on the Korean peninsula. As the DOD recapitalizes its post-Iraq and Afghanistan military infrastructure and shifts its focus toward Pacific theater operations, the United States must continue to invest in its support for South Korea. To maintain favor within political-military circles and also retain its status as a regional hegemon, the United States must embrace cross-cultural learning (Park, 2011; Sharp, 2013).

Organizational culture and national culture can influence group decisions and efficiency. Culture can inform, and even alter how knowledge is transferred and understood as it moves within and between groups. Wilkins and Ouchi (1983) argued that when cultural differences arise, they affect the level of parity between groups leading to an erosion of trust, which tends to slow group decision-making. More importantly, this breakdown in trust creates barriers between groups, further dividing organizations and reducing performance. Therefore, a key interest of national culture theorists (and the focus of this study) is to understand the degree of value divergence between groups and how these differences affect decision making (Podrug et al., 2006; Steel & Taras, 2010).

The differences in national cultural values between ACC staff members are not well known. Hofstede's theory allows for the application of quantitative data values

across cultures to compare and contrast group relationships. Hofstede's theory provides insight into how internal work processes might be improved based on the how variables are determined to effect culture value score differences. There remains a lack of research and understanding for how cultural homogeneity at the national level affects organizational level collaboration (Soares et al., 2006).

Chapter 3: Research Method

Introduction

In Chapter 3, I present a quantitative quasi-experimental research design. In this

chapter, I addressed the research questions, data collection, and analysis procedures. I

also included a discussion on the protection of human rights, participant consent, and

ethical compliance measures. The research methodology section of this chapter includes a

robust discussion of the survey instrument used, the collection procedures, and a

description of the sampling frame. The purpose of this study was to examine influences

to the U.S. and South Korean national cultural values within the ACC headquarters.

Exercising Hofstede's et al. (2013) national culture value theory, the aim of this research

was to assess how military experience, language skill, cultural proficiency, and related

personal demographics might predict or correlate with Hofstede's six cultural value

dimensions explained in Chapter 2. As discussed in Chapters 1 and 2, the difficulty in

conducting cultural research lies in identifying measurable outcomes; that is, how can

researchers operationalize individual elements of culture? To answer this question,

Hofstede offers a quantitative method to compare cultural values, which provides a

means from which to measure and analyze seemingly unquantifiable phenomena (Dauber

et al., 2012; Hofstede, 2011; Kirkman et al., 2006; Podrug et al., 2006).

Research Design

This study used a quasi-experimental research design and convenience sampling

methodology to quantify and test cultural variable relationships. The data set was

obtained through the Hofstede and Minkov (2013) VSM, which provided a reliable data

collection instrument for examining the statistical relationships between value

dimensions. The data set consisted of 178 combined U.S. and South Korean military

officers assigned to the ACC. Limitation in available survey participants challenged

external validity because of the limited sample size and self-imposed constraint requiring

that the survey was distributed on a noninterference basis. This process reduced the

overall timeliness and efficiency of receiving responses. Using correlation analysis and

ANOVA, hypothesis testing was conducted by measuring the U.S. and South Korean

ACC survey responses. I further tested each of the six national culture value dependent

variables to determine statistical significance across a range of culturally informed

variables (i.e., sex, experience living abroad, etc.). The Statistical Package for the Social

Sciences (SPSS) v21 was used for descriptive and inferential analysis.

The research design employed both descriptive and inferential statistics to test

national cultural value differences. Hofstede et al. (2010) national culture framework

provided a robust, yet simple method for generalizing and operationalizing culture.

Hofstede's approach also helped to develop and test each hypothesis and to assist in the

identification of cross-cultural variances (i.e., testing correlation and prediction).

Descriptive data provided the initial analysis for all variables, which included the *M*

distribution, and *SD*. The inferential analysis included a two-tailed test with an alpha (α)

level of .05 using bivariate correlation to answer the research questions. Figure 1 shows

the relationship/s between the IVs and the U.S. and South Korea value dimension DVs.
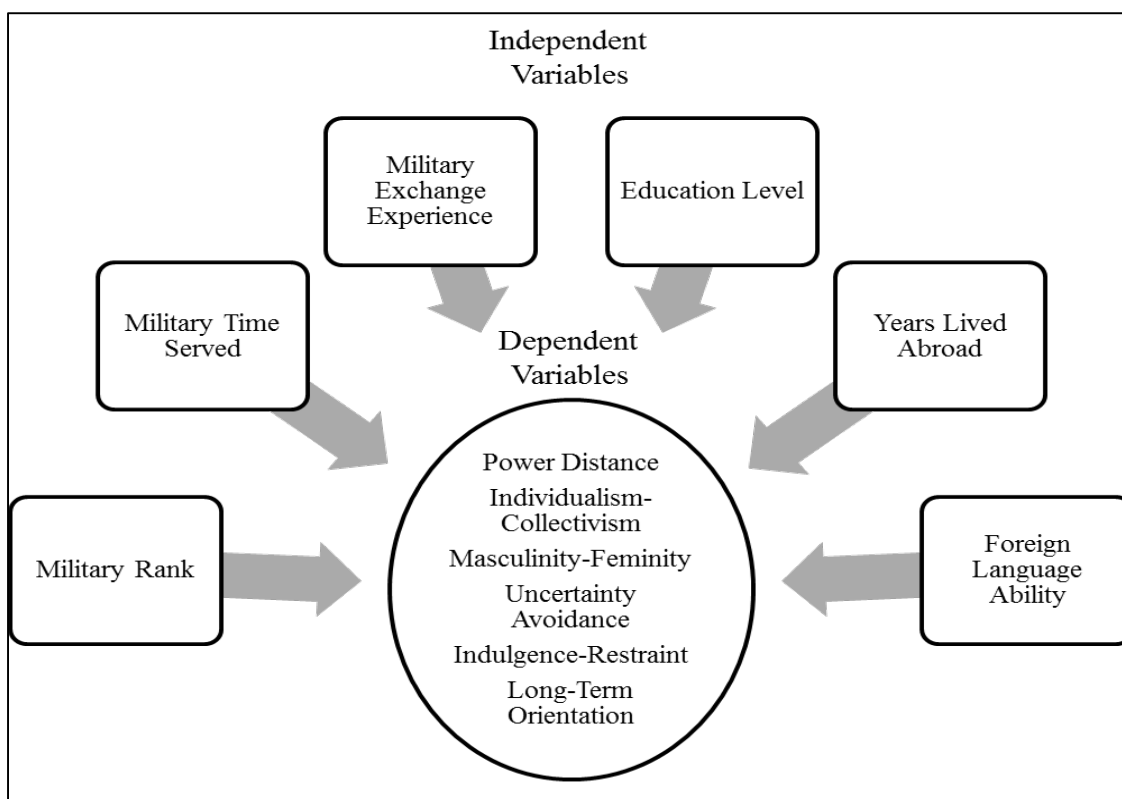
Figure 1. Independent and dependent variable relationships.

Ethical Considerations

No previous research of this kind had ever been done within the ACC environment. Working within a multicultural setting and engaging human subjects required a careful ethical approach. A Walden University Institutional Review Board (IRB) application was submitted and approved (IRB approval number 12-23-15-0397300). Additionally, a research request was submitted to the South Korean Ministry of National Defense and the U.S. Air Force Research Oversight and Compliance Division. This study drew attention to areas where culture divergence was the greatest while providing a vector to mitigate predictor variables aimed at improving collaboration. Both the U.S. and South Korea ACC leadership and the Korea Ministry of National

Defense (MND) supported this study and assisted in the distribution of the survey

materials.

During the data collection phase, each participant was advised about the nature of

the study and how their participation would be used in the data collection process. With

regards to survey development and distribution, a certified headquarters' translator

assisted in the review and coordination of the study to address fundamental translation

questions. When research questions arose beyond simple translation, either the research

assistant or I arbitrated to ensure that all data remained anonymous. A Walden IRB,

Korean Air Force, and U.S. Air Force approved consent statement of agreement was

included in both the online and the hard copy surveys emphasizing anonymity and the

voluntary nature of the study.

Protection of Human Subjects and Informed Consent

Ensuring participant consent and anonymity were a principle concern for this

study, which was necessary for securing South Korean participation and the approval of

the U.S. Air Force Human Subjects Research Officer. Informed consent in this study was

designed to ensure that participants understood how the results would be used and agreed

to the placement and use of the data in the findings—this information was detailed within

the survey instructions. Although the risk to human subjects was minimal, this study

appointed a research assistant that was able to assist in the administration of the survey

and ensure participant safety.

In compliance with Department of Defense Instruction (DODI) 321.02,

"Protection of Human Subjects and Adherence to Ethical Standards in Air Force

Supported Research," a research assistant was appointed and facilitated the distribution

and collection of the surveys (p. 41). This process was followed to ensure the voluntary

involvement and recruitment of the Air Force military members was clearly and

adequately stressed. Acting as the liaison, the research assistant performed oversight

functions to ensure compliance with anonymity, privacy, and security of the data. The

study provided that the participants were aware of the study outcomes, which helped to

safeguard the highest level of rigor and improve overall validity.

Methodology

Convenience sampling was used in this study to ensure maximum participation

and generalizability. At the request of ACC leadership, study completion was conducted

on a non-interference basis. Participants were not expected to complete the survey during

duty hours and were permitted to e-mail the survey link to their personal e-mail accounts,

or in the case of the South Korean survey, they could take the survey home if they

preferred. The convenience sampling approach required no Component leadership

participation, reduced Component workload (noninterference), and permitted maximum

exposure to all Component members identified within the prescribed sampling frame.

This study used primary data collected from a pool of approximately 244 potential

multinational Air Force officers assigned to the ACC Headquarters located at Osan Air

Base, Republic of South Korea ($N = 178$). Additionally, to manage translation

requirements and mitigate language differences and other cultural barriers, the adjusted

VSM survey instrument was developed in both English and Korean languages and was

administered by an appointed research assistant. The purpose of using a trained research

assistant was to improve the confidence between parties and provide an increased sense of awareness and interest in the overall research effort. Having a research assistant who could speak fluent Korean and English was critical for gaining trust and ensuring complete transparency. The research assistant assisted in the administration and collection of the surveys and acted on my behalf at the research site. The research assistant ensured that there were no breaches of trust (Appendix F).

Geographic Location and Sample Population

This study took place at the ACC Headquarters, located at Osan Air Base, Republic of Korea (ROK). The base supports the 51st Fighter Wing, the 7th Air Force Headquarters, and the Korean Air Force Operations Command. Osan Air Base supports over 5,000 U.S. military and civilian personnel, plus an additional 1,200 Korean Air Force members. The Air Force Operations Command and the 7th Air Force Headquarters are considered tenant units of the base and operate at an echelon above the host wing. The 7th Air Force staff consisted of 204 permanently assigned members, of which 92 officers were considered eligible to complete the survey. The Korean Air Force headquarters consisted of 350 total assigned members, of which 152 officers were eligible to participate in the study.

Power Analysis and Sample Size

To ensure the largest possible sample was capable of yielding statistically significant results a power analysis was conducted. The Hofstede and Minkov (2013) VSM instruction manual did not offer a power analysis or effects size discussions or any related examples. The VSM procedures only stress the importance of controlling sample

size to ensure validity and to provide reliable data. The VSM instructions required that:

"The samples per country should be of sufficient size . . . an ideal size for a homogeneous

sample is 50 respondents [per country-level] . . . Sample sizes smaller than 20 should not

be used" (Hofstede & Minkov, 2013, p. 2). Rationales for selecting homogenous samples

are also not explained in the VSM either but are do describe the importance of using only

matched pairs (Hofsede & Minkov, 2013). Power establishes the tolerance for false

negatives, which in this study equated to one in five, or 20% of the time the study

forecast would fail to detect a real difference (Prashant & Bhalerao, 2010). No power

analysis studies denoting Hofstede's use of the industry standard for power, 80% (1 −β)

was discovered in the research literature.

 A significance interval (alpha) of p = .05 was paired with a 95% confidence level.

This p-value and confidence level was used in combination to increase the probability

that the sample arrived at the correct conclusion and avoided Type I errors. Because the

confidence interval is commonly chosen in proportion to the selected sample size, an

alpha level of .05 ensured the data would represent closely the U.S. and South Korean

ACC populations. The p-value provided the reference for determining statistical

significance. When the analysis showed that the p = < .05, then the null hypothesis was

rejected and the alternative hypothesis accepted (Frankfort-Nachmias & Nachmias, 2008;

Laerd, 2015). This study used a standard deviation (sigma Σ) of 50%, or 0.5, which

assumed worst case that 50% of the participant answers would contain an error—

otherwise known as the α error of probability. Confidence interval and percentage of

error are interrelated and were used as a method for controlling reliability.

The effect size measured the strength of the effect between samples. Cohen (1992) proposed effects sizes for correlation and variance analysis ranging from 0.20 (small) to 0.80 (large) as a method for benchmarking national culture and correlation strength. Tara et al. (2010) offered effects size ranging from 0.18 at the individual level to 0.35 at the group level, based on a multilevel meta-analysis of related cultural research. Hofstede's cultural value dimension theory has been applied successfully for over 30 years and across 598 studies receiving over 200,000 survey responses from around the world. Based on Cohen's (2003) and Taras et al. historical research assessing value variance, and due to the overall small staff officer population, this study used an effects size of 0.22.

Sample size (SS) requirement were determined based on the following:

SS = Z2 * (p) * (1-p) / c2

Where:

$Z = Z$ value (1.96 for 95% confidence level; two tailed)

$p = 0.5$ (choice, expressed as decimal – percentage of error)

$c = .05$ (confidence interval, expressed as decimal)

Assuming $\alpha = .05$, the power of the test $(1 - \beta) = 0.95$ and the effect size of $\eta^2 = 0.22$, G-Power and Creative Search Systems survey software was used to estimate the SS needed for ANOVA testing and to test for statistical significance based on a varying number of independent variables—see Table 1 for results (Faul, Erdfelder, Lang & Buchner, 2007).

Table 1

Power Analysis for ANOVA α = .05, (1 - β) = 0.8, η2 = 0.22

Number of levels	Sample size
n = 2	60
n = 3	75
n = 4	88

Data Collection Procedures

Each headquarters personnel office provided a total count of all officers assigned to the commander along with either a work e-mail address (U.S. members) or a physical work mailbox number (Korean members). This information was used to distribute two identical surveys; one survey was drafted in English and the other in Korean (Hangul). The research assistant (ombudsman) distributed each survey. The U.S. survey was distributed through a Microsoft Outlook e-mail link via the online survey web hosting support tool, Survey Monkey. The Korean survey was distributed via hard copy to each staff member's physical mailbox located at the headquarters.

Constraints

Due to the language differences and the geographic distance between the particpants, and myself this study required administrative support from the 7th Air Force Headquarters and the ROK Air Force Operations Command leadership. The study also required the approval of the South Korean MND (Appendix A and B). In the past, access restrictions and lapses in trust relationships between the U.S. and South Korean staff officers hampered attempts to conduct similar cultural research (ACCR 23-1, 2012).

During this study, no impediments or restrictions were experienced. Survey translation and administrative accuracy was a key element of this study and required detailed attention to ensure the survey instructions were readily followed and that any participant questions or concerns were addressed quickly. Professional translators and interpreters assigned to the ACC Plans and Coordination Directorate were necessary to facilitate on-call translation support. Post-survey translation support was not required. A U.S. Air Force Survey control number was required for the study to be considered and accepted by the Air Force. Additionally, separate approval by the U.S. Air Force Human Subjects Research Oversight and Compliance Office was needed. In both cases, the Air Force required a Walden University IRB approved a proposal. The coordination process post-IRB proposal approval took approximately nine months.

United States Survey Format, Instructions, and Administration

Completion instructions for all U.S. online surveys were detailed on the first page of the survey explaining the purpose and scope of the study along with highlights explaining participant anonymity and how their responses will be used. As approved by the Walden University IRB, the Chief of Staff distributed the survey to all U.S. assigned staff members via a SurveyMonkey e-mail link. When the surveys were completed, U.S. participants were prompted to submit their responses electronically via an on-line survey link. The results of the completed surveys were tabulated anonymously and forwarded to the researcher for analysis. The survey window was opened from March 5, 2016, to March 26, 2016. After the survey window had closed, the research assistant notified the researcher that all surveys were completed, and the data were available for analysis.

Korean Survey Format, Instructions, and Administration

The Korean survey instructions and questions contained the same format and style as the United States English versions, except they were translated into Hangul. Due to a technical limitation of the Korean e-mail system, the Korean surveys could not be distributed electronically over their intranet using their military e-mail accounts. The headquarters' commander agreed to allow hardcopy surveys to be distributed by the research assistance during work hours. Participant selection and distribution followed standard convenience sampling procedures. The research assistant ensured that the surveys were available to all members who wished to participate. Korean participants were instructed to return their completed surveys to the research assistant, who would act as a neutral party for the purpose of distributing and collecting the surveys on my behalf. No names or identifying information were permitted on the paper surveys. After completion, the research assistant mailed the paper surveys to the researcher via the U.S. Postal Service.

Military Recruitment

Per DODI 3216.02, Air Force "superiors are prohibited from influencing the decisions of their subordinates" (p. 41). Per the collaboration agreement, all officers assigned to the headquarters were permitted to participate in this study. The Walden University IRB and Air Force Human Subjects Research Oversight and Compliance Office mandated the use of an electronic survey format for U.S. officers. The purpose of this approach was to ensure that there was no undue supervisor influence or discrimination. Korean Air Force members were offered a hardcopy survey from the

research assistant through their base mail system. The paper surveys were placed in the mailbox for each Korean staff officer participant. The participants could either discard the survey at their leisure at that time or take it with them to complete at their leisure. An empty manila envelope was attached to all surveys with instructions to return the surveys to the research assistant when complete. If any member, United States or Korean, chose not to participate, they were permitted to disregard the paper survey or delete the survey e-mail link.

Participant Selection

U.S. participants were selected from staff officers assigned to the 7th Air Force Headquarters. Similarly, Korean participants were selected from officers assigned to the Air Force Operations Command Headquarters. Both headquarters were colocated at Osan Air Base, Republic South Korea, and together are formally known as United States-Korea ACC (ACCR 23-1, 2015). The total assigned United States-South Korea staff officer population consisted of 207 officers in the military grades O-1 through O-9. Based on G-Power statistical software and cross-referencing the SS formula shown earlier in Chapter 3, 92 potential study participants received the U.S. survey e-mail link. To meet a 95% confidence level, the study required 73 U.S. Air Force respondents. 85 U.S. responses were tallied and all were included in the research. Likewise, considering the total Korean staff officer population of 152, 92 respondents were needed to ensure sufficient statistical power, and 93 surveys were returned, of which, all 93 were included in this research study (Qualtronics, 2015).

Survey candidates assigned to the ACC staff ranged in age from 23 to 60 years old, and included the military ranks between O-1 to O-9 (Second Lieutenant through Lieutenant General). The sampling frame was selected based on Hofstede's survey instructions requiring matched pairs. This sampling strategy allowed all U.S. and South Korean headquarters' assigned members to participation. Convenience sampling was selected based on the shared common professional military career path and other military and professional demographic similarities between the U.S. and Korean officers (7th Air Force, 2015). This study did not include enlisted or civilian personnel assigned to the headquarters because those individuals do not follow the same career path, have similar training opportunities, or normally posses the shared military experiences needed to meet the matched-pair requisite (ACCR 23-1, 2015; Hofstede et al., 2010).

The Survey Instrument

The researcher surveyed a selection of ACC staff members to determine differences in national cultural values by measuring the six dimensions per Hofstede's value variance theory. The extent that variances exist between groups assisted in determining the degree to which the U.S. and Korean staff members are impacted by national culture. Hofstede and Minkov (2013) explained that the dimensions as depicted in the VSM are country-level specific. As described in detail in Chapter 2, country-level relationships do vary from individual-level relationships, which can be observed through individual responses (Klein, Dansereau, & Hall, 2004). The Hofstede and Minkov (2013) VSM was used as a framework for evaluating the connection between the U.S. and Korean ACC staff member national cultures. The VSM was derived from various

components of Hofstede's (1980) famed research with IBM analyzing organizational culture in over 40 countries (Hofstede et al., 2010; Hofstede & Bond, 1988; Minkov, 2007).

Survey accuracy. According to Hofstede and Minkov (2013), "individual-level correlations produce dimensions of personality; country-level correlations produce dimensions of national culture" (p. 3). As defined in the Hofstede and Minkov VSM instructions, to be reliable only matched-pair data should be collected. This study cannot evaluate ACC staff member values at the individual level. The VSM was uniquely designed to show how national values might differ from one society, group, or organization to another. This survey sampling strategy was selected due to its robust 30-year history, which has provided a successful framework for scholars and practitioners to understand the impact of cultural variation within groups (Tsui et al., 2007; Yoo et al., 2011). According to Hofstede VSM Instruction Manual, a series of content-specific questions were selected based on the nationality of survey respondents. Hofstede explained that not all respondents of a single nationality would be expected to give the same answer; however, it would be more likely that logical differences between mean scores would result from paired-samples drawn by a single national analysis of variance. Therefore, comparisons of countries should be based on samples of respondents who are matched on all criteria other than nationality that could systematically affect the answers.

Variables

Hofstede's dimensions-based analysis and methodology have been used successfully for over 30 years. Hofstede is most famous for his 1978 IBM organizational

culture research. A host of social science topics has been developed as a consequence of

Hofstede's prominent research addressing conflict management, decision making,

leadership, social networks, motivation, business, and marketing (Kirkman, et al., 2006;

Naor, 2012; Steel & Taras, 2010; Tsui, 2007).

Dependent Variable Definitions

- *PD* – Degree that less powerful groups accept and expect power to be

  distributed and exercised unequally

- *IDV* – Degree of prioritization of individual needs over those of the group

  – Explains the preference for individual actions vice favoring group

  desires

- *IVR* – Degree that groups allow for self-gratification at the expense of

  group needs

- *MAS* – Degree of differentiation between sex roles

- *UA* – Degree that groups feel threatened by ambiguity

- *LTO* – Degree of indifference that groups place on thrift, sustainment, and

  long-term relationships

Independent Variables

- Education level

- Years served in the military

- Military rank

- Years lived abroad

- Foreign language proficiency

- Foreign military exchange program participation

In order to quantify and measure the national value factors, the participants were asked to select survey responses based on a series of questions that were further group and assessed according to Hofstede's weighted scale. A survey response of "1" indicated that the condition or circumstance was of the "utmost importance," while a selection of "5" indicated "very little or no importance" (Hofstede & Minkov, 2013). Each question addressed key elements of national culture behaviors as prescribed by Hofstede's cultural value theory (Hofstede & Minkov, 2013). Data collection was administered through a 39-question survey designed by Hofstede and Minkov (2013). The first 29 questions of the survey were derived directly from the Hofstede and Minkov (2013) VSM and were used to calculate national culture value scores for each country. Questions 30-39 were used to collect demographic data.

Research sampling attributes were:

- Sample Population: U.S. and Korean military members

- Sample Frame: ACC headquarters

- Sample Design: Probability convenient sampling

- Sample: Staff members in the grade/rank O1 – O9 (2nd Lieutenant to Colonel)

- Unit of Analysis: National culture values (scale from 0 – 100)

- Statistics: Difference in cultural value variance and demographic

  correlation to value difference Data Analysis

Validating the Survey

The VSM was derived from original data collected by Hofstede from 1967 to 1973 while working on an organizational culture research study for IBM. Over 3 decades of social science scholarship continues to utilize Hofstede's theoretical framework to understand culture through values and matched-pair analysis. Lim, S. Kim, and J. Lim (2013) analyzed Hofstede's dimensions to determine Korean collectivism and predictions of American Individualism. Lim et al. (2013) found that expanding Hofstede's et al. (2010) dimensional analysis to include subcategories of individualism and collectivism (holism, group collectivism, relational collectivism, and personalism) supported reliability scores ranging from 0.65 to 0.78. Hypothesis testing using an independent-samples *t* test and ANOVA across four of the six dimensions also noted statistically significant differences (Taras & Steel, 2009). The Lim et al. study proposed that individualism and collectivism among Korean and American college students were statistically significant and that culture dimensions could be used as a valid measurement and operational construct.

Measuring values through survey tools and questionnaires, and using statistical processes, provides opportunities for understanding the U.S. and South Korean cultural variances. Cultural differences can only be explained through a quantifiable medium, which allows for broader and more extensive cross-national comparisons (Hofstede et al., 2010; Kirkman et al., 2006; Tsui et al., 2007; Yoo et al., 2011). Hofstede's development

of the VSM offered researchers and practitioners a method for operationalizing culture. Applying these constructs at the national level has become a popular method for understanding how core values underpin mental programs. Through cross-cultural difference analysis, Hofstede's quantitative examination offered a way to apply cross-national data. The VSM is a tool designed to help researchers "distinguish aspects of a national culture that can be measured relative to other national cultures" (Hofstede, 2006, p. 885). The Hofstede and Minkov (2013) VSM is copyrighted, however, the authors permit academic researchers to use the survey freely; no permission is required (refer to page 10 of the VSM Instruction Manual)..

Using the VSM in research. The Hofstede and Minkov (2013) VSM Instruction Manual provides the preferred methodology for calculating indexed scores for each of the six dimensions. Value scores are representative of the already established components of national cultures. The survey questions were scored on a five-point scale (1-2-3-4-5). Hofstede and Minkov explained that each survey question was selected based on its ability to account for the relationship between matched country samples. This study uses Hofstede and Minkov's original 29 items; no changes or alterations were made. Each dimension applies a mean country score based on four related questions that vary together. Hofstede and Minkov and Hofstede et al. (2010) confirmed that assessing correlation properties is an accepted, viable, and credible test to examine and compare culture differences. Survey questions were aligned with each value dimensions and had been screened and assessed to be statistically reliable. Together, the survey questions from six clusters addressing each one of the six dimensions (Hofstede & Minkov, 2013).

Reliability

Cultural levels are an important aspect of reliability and directly affect construct validity. The VSM is designed to test cultural variances and cannot be used as a psychological test to compare within-country differences. Hofstede and Minkov (2013) warned that the VSM should only be used to describe the differences of one society from another and not based on the cultures that are conceived artificially (Dauber et al., 2012; Grenness, 2012; Hofstede & Minkov, 2013; Prasongsukarn, 2009). This study applied Hofstede's historical reliability measurements using Cronbach's alpha, based on research spanning over 40 countries, four of the six value dimensions have published reliability values according to (Hofstede & Minkov, 2013); a result of > .70 was sufficiently reliable. Historical post-test reliability is located in Table 2.

Ting and Ying (2013) evaluated work-related cultural values between Malaysians and Koreans in a multi-business setting, which indicated a reliability score of .60 confirming internal scale consistency across the following value dimensions: PD, UA, MAS, and IDV (Hofstede, (1984, 2001). Yoo et al. (2011) utilized Hofstede's (1980, 2001, & 2011) and Hofstede and Minkov's (2013) conceptual approach to understand the validity of national level dimensions resulting in a similar reliability outcome.

Taras et al. (2010) summarized correlation outcomes between value scores and workplace behaviors. Merkin (2009) evaluated Korean and American communication based on Hofstede's (2001) framework. The study analyzed the impact of national culture as they related to aggressiveness and apprehensiveness (Merkin, 2009). Internal validity and reliability were above average, between 0.79 to 0.94 (Merkin, 2009). Naor et al.

(2010) assessed cultural norms as they pertained to international marketing trends. Naor et al. (2010) successfully used a multilevel analysis spanning eight culture dimensions to understand marketing performance in Germany, the United States, Finland, Japan, South Korea, and Sweden.

A reliability test like Cronbach's *alpha* is normally appropriate, but cannot be applied using individual scores as was the case in this study. According to Hofstede and Minkov (2013), only country-level mean scores are permitted. Hofstede and Minkov explained that reliability scores require data from at least ten countries. Hofstede and Minkov stated that "for comparisons across fewer countries, the reliability of the VSM at the country-level has to be taken for granted; it can indirectly be shown through the validity of the scores in predicting dependent variables" (p. 9). As discussed in Chapter 2, country-level correlation differs from individual-level correlations. Specifically, levels of measurement should be controlled to ensure country-level dimensions do not correlate across individuals. Because the survey questions originated from an established instrument, I was unable to alter the questions or measure reliability separately.

Table 2

Cronbach's α – Published Country-level Reliability Measurement

Cultural Dimension (DV)	α
Power Distance Index	0.842
Individualism Index	0.770
Masculinity Index	0.760
Uncertainty Avoidance Index	0.715

Data Management and Bias

In order to limit researcher bias and improve study accuracy and efficiency, a research assistant (ombudsman) located at the ACC Headquarters was selected to facilitate research activities and assist with the data collection process. Both the South Korean and U.S. ACC leadership agreed to support the study and provided signed letters of collaboration. There were no host-nation or leadership concerns with the survey, the study approach, the design, or the methodology. One of the most important aspects of this study was to ensure that headquarters leadership was aware of the process once data collection began. Ensuring the highest level of trust, confidence, and transparency was realized by confirming that the translation was accurate and free of errors, leadership was kept abreast of data collection progress, and that questions and concerns were proactively resolved.

Data Protection and Storage

Data collection took place through two separate lines of effort. As discussed, the U.S. surveys were administered electronically via online web hosting software and

formatted to capture data anonymously, merging results automatically for further

analysis. Similarly, data collected from the Korean headquarters was collected via

hardcopy paper surveys and manually entered into SPSS v21 software. In both cases, the

data, excel spread sheets, and related graphs were password protected and stored on a

write-protected hard drive, which is also backed using an encrypted cloud storage

account. Korean paper surveys were stored in a combination locked safe. The data, paper

surveys, and all associated analysis will be retained for 5 years from the time this

research study is completed and formally accepted by Walden University. Only verifiable

Walden University faculty and myself will retain access to the data and source material.

Both electronic and hard copy records will be destroyed at the expiration of the

mandatory 5 year period.

Value Score Calculation and Data Handling

Value dimension score calculations were derived from the survey responses. The

VSM permits the comparison of values indexed from 1 to 100 points; however, is it

normal for group scores to fall well outside of this range. Scores that do not fall between

1 and 100 can adjusted by simply adding or subtracting as needed using the C variable

below ("C" = constant) (Hofstede & Minkov, 2013).

PD = 35(m07 – m02) + 25(m20 – m23) + C(pd)

IDV = 35(m04 – m01) + 35(m09 – m06) + C(ic)

MAS = 35(m05 – m03) + 35(m08 – m10) + C(mf)

UA = 40(m18 – m15) + 25(m21 – m24) + C(ua)

LTO = 40(m13 – m14) + 25(m19 – m22) + C(is)

$$IVR = 35(m12 - m11) + 40(m17 - m16) + C(ir)$$

Data Analysis

The data analysis supported a quasi-experimental quantitative research design that employed statistical tests to enable inferential examination and discussion themes. Questions concerning ACC staff officer cultural dispositions and behaviors along with basic demographic data were collected via survey and analyzed using SPSS v21. Not all national value dimensions indicated in the Hofstede and Minkov (2013) survey can explain the totality of cultural differences within any particular country.

Screening and Data Preparation

The central research question looked at the statistical significance between participant cultural experiences, foreign language ability, and military service and their impact on national value scores. To address the eight specific research questions, bivariate analysis was used to test mean correlation, One-Way Analysis of Variance, and *t* tests were used to examine differences between groups. Refer to Table 3 for data analysis requirements and evaluation strategy.

Table 3

Summary of Bivariate Analysis

Dependent Variable(s)	Coding	Analysis
PD (ratio)	National Value	
MAS (ratio)	Scores	
UA (ratio)	(+ / -)	
IVR (ratio)		
LTO (ratio)		
IDV (ratio)		
Independent Variable(s)		
Education Level (ratio)	Years	Pearson's Correlation
Years Served in the Military (ratio)	Years	Pearson's Correlation
Military Rank (dichotomous)	1 = Company Grade 2 = Field Grade	Spearman's Correlation Independent *t* test
Years Lived Abroad (ordinal)	1 = None 2 = 1 - 5 Years 3 = 6 - 10 Years	Spearman's Correlation One-Way ANOVA
Military Exchange Program Experience (dichotomous)	1 = None 2 = Yes	Spearman's Correlation Independent *t* test
Foreign Language Proficiency (ordinal)	1 = None 2 = Moderate 3 = Fluent	Spearman's Correlation One-Way ANOVA

Threats to Validity

Internal Validity

Internal validity of the study was limited due to the nonexperimental nature of the research. Alternative explanations could apply to this cross-sectional approach further leading to spurious or confounding errors. For example, those with more cross-cultural experience or higher levels of language fluency may also be better educated and for this reason it may be difficult to assess these factors separately. Another potential concern is the general nature of the survey format that relied on self-reported assessments. Due to the high number of independent variables in this study, obtaining the necessary participant responses helped provide the greatest degree of generalizability, thus reducing validity errors. Maturation and experimental mortality were not factors in this study (Minkov, 2012).

To strengthen construct validity, the research approach incorporated multigroup sampling. To help establish validity items within the survey were measured by Hofstede to ensure that they were reliable, and that the scale was consistent—otherwise known as average inter-item correlation. In this instance, construct validity referred to the level of quality of the criterion used in the study and how it accurately measured cultural values.

External Validity

External validity errors were reduced due to the limited sampling frame used. To ensure external validity, convenience samples ensured the widest statistical generalization was obtained. This approach provided the basis for engaging participants within the two

organizations and helps to maximize generalizability and transferability (O'Sullivan et al., 2008; Trochim, 2006).

Measuring how accurately the survey represented the population added to the overall confidence level of the data, increased reliability and validity, and provided a solid foundation from which to inferentially inform the role of culture within ACC organizations. Matched-pair sampling also supported strong external validity because it defined results based strictly on a case-by-case comparison between nations. Although the data came only from ACC organization, the number of available participants between the U.S. and South Korean headquarters provided for a robust participant sample, which was important for ensuring research reliability. The VSM instruction manual required that the surveys only be distributed based on matched samples. This requirements were attained by keeping the sampling frame refined to only ACC staff officers. Staff officers were assigned to the headquarters because of there similar military training, education level, and experiences.

Descriptive and Exploratory Analysis

I used descriptive and correlation analytical data approaches. Descriptive indicators included frequency distribution, mean, standard deviation, and range distribution for all variables. Descriptive statistics were key for understanding how population demographics influenced the research questions. An inferential analysis was performed using two-tailed tests and an alpha (α) level of .05.

The data set was screened and reviewed for missing data and outliers removed to meet assumptions of linearity. Incomplete or partial responses were removed from the

study. Pearson and Spearman's analysis was used to determine the strength of association between factor levels and cultural dimension scores for both the U.S. and Korean staff members. Separately, a one-way ANOVA were performed between the independent variables and each of the dependent variables to understand group differences. For all statistically significant results, a Tukey Post-Hoc test was performed.

Correlation

Statistically testing cultural values across the six national culture dimensions was used to understand the association of demographic military predictor variables and their significance. The Pearson and Spearman correlation coefficient, r and r_s, was used to draw a line of best fit between the variables to test both direction and relationship strength. Refer to Table 4 for relationships details. When measuring linear association, correlation analysis does not define the slope of the line. Hence, unit increases cannot be measured precisely by r; the test can only show that the association was either positive or negative. The r-value can range from from +1 to -1. When $r = 0$ there was no association between variables, while a value greater than zero indicated positive association (Laerd, 2015).

Correlation analysis was used to test awareness between variables in the same way that regression methods examined the best predicator variables. Scatter plots were used to observe how the IVs were aligned with the DVs and their relationship to national value scores. Correlation coefficients were useful in this study because they were unaffected by scale differences. Additionally, this study leverages Hofstede's (2001) use

of Cronbach's alpha to test reliability for each of the sample survey questions, which

Hofstede and Minkov (2103) argued is the most appropriate measurement to determine

internal consistency.

Bivariate models were used to measure the strength of correlation based on the

following:

- r = the Spearman's Coefficient

- r^2 = the coefficient of determination

- The slope of the regression line

- The Y intercept of the regression line

- The standard error

- The value of t associated with the calculated value of r / two-tailed

- A 0.95 confidence interval defined the slope of the regression

Table 4

Correlation and Linear Relationships

-1	*All points fall in-line with a negative slope*
0	*No linear relationship (poor association/correlation)*
+1	*All points fall in-line with a positive slope*

Summary

In Chapter 3, I provided an overview of the research methods, which included the

research design, sampling frame, survey, analysis procedures, ethical and validity

controls, and a simple plan to enable participant consent. In Chapter 4, I review the

results of the data and provides analysis to address each research question. In Chapter 4, I also review the data analysis between variables and test the significance of each predictor variable to better understand their influence on national culture values.

Chapter 4: Study Results

Introduction

In Chapter 4, I report the results of the survey and subsequent analyses addressing each of the eight research questions. U.S. and South Korea ACC staff officer demographic profiles are examined, as well as related descriptive statistics pertinent to the study variables. I also describe inferential analysis and assumptions concerning the research questions and hypothesis testing using SPSS v21 results. Chapter 4 concludes with a brief summary of the findings and answers to the research questions.

The purpose of this quasi-experimental quantitative research was to understand the factors that influenced the U.S. and South Korean national culture value scores. The central question to this study was: How does national cultural values explain U.S. and South Korea ACC staff member differences, and can those differences be influenced? The following research questions and hypotheses guided the study:

Research Question 1: How do the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country correlate with the U.S. and South Korean cultural value dimension index scores for PD, IDV, IVR, MAS, UA, and LTO?

$H_0 1$: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not

statistically significantly correlated with the U.S. or South Korean national value indicators for PD, IDV, IVR, MAS, UA, and LTO.

H_A1: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly correlated with U.S. or South Korean national value indicators for PD, IDV, IVR, MAS, UA, LTO.

Research Question 2: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of PD?

H_02: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value PD indicators.

H_A2: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value PD indicators.

Research Question 3: What is the nature of the relationship among the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of IDV?

> H_03: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value IDV indicators.

> H_A3: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value IDV indicators.

Research Question 4: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of IVR?

> H_04: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not

statistically significantly different among U.S. or South Korean national value IVR indicators.

H_A4: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value IVR indicators.

Research Question 5: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of MAS?

H_05: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value MAS indicators.

H_A5: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value MAS indicators.

Research Question 6: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of UA?

$H_0 6$: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation and total years lived abroad in another country are not statistically significantly different among U.S. or South Korean national value UA indicators.

$H_A 6$: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are statistically significantly different among U.S. or South Korean national value UA indicators.

Research Question 7: What is the nature of the relationship between the IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country and the DV of LTO?

$H_0 7$: The IVs of education level, years served in the military, military rank, foreign language proficiency, military exchange program participation, and total years lived abroad in another country are not

statistically significantly different among U.S. or South Korean national

value LTO indicators.

H_A7: The IVs of education level, years served in the military, military

rank, foreign language proficiency, military exchange program

participation, and total years lived abroad in another country are

statistically significantly different among U.S. or South Korean national

value LTO indicators.

Research Question 8: What are the differences between the U.S. and South

Korean ACC staff member national value dimensions (PD, IDV, IVR, MAS, UA,

and LTO)?

H_08: There are no statistically significant differences between the U.S. Air

Force staff member value dimensions and the South Korean Air Force

staff member value dimensions.

H_A8: There are statistically significant differences between the U.S. Air

Force staff officer value dimensions and the South Korean Air Force staff

officer value dimensions.

Data Collection and Administration

In this study, I collected and assessed primary data based on the Hofstede and

Minkov (2013) VSM. Military specific demographic survey questions were added to the

protocol and distributed to staff officers assigned to the ACC Headquarters, Osan Air

Base, Republic of South Korea; the survey window opened on March 5, 2016, and closed

March 26, 2016. The IVs assessed in this study were: education level, experience living

abroad, military rank, foreign language proficiency, exchange program participation, and military time served. The DVs were: PD, IDV, IVR, MAS, UA, and LTO.

The survey was distributed to 92 U.S.' and 152 South Korean Air Forces staff officers, for a total of 244 surveys distributed. A total of 178 officers returned surveys with U.S. staff officers returning 85 (92.4% return rate) and Korean staff officers returning 93 (61.2% return rate). All surveys were returned anonymously, and then data were tabulated, screened, and logged into the SPSS software for analysis.

Demographics and Sample Characteristics

All of the data were reviewed, cleaned, and checked for outliers in preparation for analysis. I analyzed survey questions to determine mean index scores across the culture dimensions for each of the U.S. and Korean samples. Each survey response was worth five points, consisting of four unique questions assigned to each IV with 24 questions in total. Scores were calculated according to the VSM (see Chapter 3 for calculation details). All participants provided complete responses; there were no missed or disqualifying responses. There were no participant consent violations or respondent concerns noted during data collection. Refer to Table 5 for demographics overview and Table 7 for descriptive statistics for each of the six national value index scores evaluated in this study.

- M_A = Mean American (United States) Value

- M_K = Mean Korean Value

Independent Variables (IVs)

Military time served and military rank. The sampling frame for this study

included 244 total U.S. and Korean officers ($N = 178$) between the rank of second

Lieutenant and Colonel, having served between 1 and 29 years in the military. Of the

total study participants, 165 were males and 13 were females; South Korean females

accounted for only 2% ($n = 2$) and U.S. females, 13% ($n = 11$). Company grade officers

accounted for 54% ($n = 50$) of the South Korean responses, while company grade officers

accounted for only 20% ($n = 17$) of the U.S. responses. Korean study participants mostly

served < 3 years of military service, mode $= 3, n = 21$ (23%), yet the $M_K = 11.6$ years$, n$

$= 50$ (57%), indicating that while fewer senior ranking South Korean officers participated

in the study ($n = 43$, 46%), the seniors who did participate had a significant amount of

military service. U.S. participants served on average $M_A = 16.3$ years ($n = 48$, 54%, and

mode $= 16$), which indicated a relatively experienced group of participants compared to

the South Korean sample (military time served mean variance was 4.7 years).

Results showed that most of the Korean participants were relatively new to the

Air Force and of low rank, which would have given them limited opportunities for

exposure to cross-cultural military programs, training, education, and so on. Compared

with participants who had more than 15 years of service, $n = 31$, who would have been

given more opportunities to engage with their U.S. counterparts during the course of their

career. U.S. officers were generally older and of higher rank. Although the country

samples were demographically different based on these demographic variables, their

responses to the survey remain valid and valuable data points for determining

dimensional variance.

Table 5

South Korean/United States Demographics (N = 178)

Independent Variables	Korean Members *n* = 93	United States Members *n* = 85
Military Time Served		
1-10 Years	47 (50.5%)	15 (17.6%)
11-20 Years	31 (27.9%)	42 (49.5%)
21-30 Years	17 (21.6%)	28 (32.9%)
Rank		
Company Grade	50 (53%)	17 (20%)
Field Grade	43 (46.2%)	68 (80%)
Education Level		
11-16 Years (Bachelors Only Degree)	63 (67.7%)	16 (25.9%)
17-18 Years (Master's Degree)	30 (32.3%)	69 (74.1%)
Years Lived Abroad		
None	67 (72%)	0 (0%)
1-5 Years	14 (15.1%)	29 (34.1%)
6-10 Years	12 (12.9%)	56 (65.9%)
Military Exchange Experience		
None	83 (89.2%)	75 (88.2%)
Yes	10 (10.8%)	10 (11.8%)
Foreign Language Proficiency		
None	40 (43%)	61 (71.8%)
Moderate	27 (29%)	10 (11.8%)
Fluent	26 (28%)	14 (16.5%)

Note. Percentages are approximate values.

Years lived abroad and language proficiency. Regarding those Koreans with experience living abroad, 72% ($n = 67$) of the Koreans had never lived outside of the country, while $n = 85$ (100%) of the U.S. respondents had experience abroad. Because the study was conducted on a foreign U.S. military base, 100% of all U.S. participants marked that they had experience living abroad. Most of the Koreans reported that they spoke a language other than Korean, $n = 53$ (58%), 28% spoke another language fluently, $n = 26$. The U.S. participants self-reported significantly less foreign language proficiency, $n = 24$ (28%), with 12% moderately fluent ($n = 10$) and 17% completely fluent ($n = 14$). Languages reported included Italian, Spanish, Korean, Chinese, Russian, and German.

Education level and military exchanges program experience. Most of the Korean participants answered that they had 16 years of formal schooling and had earned a Bachelor's degree, $n = 63$ (68%), while 32% ($n = 30$) had over 17 years of formal school and earned a Master's degrees. Conversely, U.S. officers reported much higher numbers of those earning Master's degrees, 69% ($n = 74\%$). Participation in military exchange professional education was rare for the Korean and U.S. participants, $M_K = 1.11$, $n = 10$ (11%) and $M_A = 1.12$, $n = 10$ (12%) respectively.

To summarize, the Korean participants in this study were predominantly male, proficient multilingual company grade officers (Lieutenant to Captain), less than 26 years old, had less than 10 years of military service, earned only Bachelor's degrees, and had never lived abroad or attended a military exchange program. The U.S. participant responses were also generally male field grade officers (Major to Colonel), had significant experience living abroad with moderate foreign language ability spread

throughout the ranks. The U.S. participants had mostly earned Master's degrees, had more than 16 years of military service, and had never attended a military exchange program.

Dependent Variables (DVs)

As a group, the six national culture value index mean scores ranged from a high of $M = 50.12$ (highly independent and free thinking society), to a low of $M = -25.41$ (a society valuing group think and community). Negative values/coefficients (U.S. MAS, UA, LTO) were positively adjusted. The abbreviated index scores by country can be found in Table 6.

Table 6

National Cultural Value Dimension Results

Cultural Dimensions	Korean Members $n = 93$	United States Members $n = 85$
PD	39.95	38.24
IDV	13.82	22.35
MAS	40.57 (*15.15)	0 (*-25.41)
UA	41.87 (*13.28)	0 (*-31.59)
LTO	23.15 (*2.91)	0 (*-20.24)
IVR	49.73	50.12

Note. *Indicates raw mean value calculation before adjusting for positive comparison. See Chapter 3 for value dimension formula and an explanation of how to apply coefficients.

The Korean SS for all variable analysis was $n = 93$ and the U.S. sample size was $n = 85$. Hofsted and Minkov (2013) offered that scores less than 50 tended to show societies favoring the low-end of the national value dimension spectrum. Scores above 50 were considered to be high value; however in all cases, scores must be compared with

matched country samples to make meaningful comparisons. Comparing results between different nationalities or across different research mediums may not yield the same results. Researchers should use caution when comparing the result from this study with other findings from Hofstede's database or from other research efforts.

Power Distance Index Scores (PD)

Korean and U.S. scores less than 50 points signified less autocracy and power imbalance. Korean results less than 50 accounted for 84% ($n = 68$ and $SD = 38.24$). Korean PD values ranged from -30 to 120. The PD mean was $M_K = 39.95$, the mode = 25, and the $Mdn = 35$. U.S. PD values less than 50 were far less than the Korean's accounting for 59% ($n = 50$ and $SD = 43.94$). U.S. PD values ranged from -65 to 110. PD mean was $M_A = 38.24$, the mode = 0, and the $Mdn = 35$. Both the Korean and U.S. scores where similar indicating that both cultures perceived their environment as less hierarchical favoring equality over centralization.

Individualism Index Scores (IDV)

The Korean Individualism index score range = 175, $SD = 45.5$. The Mdn and mode both equaled zero ($n = 32$; 34%), which was very near $M_K = 13.82$. Comparatively, the U.S. IDV scores were very similar, range = 175, $SD = 43.63$. The Mdn and mode were both 35 ($n = 23$; 74%), which was higher than the mean value $M_A = 22.35$ (63%). Both Korean and U.S. IDV scores were relatively similar and well below 50, which indicated that both cultures were generally collectivists and favored interdependence where loyalty within groups was the most important as opposed to individual wants and desires.

Masculinity Index Scores (MAS)

Both the South Korean and U.S. *MAS* scores showed a range = 175, *SD* = 42.1

and 41.9. To ensure only positive value comparisons the Korean MAS value, M_K = 15.16

was adjusted by adding the raw mean U.S. MAS value coefficient M_A = -25.41. The

result produced a new Korean MAS score of M_K = 40.57 (*n* = 34; 56%). The U.S. MAS

recalculated value was M_A = 0 (*n* = 51; 60%). Scores below 50 indicated a mostly

feminine society that predominantly cares for others and is concerned with quality of life

issues.

Uncertainty Index Scores (UA)

UA scores showed the largest SD was 59.9 and the variances ranged from -105 to

165. As with the MAS recalculation, UA was also recalculated in favor of positive mean

coefficient value comparisons. The original Korean UA participant responses indicated

cultural flexibility, M_K = *13.28* (*n* = 67; 61%), which was recalculated using the U.S.

results M_A = -31.59. The new Korean UA value is M_K = 13.28 + M_A = 31.59) was M_K =

41.87. The mode and *Mdn* were both 10, *n* = 15, (16%). The U.S. UA scores ranged from

-130 to 65. The raw UA value was M_A = -31.59, which was recalculated to *M* = 0 to aid in

value score comparison, *SD* = 47.9. With the exception of the large standard deviation,

these low scores (< 50) indicated a society that is both adaptable and welcomes

ambiguity; precision is often less important than making timely decisions.

Long-Term Orientation Index Scores (LTO)

Korean LTO scores showed a surprisingly low mean, M_K = 2.91, *SD* = 43.1

compared to Hofstede's published studies (*M* = 100); the mode = 0 with *n* = 26 (28%).

The Korean LTO score was adjusted using the U.S. raw score, $M_A = -20.24$. The new

Korean LTO score ($M_k = 2.91 + M_{A=20.24}$) was $M_K = 23.15$ ($n = 77$; 87%). The U.S.

LTO recalculated score was $M_A = 0$ ($n = 50$; 55%). The *Mdn* and mode were both -25

($n = 17$; 20%; $SD = 48.4$). When $M < 50$ societies are thought to discourage change; these

societies are seen as normative and prefer tradition; they generally stray from larges

changes and prefer that status quo.

Indulgence Index Score (IVR)

The largest Korean variance was seen in the IVR score, the mean value range was

between -85 to 155 ($SD = 60.98$). Most impressive was $M_K = 49.73$, a mode of 75

($n = 58$; 68%), and a Mdn of 70. All results ($M > 50$) emphasized the need for individual

gratification and a lack of self-control. The U.S. IVR scores ranged from -35 to120

($SD = 41.48$) with $M_A = 50.12$. ($n = 47$; 55%). Korean and U.S. scores where very close

indicating marginal restraint in their ability to control impulse and desire. This dimension

is closely related to IDV. A Tukey Post-Hoc test examined PD and IDV to determine if

the differences between subgroups were statistically significant. Refer to Table 3 in

previous section for South Korean and U.S. demographic results.

<div align="center">Data Assumptions and Analysis</div>

The study research design and sampling strategy ensured that the assumption of

independence of observations for each group of independent variables was met. The

design of the survey instrument and method of distribution confirmed that independent

group relationships were maintained and that each group participant was unique to that

group. The regression plots were assessed for nonlinearity by comparing standardized

residuals and visually inspecting each dependent variable and independent scatterplot;

Korean and U.S. results were *approximately linear*. Likewise, *homogeneity of variance*

was supported confirming the variance within each of the populations was equal.

Homogeneity of variances, as assessed by Levene's test for equality of variances was not

violated ($p > .05$). *P-P Plots* and *standardized* histograms were assessed for normality as

well as *Q-Q Plots of studentized residuals*. Normality was also assessed by comparing *z*-

score skewness and kurtosis; all values were less ±2.58, $p = .01$ (Ghasemi & Zahediasl,

2012). Additionally, with $N = 178$, the dataset (greater than 50) was large enough to

apply the central limit theorem.

Outliers were assessed by comparing *standardized residual scatterplots*, *casewise*

diagnostics, *SD <> ±3*, *cook's distance*, *< 1*, and *leverage values* for each case, *< .2*.

Descriptive boxplot analysis showed some U.S. and South Korean cases to be outside the

expected range, but these cases were retained due to the importance of capturing data at

the margins (e.g., the relationship between individualism and long periods living abroad).

Specifically, military rank, years lived abroad, and language proficiency was highlighted

as they related to MAS, IDV, UA, and LTO. Each individual case was assessed

separately. These few cases as they related to each of the dimensions were important data

points needed to inferentially demonstrate the effects of military experience, language

proficiency, and cultural exposure on the dependent variables.

In summary, bivariate correlation and analyses between groups (*t* test and

ANOVA) were used to assess South Korean and U.S. cultural dimension values. The

assumptions of linearity, independence of errors, homogeneity of variance, unusual

points, and normality of residuals were met for all variables. No cases were removed based on leverage values or *SD* residual bias.

Research Question 1

How do the independent variables education level, years served in the military, military rank, foreign language proficiency, and total years lived abroad in another country correlate with U.S. and South Korean cultural value dimension index scores PD, IDV, IVR, MAS, UA, and LTO? Bivariate correlation analysis was conducted on all variables to find the strength of the relationship (association) between each of the six value dimensions and the independent variables. Pearson's Product-Moment Correlation (*r*) tested the continuous variables, education level and time served in the military, to understand the relationship between each of the six cultural value dimensions. A Spearman's Rank-Order Correlation (r_s) was used to evaluate the categorical variables, military rank, years lived abroad, exchange program participation, and foreign language proficiency, and their relationship with each of the six value dimensions.

South Korea-pearson and spearman correlation. Among the continuous variables military time served and education level, only MAS, UA, and IVR showed statistical significance, $p < .05$. MAS coefficients were weak to moderately correlated and positively associated with military time served, $r(91) = .262$, $p < .05$, and military time served. UA was similarly positively correlated with education level, $r(91) = .233$, $p < .05$. Conversely, military time served and education level were moderately negatively correlated with IVR, $r(91) = -.285$, $p < .01$; $r(91) = -.302$, $p < .01$; $r(91) = -.289$; $p < .01$ respectively. Among the categorical independent variables, PD, IDV, MAS, LTO, and

IVR were statistically significant ($p < .05$) and weak to moderately correlated; UA was not correlated with any of the categorical variables, which included military rank, time lived abroad, military exchanges, or language proficiency. Refer to Table 7 for details. PD was positively correlated only with military exchange program experience, $r_s(91) = .243$, $p < .05$. IDV had weak positive correlation with time lived abroad and language proficiency, $r_s(91) = .246$, $p < .05$ and $r_s(91) = .299$, $p < .01$. Similarly, there was a moderate correlation between MAS and military rank, $r_s(91) = .283$, $p < .01$. LTO was negatively correlated with years lived abroad, $r_s(91) = -.222$, $p < .05$ and language proficiency, $r_s(91) = -.293$, $p < .01$. Likewise, there was moderate negative correlation between IVR and military rank, $r_s(91) = -.314$, $p < .01$.

There was a statistically significant relationship between ($p < .05$) MAS, UA, and IVR with education level and military time served; MAS with military rank; IDV with time lived abroad and language proficiency; PD with exchange program experience; LTO with time lived abroad and language proficiency; and, IVR with military rank. We can reject the null hypothesis and accept the alternative hypothesis for these variables only.

Table 7

South Korean Correlation—Pearson and Spearman Coefficient Relationships

	Continuous Variables			Categorical Variables		
	Education Level	Military Time Served	Military Rank	Time Lived Abroad	Language Prof	Exchange PME
PD	.071	-.149	-.080	.149	.128	.243*
IDV	-.179	-.126	-.052	.246*	.299**	.037
MAS	.170	.262*	.283**	-.137	-.053	.080
UA	.233*	-.006	.092	-.165	-.030	-.067
LTO	-.024	-.056	-.105	-.222*	-.293**	-.194
IVR	.289**	-.285**	-.314**	.158	.169	-.073

Note. Correlation is significant at $*p < .05$, $**p < .01$ (2-tailed).

United States-pearson and spearman correlation. Among the continuous variables military time served and education level, only PD showed statistical significance, $p < .05$. PD coefficients were only positively correlated with education level, $r(83) = .220$, $p < .05$. Among the categorical independent variables, PD, MAS, LTO, and IVR were statistically significant ($p < .05$) and moderately correlated (r_s); UA and IDV were not correlated with any of the categorical variables, which included military rank, time lived abroad, military exchange experience, or language proficiency. Refer to Table 8 for U.S. correlation results. PD was negatively correlated only with military rank, $r_s (83) = -.267$, $p < .05$. Alternatively, MAS was positively correlated with military rank, $r_s(83) = .217$, $p < .05$. Similarly, there was a positive moderate correlation between LTO and exchange program participation, $r_s(83) = .293$, $p < .01$. IVR showed a negative correlation with time lived abroad in another country, $r_s(83) = .020$, $p < .05$.

There was a statistically significant relationship ($p > .05$) between PD with education level and military rank. Likewise, there was a statistically significant relationship ($p > .05$) between MAS with military rank, LTO with exchange program experience, and IVR with time lived abroad. We can reject the null hypothesis and accept the alternative hypothesis for these variables only.

Table 8

United States Correlation—Pearson and Spearman Coefficient Relationships

	Continuous Variables			Categorical Variables		
	Education Level	Military Time Served	Military Rank	Time Lived Abroad	Language Prof	Exchange PME
PD	.220*	.130	-.267*	.069	.022	.043
IDV	-.129	-.019	.005	.086	-.097	-.008
MAS	.133	.029	.217*	.045	.086	.174
UA	-.081	-.186	.034	.178	-.081	-.197
LTO	.064	.034	.126	.095	-.073	.293**
IVR	.155	.052	-.158	-.252*	.031	.033

Note. Correlation is significant at *$p < .05$, **$p < .01$ (2-tailed).

Research Questions 2 through 7

South Korea and United States results. An independent *t* test and one-way ANOVA was used to determine if mean significant differences existed between the factor groups of each independent variable using each of the six value dimensions (dependent variables) as a baseline: PD, IDV, MAS, UA, LTO, and IVR. Equal variances were assumed for *t*-test results, while statistically significant one-way ANOVA results were followed with either a Tukey Post-Hoc or Games-Howell Post-Hoc test to determine

within-group differences. There were no outliers in the data, as assessed by inspection of a boxplot and leverage values. The data was approximately normally distributed and there was homogeneity of variances, as assessed by Levene's test for equality of variance ($p > .05$), refer to Table 9 (South Korean military rank), Table 10 (South Korean military exchange experience), Table 11 (U.S. military rank), Table 12 (U.S. military exchange experience) for *t*-test results.

Table 9

South Korea Independent-Samples t test—Military Rank

	F	.Sig	*t*	df	Sig. (2-tailed)	95% CI Lower/ Upper
PD (EVA)	.002	.965	.720	91	.473	-10.099/21.578
IDV (EVA)	2.141	.146	.680	91	.498	-12.399/25.302
MAS (EVA)	.779	.389	-2.765	91	.007*	-40.133/-6.579
UA (EVA)	.544	.463	-.359	91	.720	-29.354/20.370
LTO (EVA)	.810	.371	.966	91	.336	-9.143/26.472
IVR (EVA)	1.121	.291	2.960	91	.004*	11.860/60.242

Note. F = f-test, Sig = significance (homogeneity of Variances is met at *p* > .05). CI=confidence interval, *Group differences are significant at *p* < .05 (2-tailed). Equal Variances Assumed (EVA).

Table 10

South Korean Independent-Samples t test—Military Exchange Program

	F	.Sig	t	df	Sig. (2-tailed)	95% CI Lower/ Upper
PD (EVA)	.049	.826	2.335	91	.0.22*	-54.024/-4.361
IDV (EVA)	.062	.804	-.013	91	.989	30.621/30.211
MAS (EVA)	.2.21	.141	-.699	91	.487	-37.900/18.177
UA (EVA)	.659	.419	.937	91	.351	-21.058/58.661
LTO (EVNA)	.178	.674	1.842	91	.044*	-2.50/54.519
IVR (EVA)	.046	.831	.973	91	.333	-20.688/60.423

Note. F = f-test, Sig = significance (homogeneity of Variances is met at p > .05). CI=confidence interval, *Group differences are significant at *p* < .05 (2-tailed). Equal Variances Assumed (EVA). Equal Variances Not Assumed (EVNA).

Table 11

United States Independent-Samples t test—Military Rank

	F	.Sig	t	df	Sig. (2-tailed)	95% CI Lower/ Upper
PD (EVA)	1.260	.265	2.547	83	.013*	-6.448/52.376
IDV (EVA)	1.028	.314	-.185	83	.853	-25.972/21.460
MAS (EVA)	.393	.532	-1.982	83	.051*	-44.635/.076
UA (EVA)	.695	.407	-.186	83	.853	-28.406/23.553
LTO (EVA)	.027	.869	-1.214	83	.228	-41.904/10.139
IVR (EVA)	.144	.706	1.557	83	.123	-4.854/39.854

Note. F = f-test, Sig = significance (homogeneity of Variances is met at *p* > .05). CI = confidence interval, *Group differences are significant at *p* < .05 (2-tailed). Equal Variances Assumed (EVA).

Table 12

United States Independent-Samples t test—Military Exchange Program

	F	.Sig	t	df	Sig. (2-tailed)	95% CI Lower/ Upper
PD (EVA)	1.109	.298	-.401	83	.689	-35.541/23.608
IDV (EVA)	1.005	.319	.181	83	.857	-26.715/32.078
MAS (EVA)	.034	.855	-1.771	83	.080	-52.715/3.049
UA (EVA)	.663	.418	-1.885	83	.063	-1.658/51.574
LTO (EVA)	1.435	.234	-2.685	83	.009*	-73.462/-10.938
IVR (EVA)	.336	.564	-.231	83	.818	-31.412/24.879

Note. F = f-test, Sig = significance (homogeneity of Variances is met at $p > .05$). CI = confidence interval, *Group differences are significant at $p < .05$ (2-tailed).

South Korean independent-samples *t* test. An independent-samples *t* test was used for all six cultural dimensions to examine national value differences between South Korean company grade officers and field grade officers. The t test also measured the differences between those who had military exchange program experience and those who did not. There were 50 company grade officer and 43 field grade officer participants.

Military rank. Only MAS were statistically significant with company grade officers registering lower MAS scores ($M_K = 4.90$, $SD = 41.302$), a statistically significant difference of $M_K = -23.356$, $SE = 5.66$, $t(91) = -2.765$, $p = .007$, $d = -.03$, but higher statistically significant IVR scores ($M_K = 66.40$, $SD = 64.45$), $M_K = 35.05$, $SE = 9.114$, $t(91) = 2.960$, $p = .004$, $d = .23$. MAS and IVR *t*-test results showed statistically significant differences between officer groups ($p < .05$), and therefore, the null hypothesis was rejected and the alternate hypothesis was accepted. PD, IDV, LTO, and UA were not

statistically significant ($p > .05$), and therefore, the null hypothesis was accepted and the alternate hypothesis rejected. Field grade officers possessed more masculine behaviors than company grade officers, and company grade officers were much more indulgent than field grade officers according to Hofstede's theory of national culture dimensions. Overall, South Korean participant officers uncorrected mean MAS index was 15.70, which equates to an overall *feminine* society even though there are significant differences within the groups according to the data. Likewise, the IVR mean index of 49.73 highlighted a more *indulgent* South Korean population despite the restraint qualities noted in the field grade officer sample.

Military exchange program experience. Exchange program experience included only 10 participants who had any foreign military exchange experience, while 83 had no experience. PD and LTO were the only statistically significant dimensions of the six dimensions tested among those with military exchange program experience and those without. PD was higher for those with experience ($M_K = 66.00$, $SD = 36.12$), a statistically significant difference, $M_K = -29.19$, $SE = 4.11$, $t(91) = -2.335$, $p = .022$, $d = -.80$. LTO showed that those with exchange experience had very low LTO scores compared to those with no exchange experience ($M_K = -20.30$, $SD = 33.95$), also a statistically significant difference, $M_K = 26.235$, $SE = 10.735$, $t(91) = 2.234$, $p = .044$, $d = .67$. Refer to Table 13 for *t* test uncorrected between-group results.

PD and LTO *t*-tests revealed statistically significant differences between means for those with and without exchange experience ($p < .05$), and therefore, the null hypothesis was rejected and the alternate hypothesis was accepted. IDV, MAS, UA, and

IVR were not statistically significant (*p* > .05), and therefore, the null hypothesis was accepted and the alternate hypothesis rejected. Members with military exchange experience were more hierarchical scoring higher PD results than those without experience. Although both groups had very low LTO scores, those with exchange experience favored traditional approaches.

Table 13

South Korean Independent-Samples ttest—Military Rank and Exchange Experience

	PD	IDV	MAS	UA	LTO	IVR
Military Rank						
Company Grade	42.6	16.8	4.9*	11.2	6.9	66.4*
Field Grade	36.9	10.4	28.3*	15.7	-1.7	30.3*
Cohen d	-.02	.17	-.03	.09	.14	.23
Exchange Experience						
None	36.8*	13.8	14.6	15.3	5.7*	51.9
Yes	66.0*	14.0	24.5	-3.5	-20.5*	32.0
Cohen d	-.80	.00	-.27	.35	.67	.33

Note. * Significant at *p* < .05 (2-tailed). *d* = Cohen's *d* for effects size. Mean index values are not adjusted to offset negative coefficient's.

United States independent samples *t* test. An independent-samples *t* test was used to measure the six cultural national value differences between U.S. company grade officers and field grade officers. The *t* test also measured the differences between those who had military exchange program experience and those who did not. There were 17 company grade officer and 68 field grade officer participants.

Military rank. The U.S. samples showed that PD and MAS were statistically

significant with company grade officers registering higher PD scores than field grade

officers (M_A = 61.8, SD = 35.176), a statistically significant difference, M_A = 29.412, 95%

CI [6.5, 52.3], $t(83)$ = 2.547, p = .013, d = .73. Field grade officers scored higher MAS

scores than company grade officers (M_A = -20.96, SD = 39.97), a statistically significant

difference, M_A = -22.79, 95% CI [*.076, -44.6*], $t(83)$ = -1.982, p = .050, d = -.51. Refer to

Table 14 for *t* test uncorrected between-group results. PD and MAS *t*-test analysis

showed statistically significant differences between means (p < .05), and therefore, the

null hypothesis was rejected and the alternate hypothesis accepted. IDV, UA, LTO, and

IVR were not statistically significant (p > .05), and therefore, null hypothesis was

accepted and the alternate hypothesis was rejected.

United States company grade officers possessed a greater perception of power

distance within their organizations than did the more senior officers. The field grade

officers were slightly more feminine than the younger company grade officers according

to Hofstede's theory of national culture dimensions. Overall, the U.S. participants

collectively among all ranks demonstrated an uncorrected mean PD index of 38.24,

which equated to an overall *equal* society, with the company grade officers perceiving

higher levels of acceptable inequality. Likewise, the MAS mean index of M_A = -25.4

highlighted a highly feminine culture with the company grade officers twice as feminine

as the field graders.

Military exchange program experience. Exchange program experience included

only 10 participants who indicated they had any foreign military exchange experience,

while 83 had no experience. LTO was the only statistically significant dimension of the six dimensions tested. LTO was higher for those with exchange experience ($M_A = 17.00$, $SD = 10.36$), a statistically significant difference, $M_A = -42.2$, 95% CI [$-10.95, 73.46$]), $t(83) = -2.685$, $p = .009$, $d = -1.0$. The results showed that those with exchange experience had LTO scores twice as high as those without experience. LTO t-test analysis showed statistically significant differences between means ($p < .05$), and therefore, the null hypothesis was rejected and the alternate hypothesis was accepted. PD, IDV, UA, and IVR were not statistically significant ($p > .05$), and therefore, the null hypothesis was accepted and the alternate hypothesis rejected.

Those participants with and without exchange experience scored exceptionally low on the LTO index. Members with military exchange experience were more hierarchical scoring higher PD results than those without experience. Field grade officers tended to be less hierarchical and more masculine. Although both groups scored very low on the LTO index, those with military exchange experience were slightly more pragmatic favoring change over stability. Altogether, the Korean and U.S. LTO scores were statistically significant and resulted in a more near-term focused approach ($M < 50$) favoring organizational steadiness over long-term durability and growth (Hofstede, 2010).

Table 14

United States Independent-Samples t test—Military Rank and Exchange Experience

	PD	IDV	MAS	UA	LTO	IVR
Military Rank						
Company Grade	61.8*	20.6	-43.2*	-33.5	-32.9	64.1
Field Grade	32.4*	22.8	-21.0*	-31.0	-17.1	46.6
Cohen d	.73	-.53	-.51	-.05	-.33	.42
Exchange Experience						
None	37.5	22.7	-28.3	-28.1	-25.2*	49.7
Yes	43.5	20.0	-3.50	-58.0	-17.0*	53.0
Cohen d	-.14	.07	-.60	.68	-1.0	-.08

Note. * Significant at $p < .05$ (2-tailed). d = Cohen's d for effects size. Mean index values are not adjusted to offset negative coefficient's.

ANOVA—South Korean years lived abroad. In order to test the differences between South Korean participants and subgroup responses, a one-way ANOVA was performed comparing the six cultural dimensions with the number of years members had lived abroad. Participants were classified into three groups: They had never lived abroad ($n = 67$), they had between 1–5 years lived abroad ($n = 14$), or they had between 6–10 years lived abroad ($n = 12$). There were no outliers as assessed by boxplots; data was normally distributed for each group as assessed by Shapiro-Wilkes test ($p > .05$); and there was homogeneity of variances for all but IDV, as assessed by Levene's test of homogeneity of variances ($p > .05$).

ANOVA results indicated that between group differences were statistically significant for individualism, long-term orientation, and indulgence ($p < .05$). Tukey Post-Hoc tests were run for only statistically significant results; homogeneity of variance was not met for individualism, and while IDV results were significant, Games-Howell indicated no statistically significant differences between the groups. IDV was higher for those with more than 6 years living outside of South Korea, ($M = 40.83$, $SD = 55.51$), and the differences between the groups were statistically significant, $F(2, 90) = 4.398$, $p = 0.15$. Specifically, the results of the Korean members who had not lived abroad where significantly different from those with 6–10 years living outside the country ($p = .032$). LTO results for all three groups were very low with those living abroad between 1–5 years scoring the lowest, ($M = -21.07$, $SD = 27.61$), and statistically significant, $F(2, 90) = 3.315$, $p = .041$.

A Tukey Post-Hoc results showed significant differences between those without time living abroad compared to those with 1–5 years' experience living outside the country ($p = .041$). Overall, participants with more than 6 years living abroad scored the highest in the IVR category, $M = 90.42$, $SD = 50.92$; these results were also statistically significant, $F(2, 90) = 3.350$, $p = 040$. A Tukey Post-Hoc showed significant differences between the two extremes—those with no experience and those with more than 6 years, $p = .045$ (refer to Table 15 for ANOVA results). IDV, LTO, and IVR group means were significantly different ($p < .05$); therefore, the null hypothesis was rejected, and the alternate hypothesis was accepted for only these three cultural value dimensions. For PD,

MAS, and UA the group means were not significantly different ($p > .05$), and therefore

null hypothesis was accepted and the alternate hypothesis was rejected.

Table 15

South Korea One-Way ANOVA—Years Lived Abroad

	Mean	Std Dev	*F*
PD			
None	36.34	38.98	
1-5 Years	54.29	36.21	1.339
6-10 Years	43.33	34.79	
IDV			
None	5.60	60.76	
1-5 Years	30.00	59.61	7.883*
6-10 Years	40.83	55.51	
MAS			
None	19.70	42.71	
1-5 Years	10.00	37.42	1.276
6-10 Years	.00	42.21	
UA			
None	19.18	62.22	
1-5 Years	10.36	47.29	1.832
6-10 Years	-16.25	54.53	
LTO			
None	9.42	42.39	
1-5 Years	-21.07	27.61	3.315*
6-10 Years	05.42	52.72	
IVR			
None	45.22	61.27	
1-5 Years	36.43	56.89	3.350*
6-10 Years	90.42	50.92	

Note. * Statistically Significant $p < .05$.

ANOVA—South Korean foreign language proficiency. A one-way ANOVA test was performed to measure the differences between groups of South Korean officers who self-reported that they spoke a foreign language. The test showed how well participants self-reported their ability to speak another foreign language and measured the differences broken down by cultural dimension index score. Participants were classified into three groups: They could not speak a foreign language ($n = 40$), they could speak a foreign language moderately well ($n = 27$), or they were fluent in another foreign language ($n = 26$). There were no outliers, as assessed by boxplot; data was normally distributed for each group, as assessed by Shapiro-Wilkes test ($p > .05$); and there was homogeneity of variances for all but IDV and UA, as assessed by Levene's test of homogeneity of variances ($p > .05$). ANOVA testing reveled that between group differences were statistically significant for individualism and long-term orientation ($p < .05$).

A Tukey Post-Hoc test was run for LTO and a Games-Howell test was run for IDV to determine if the difference between sub-groups was statistically significant. ANOVA testing showed that those who spoke a foreign language recorded higher IDV scores than those that did not, and those who were fluent scored the highest, $M_K = 32.31$, $SD = 54.15$ indicating they favored independence over collective group thinking. IDV scores were also statistically significant between the levels of foreign language proficiency, $F(2, 91) = 5.676$, $p = .005$. Games-Howell tests indicated significant differences between those with no language experience and those who were fluent ($p = .013$). The LTO results were similar to those recorded from years lived abroad where

those with the most experience or proficiency in a foreign language scored the lowest,

M_K = -16.2, SD = 41.42, which was also statistically significant, $F(2, 90)$ = 4.070, p =

.020. The Tukey Post-Hoc test reinforced that those without language experience and

those that were fluent were significantly different (p = .016). Complete ANOVA

language proficiency test results can be found in Table 16. IDV and LTO group means

were significantly different (p < .05) and, therefore, the null hypothesis was rejected and

the alternate hypothesis was accepted. For PD, MAS, UA, and IVR the group means were

not significantly different (p > .05), and therefore the null cannot be rejected.

Table 16

South Korea One-Way ANOVA—Foreign Language Proficiency

	Mean	Std Dev	*F*
PD			
None	33.50	40.48	
Moderate	46.67	37.90	1.064
Fluent	43.89	34.73	
IDV			
None	-2.88	31.54	
Moderate	20.74	46.87	5.676*
Fluent	32.31	54.15	
MAS			
None	17.25	46.82	
Moderate	23.33	32.19	1.261
Fluent	5.38	42.80	
UA			
None	16.36	69.99	
Moderate	11.67	42.45	.096
Fluent	10.19	60.52	
LTO			
None	13.28	43.82	
Moderate	5.37	38.55	4.070*
Fluent	-16.12	31.42	
IVR			
None	42.25	54.12	1.960
Moderate	41.67	50.84	
Fluent	69.62	61.71	

Note. *Statistically Significant $p < .05$.

ANOVA—United States years lived abroad. To test the differences between U.S. group responses, a one-way ANOVA testing was performed comparing the six cultural dimensions with the number of years members had lived abroad. Participants were classified into three groups: They had never lived abroad ($n = 0$), they had between 1-5 years living abroad ($n = 29$), or they had between 6-10 years living abroad ($n = 56$). There were no outliers as assessed by boxplots; data was normally distributed for each group as assessed by Shapiro-Wilkes test ($p > .05$); and there was homogeneity of variances for all dependent variable value dimensions, as assessed by Levene's test of homogeneity of variances ($p > .05$).

ANOVA results showed that between group differences were statistically significant only for IVR ($p = .014$). A Tukey Post-Hoc test was not used since there were only two subgroups showing participant responses; all participants had at least one year of experience living abroad. IVR scores were higher for those with between 1–5 years living outside the United States, ($M_A = 65.52$, $SD = 43.1$), and the differences between the groups were statistically significant, $F(2, 83) = 6.356$, $p = .014$. IDV group means were statistically significantly different ($p > .05$) and, therefore, the null hypothesis can be rejected and the alternate hypothesis accepted. For PD, IDV, MAS, UA, and LTO the group means were not significantly different ($p > .05$), and therefore the null hypothesis was accepted and the alternate hypothesis rejected (refer to Table 17 for ANOVA results).

Table 17

United States One-Way ANOVA—Years Lived Abroad

	Mean	Std Dev	*F*
PD			
None	N/A	N/A	
1-5 Years	34.31	43.28	.348
6-10 Years	40.27	44.54	
IDV			
None	N/A	N/A	
1-5 Years	16.38	37.96	.824
6-10 Years	25.45	55.51	
MAS			
None	N/A	N/A	
1-5 Years	-28.28	37.42	.201
6-10 Years	-23.93	42.21	
UA			
None	N/A	N/A	
1-5 Years	-42.76	47.29	2.436
6-10 Years	-25.80	54.53	
LTO			
None	N/A	N/A	
1-5 Years	-26.72	44.37	.790
6-10 Years	-16.88	50.39	
IVR			
None	N/A	N/A	
1-5 Years	65.52	43.08	6.356*
6-10 Years	42.14	39.16	

Note. *Statistically Significant *p* < .05.

ANOVA—United States foreign language proficiency. To test the six cultural

dimensions against the U.S. officers who spoke a foreign language compared by sub-

group, a one-way ANOVA was performed. This test indicated how well participants self-

reported their ability to speak another foreign language and measure the differences

broken down by cultural dimension score. Participants were classified into three groups:

They could not speak a foreign language ($n = 61$), they could speak a foreign language

moderately well ($n = 10$), or they were fluent in another foreign language ($n = 14$). There

were no outliers, as assessed by boxplot; data was normally distributed for each group, as

assessed by Shapiro-Wilkes test ($p > .05$); and there was homogeneity of variances for all

but UA and LTO, as assessed by Levene's test of homogeneity of variances ($p > .05$).

ANOVA testing reveled that between group differences were statistically significant for

PD and IDV ($p < .05$).

Speaking a foreign language indicated a higher degree of individualism for

moderate speakers according to the PD results ($M_A = 69.00$, $SD = 34.87$) compared to

those that did not speak another language ($M_A = 35.82$, $SD = 5.78$), the differences

between groups was statistically significant, $F(2, 82) = 3.174$, $p = .047$. PD scores for

moderate speakers scored twice as high as those that were fluent ($M_A = 26.79$, $SD = 9.73$)

as well as those that did not speak a foreign language. PD scores > 50 indicated that they

favored independence over collective group thinking (Hofstede et al., 2010). A Tukey

Post-Hoc test examined PD and IDV to determine if the differences between subgroups

were statistically significant. IDV scores were also statistically significant between the

levels of foreign language proficiency, $F(2, 82) = 5.281$, $p = .007$. A Tukey Post-Hoc test

indicated significant differences between those who did not speak a foreign language and those who spoke another language moderately ($p = .007$) and fluently ($p = .015$). HSD reinforced that those without language experience and those that were fluent were significantly different ($p = .016$).

ANOVA language proficiency results can be found in Tables 18. PD and IDV group means were significantly different ($p < .05$) and, therefore, the null hypothesis was rejected and the alternate hypothesis was accepted. For MAS, UA, LTO, and IVR the group means were not significantly different ($p > .05$), and therefore the null hypothesis was accepted and the alternate hypothesis was rejected.

Table 18

United States One-Way ANOVA—Foreign Language Proficiency

	Mean	Std Dev	*F*
PD			
None	35.82	45.17	
Moderate	69.00	34.87	3.174*
Fluent	38.24	36.41	
IDV			
None	26.70	43.85	
Moderate	-17.50	29.74	5.281*
Fluent	31.43	37.54	
MAS			
None	-27.46	41.63	
Moderate	-31.50	45.03	.866
Fluent	-12.14	43.00	
UA			
None	-29.34	43.82	
Moderate	-29.00	67.70	.488
Fluent	-31.59	51.05	
LTO			
None	-18.28	47.68	
Moderate	-31.00	29.14	.294
Fluent	-21.07	62.76	
IVR			
None	49.18	42.97	.199
Moderate	58.00	36.76	
Fluent	48.57	42.26	

Note. *Statistically Significant $p < .05$.

Research Question 8

For all DVs, Pearson and Spearmen correlation analysis was accomplished along with Independent Samples *t* tests and one-way ANOVA assessments measuring relationships between groups and between country samples. To answer the research question pertaining to the relationship between U.S. and South Korea mean score variances, an independent-samples *t* test was run. The *t* test was used to measure the differences in cultural dimensions. MAS, UA, and LTO scores were statistically significantly different between countries, $p < .05$, and therefore, the null hypothesis was rejected and the alternate hypothesis was accepted. PD, IDV, and IVR, differences indicated convergence between country mean scores, which were not statistically significant ($p > .05$), and therefore, the null hypothesis was accepted and the alternate hypothesis rejected (see Table 19 for details).

Collecting primary data and comparing the statistical results across all factor variable combinations provided a basis for assessing the impact of demographic effects. Research Questions 1 through 7 provided the basis for understanding how cultural dimensions could be influenced by experience. Based on the lessons derived from this study, it is possible to tailor programs and services to promote better working relationships among Alliance members.

Table 19

United States and South Korean (Combined)—Independent-Samples t test

	F	.Sig	*T*	df	Sig. (2-tailed)	95% CI Lower/ Upper
PD (EVA)	1.720	.191	.278	176	.782	-10.450/13.871
IDV (EVA)	.002	.966	-1.275	176	.204	-21.748/4.676
MAS (EVA)	.003	.958	6.506	176	.001**	-28.641/53.580
UA (EVA)	1.821	.179	5.486	176	.001**	-28.727/61.009
LTO (EVA)	1.974	.162	3.376	176	.001**	-9.618/36.681
IVR (EVNA)	11.505	.001	-.049	176	.960	-15.994/15.221

Note. F = f-test, Sig = significance (homogeneity of Variances is met at *p* > .05). CI = confidence interval, **Group differences are significant at *p* < .01 (2-tailed). Equal Variances Assumed (EVA), Equal Variances Not Assumed (EVNA).

Summary

In Chapter 4, I summarized the study results showcasing the primary data derived from the South Korea and U.S. staff officer survey responses. Cultural dimension scores were calculate using the formulas contained in the Hofstede and Minkov (2013) VSM instruction manual (see Chapter 3 for details). Descriptive statistics for the study variables were presented to allow inferential analysis and to understand the many factors affecting cultural dimensions. In Chapter 5, I examine the overall research findings and general contributions of the study, their impact on positive social change, and makes recommendations for future research.

Not all test results were statistically significant, but where appropriate, a brief summary and analysis was given for those results that were statistically significant. All study results were presented in tables aligned by the statistical tests employed. All

research questions were addressed along with their corresponding hypothesis to determine the relationship between the six dimension variables and the demographically derived independent variables. Effect size was extremely low for all variables tested, which suggested that their impact was likely not significant.

South Korea

Correlation testing indicated all independent variables were statistically significant to at least one national culture dimension. The differences in dimensional mean values and their direction and association were unexpected compared to the historical results published by Hofstede. South Korean PD, IDV, UA, and MAS were positively correlated with education level, military time served, rank, years lived abroad, exchange experience, and language proficiency. LTO and IVR where negatively correlated with all but exchange experience, which was not statistically significant. UA and LTO mean scores were surprisingly lower than expected for the South Korean members as previous studies indicated extremely high dimensional values. PD and IDV provided interesting insight into East and West cultural behaviors suggesting a close positive relationship with cross-cultural experiences (i.e., years lived abroad and learning another language). Military time served was positively correlated with masculinity, which supports the notion that as officers grow in experience and seniority they exhibit competitive behaviors that may lead to greater successes. LTO results were also interesting as those statistically significant relationships indicated that multicultural experience was inversely related; as experience increased, traditions and normative

behaviors decreased. With a growing and progressive society, it was presumed that South Korean culture would show increasing LTO scores as their global perspective expanded.

Assessing exchange program participation resulted in statistical significance of PD and LTO. The results indicated that those with military exchange experience tended to have higher PD scores, which was surprising in that it was suspected that exposure to other cultures would decrease PD in favor of equality and a flatter organizational pyramid (Hofstede et al., 2010). These results also support a commonly understood assertion that South Korea is traditionally hierarchical where inequality and central control are accepted (Hofstede et al., 2013). LTO showed very low mean scores for those participating in exchange programs compared to those who did not, while IDV was not affected at all by participation. IVR showed remarkably higher scores for those not participating, which was unexpected as it was thought that those exposed to other western conditions would adopt behaviors more aligned with indulgence vice restraint.

Assessing military rank resulted in statistical significance for MAS and IVR. MAS scores were lower for company grade officers most likely due to their lower echelon position within the organization relegating them to a traditional feminist placement of support aimed at resolving problems and avoiding uncertainty (Hofstede et al., 2010). IVR was significantly higher for company grade officers most probably due to their immaturity as young Airmen, reliable sources of income, and their generational exposure to mass markets, globalization, and technology.

Language proficiency showed significant differences for IDV and LTO; specifically, between those groups who could not speak a foreign language and those that

were fluent. South Koreans who spoke another language fluently indicated more independent qualities, but were also less pragmatic favoring traditional approaches. This was surprising for the simple fact that exposure to language was believed to promote openness and competition not reluctance and restraint. Finally, years lived abroad showed significant differences for IDV, LTO, and IVR. Tukey Post-Hoc tests revealed IDV and LTO scores for those with 1–5 years living outside Korea were significantly different from those who have no experience. IVR scores were very high and significantly different for those with no experience compared to those with more than 6 years' experience.

United States

U.S. data results indicated statistically significant correlation for education level and PD, military rank with PD and MAS, time lived abroad with IVR, and military exchange experience with LTO. IDV and UA were not statistically significantly correlated. The differences in dimensional mean values and their direction and association were unexpected compared to the historical results published by Hofstede et al. (2010). PD was negatively correlated with military rank, which emphasized that the older and more experienced U.S. officers saw less inequality within the organization that did the younger company grade participants. Alternatively, the PD was positively correlated with education level indicating that the more educated a participant was the more they preferred autocratic and centralized behavior. Even though MAS scores were comparatively very low, it was noted that as military rank increased so did the MAS index, which was most probably driven by the competitive nature of military

organizations that thrive on objectives, milestones, and achievement. LTO was likewise positively correlated with exchange program participation, which supports the notion that exposure to other cultures may open up additional avenues for change and growth. The U.S. IVR scores where inversely related to the amount of time that participants lived in other countries. This may have been a symptom of the very rigid and formal environment within the ACC governance structure (ACCR 23-1, 2015).

PD and MAS showed notable mean values differences between officer ranks, were more senior ranking participants favored a more hierarchical and masculine organization (but still well below Hofstede's masculine threshold of 50). Similarly, the majority of U.S. officers with no exchange experience recorded very low LTO scores. U.S. members with 1–5 years of experience living abroad showed higher mean statistically significant IVR scores than those with many more years of experience. Indulgence decreased as officers gained experience working in other countries. Generally, PD and IDV on average increased as officers gained foreign language experience where those who spoke a foreign language at the conversational level scored the highest for PD and the lowest for IDV.

Chapter 5: Discussion, Conclusion, and Recommendations

Introduction

The purpose of this cross-sectional, quasi-experimental study was to understand influences to national cultural value dimension differences between the U.S. and South Korean Air Force staff officers assigned to the ACC Headquarters located at Osan Air Base, South Korea. I measured and analyzed the U.S. and South Korean participant survey responses to understand the relative correlation and differences among the six value dimensions (PD, IDV, IVR, MAS, UA, and LTO). These DVs were compared with staff officer levels of education level, years served in the military, military rank, foreign language proficiency, and total years lived abroad in another country. This study highlighted the impact of cultural exposure and the role that military experience plays on national cultural values.

In Chapter 5, I provide an overall assessment of the key findings as they relate to the existing research, and I offer ideas for further exploration. By identifying the factors that influence national culture values, the hope was that this research would increase awareness among Alliance counterparts and eventually help to establish or improve methods for collaboration. The aim was to improve the U.S. and South Korean policies and procedures promoting readiness and security by improving ACC staff officer working relationships.

Discussion of the Results and Key Findings

This study assessed six independent demographic variables and their influence on six national culture value DVs. There were 144 possible statistical tests to be examined

for this study, of which 72 measured correlation and 72 measured between group differences. Not all variables were statistically significant, but all were accounted for in this study (refer to Chapter 4, Tables 5 through 20 for further details). Determining within-group differences for each of the six cultural dimension scores was important for understanding the effects of rank, military time served, education level, time served aboard, exchange experience, and foreign language proficiency. This study is important in that the findings provide insight into national and organizational characteristics to better understand what conditions trigger or influence group differences. Figure 2 depicts the U.S. and South Korean differences comparing results from the Hofstede et al. (2010) historical database and the test results from this study.
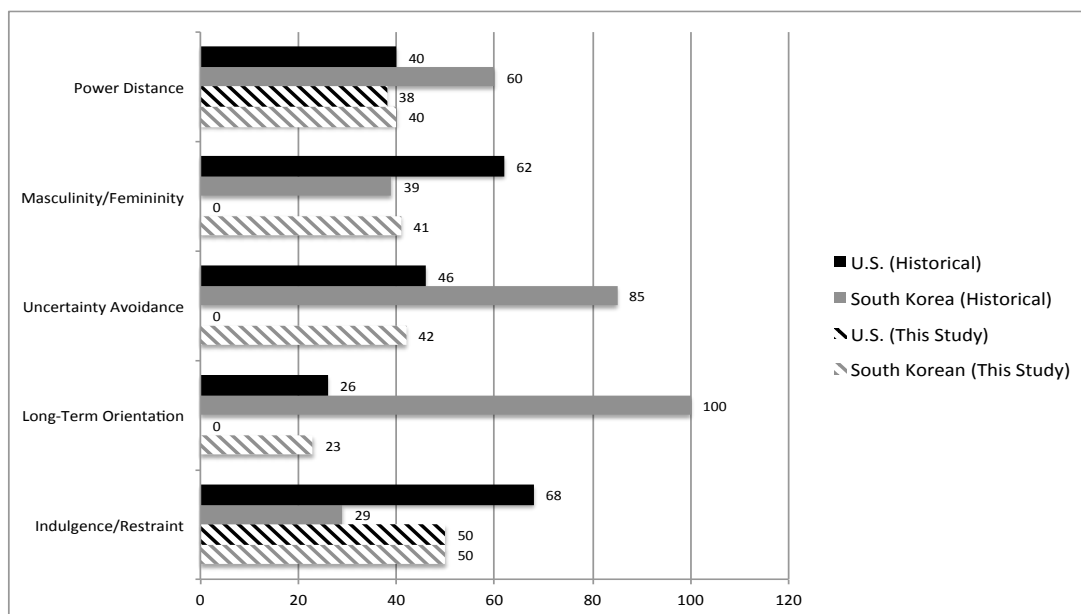

Figure 2. Combined overview of historical Hofstede data and ACC study scores. ACC results indicated less divergence between PD, IDV, LTO, and IVR when comparing historical value differences with those examined in this study. Adapted from "Cultures and Organizations: Software of the Mind" (pp. 152–303), by G. Hofstede, G. J. Hofstede, and M. Minkov, 2010. Copyright 2010 by McGraw-Hill.

Long-Term Orientation and Indulgence

Hofstede's LTO dimension originated from the seminal IBM study addressing the persistence of thrift and attitudes within organizations; LTO looks at the qualities of a society and how they obtain objectives (Hofstede et al., 2010). Those with low LTO scores are interested in immediate gratification, focusing on past events and successes and looking at what can be obtained in the present (Hofstede et al., 2010). In this regard, traditions and rituals are favored over impactful new ideas or change, which can also be problematic when dealing with an unpredictable adversary.

Characteristics of IVR are similar to those of LTO measuring the degree of gratification necessary to fill individual or group immediate desires (Hofstede et al., 2010). Combining these LTO and IVR dimensions is recommended to help understand the interplay between the two variables (see Figure 3 for details). IVR is a relatively new dimension according to Hofstede and not much research is available to assess its usefulness as a separate and distinct dimension, for this reason IVR and LTO have been combined in this discussion (Hofstede et al., 2010). Low LTO South Korean scores appeared to support relatively high IVR scores (> 50) in some cases. South Korean and U.S. LTO results were not consistent with previous research showing $M_K = 100$ and $M_A = 26$ respectively. As reflected in LTO discussion in previous chapters, it was to be expected that IVR scores would follow general South Korean historical norms where senior leaders and commanders expected results to be achieved quickly. U.S. and South Korean officers were generally short-term oriented, which reflected their need for stability, tradition, and immediate gratification (Hofstede et al., 2010). Comparing South

Korean one-way ANOVA Post-Hoc and *t*-test results against general correlation trends

showed that older, educated, and seasoned South Korean officers tended to be more

restrained in their thinking, similar to LTO. Figure 4 highlights the dramatic differences

between ACC scores from this study and Hofstede's previous research enumerating LTO

and IVR data.

In cases where the military is engaged routinely, deterring threats, and providing

an active defense daily, there remains very little incentive to look beyond the current

fight. LTO in this sense runs counter to traditional military culture within the South

Korean Alliance, which is believed to be represented in the LTO survey responses for

this study. Results indicated that the U.S. and South Korean participants were primarily

short-term oriented. There are a number of possible reasons for this unexpected outcome.

As military members who are charged with protecting and defending the nation, the ACC

officers are required to understand current threats and be able to respond quickly to a

North Korean attack. The focus is on building immediate relationships that support clear

and well-defined objectives. As an objective driven endeavor, military activities are

inherently short-term oriented, which is believed to be a driving factor for the LTO and

IVR results.

South Korean company grade officers were 55% more indulgent than the field

graders, while U.S. IVR results were not statistically significant, but showed a decreasing

or converging trend favoring behaviors that were generally short-term and restrained (see

Figure 4). South Korean results from the one-way ANOVA tests indicated a significant

relationship between those with more than 6 years living abroad compared with those

with no experience living outside the country. The difference was approximately double; that is, the South Koreans displayed significantly more indulgent behaviors for those with experience abroad than those without. U.S. responses were very different—100% of the participants in this study had at least 1 year of experience living abroad versus only 26% of the South Koreans. U.S. officers serving abroad less than 5 years reported 23% higher IVR scores than those with 6 or more years. Younger ACC officers were slightly more indulgent with scores decreasing as living abroad experience increased. South Korean officers responded differently, indicating a significant increase in IVR as experience increased. This supports the notion that as Korean officers gained exposure outside of their homeland, they demonstrated more indulgent qualities, which further normalized the mean score variances captured in this study.

Indulgence scores highlighted major differences between South Koreans with no language experience and those who were fluent in a foreign language. South Koreans who had lived abroad for at least 5 years had very low LTO scores as compared to those who had never lived outside of Korea. In a similar fashion, the results of the *t*-test showed that military exchange experience and field grade officers both demonstrated very low LTO scores. U.S. and South Korean responses showed statistically significant results indicating that cross-cultural knowledge (i.e., language ability) reduced IVR scores bringing them more inline with Hofstede's historical research, which was approximately $M = 18$ for Western nations. LTO differences, as seen in Figure 4, were reduced from a historical high of $M_A = 74$ to a low of $M_A = 23$ for this study, a 69% reduction (Hofstede et al., 2010). Generalizing further, by increasing rank, seniority, education level, military

time served, and breadth of experience all tended to reduce IVR and LTO scores for U.S. and South Korean officers overall. Figure 3 demonstrates a reduced variation and significant convergence in LTO and IVR scores when compared to previous research.
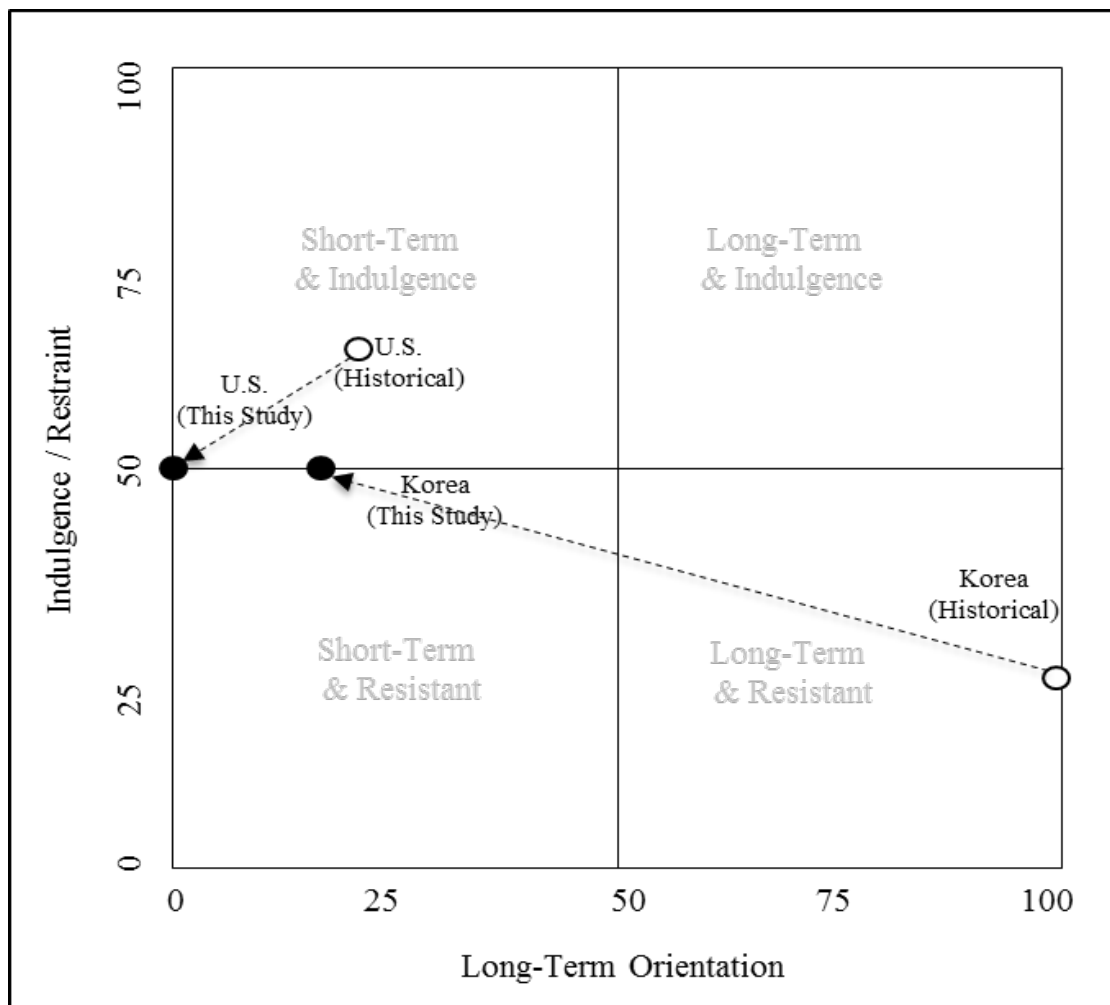

Figure 3. Comparison of ACC and historical LTO and IVR scores. This study discovered significant ACC LTO and IVR convergence and reduced mean variation. Adapted from "Cultures and Organizations: Software of the Mind" (p. 214), by G. Hofstede, G. J. Hofstede, and M. Minkov, 2010. McGraw-Hill.

Uncertainty Avoidance and Masculinity—Femininity

Comparing U.S. and South Korea UA *t*-tests results for military rank and military exchange experience did not indicate a statistical significance. Also, correlation and ANOVA analysis showed weak association and little differences within country samples across the factor variables. According to Hofstede et al. (2010), UA is the driving force behind PD presenting degrees of ambiguity and by extension also introduces anxiety. Experience, exposure to new ideas, and understanding how people address change and vagueness result from learned behaviors (Hofstede et al., 2010). Understanding how members participate and communicate within their respective workgroup is a fundamental focus of this study. The survey questions addressed the level of job stress participants feel and their willingness to follow rules.

UA as an index measured the preference for predictability within each respective society and referred to the level of risk that they are willing to accept. The results of this study highlighted a remarkably low UA for South Korea and an even lower score for the U.S. participants. For South Korea and U.S.' responses the younger and less experienced officers had lower UA scores. Alternatively, officers who participated in exchanges outside their country scored lower than those who did not. U.S. and South Korean scores were similar for all subgroups with only minor differences between military ranks or the level of foreign language fluency. Also showing a variation from the mean, but worthy of comment, were the very low U.S. and South Korean scores for those officers with more than 6 years living abroad and for those with military exchange experience.

Variations in UA suggested differences in individual and group motivation behaviors, which are best explained by comparing them with MAS scores (Hofstede et al., 2010). UA presupposes comfort and a need for rules and organized approaches (Hofstede et al., 2010). Not to be confused by risk avoidance, those scoring low in UA or registering *weak* on the uncertainty scale (i.e., U.S. officers in this study) tended to be less stressed and more resilient according to Hofstede et al. (2010). Likewise, those who also scored low in MAS (i.e., more feminine) preferred to focus on quality rather than quantity, which was a characteristics recorded by U.S. officers and less so by South Korean officers. Figure 5 highlights the differences in historical scores compared to those in this study. The ACC officer core as a whole showed considerable convergence in scores compared to the historical scores presented by Hosftede et al. (2010). U.S. ACC members moved from a masculine and weak score to a feminine and weak uncertainty tolerance, while South Korean members went from feminine and strong score to feminine and weak. The movement of both nations to the lower left quadrant of Figure 5 (feminine and weak) suggests that cross-cultural exposure may have influenced cultural perceptions as indicated by the reduced mean variances recorded in this study.

Masculinity corresponds closely with individualism in that societies are assertive, tough, and focused on success. Feminine societies favor concern for the well being of the group, modesty, and reservation (Hofstede et al., 2010). One-way ANOVA testing measured the U.S. and South Korean between-group differences and confirmed no real MAS mean score variation between sub-groups resulting from foreign language fluency or living abroad. U.S. and South Korean MAS *t*-test scores showed statistically

significant results for military rank, highlighting that field grade officers demonstrated more masculine traits than lower ranking officers. Likewise, U.S. and South Korean MAS was also statistically significant and positively associated with military rank and military time served. Results showed that company grade U.S. officers with less than 5 years experience abroad, no military exchange experience, and moderate language ability were the most feminine. As expected, the more masculine groups were those who were older and had more military experience. As U.S. and South Korean members position increase in seniority, rank, and skill they are rewarded; recognition is part of military culture, which is closely accounted for in Hofstede's et al., (2010) definition of masculinity where achievement is acknowledged based on performance. Thus, in masculine cultures, individuals are more likely to participate in activities within their organizations that will accomplish meaningful goals and are in-line with their own personal values (Park, 2015). South Korean field grade officers were with exchange experience, who never lived abroad, and who spoke a foreign language moderately well were the most masculine.

Perception and status are important military traits necessary to define one's position within an organization. Layering ideas that inform national traditions and rituals with MAS scores helps researchers understand the importance of hierarchy and how groups manage inequality, voice opinion, administer restraint, and make decisions. Study results highlighted that U.S. officers were more motivated by liking what they did (i.e., femininity according to Hofstede) as opposed to the South Korean results, which also identified mostly feminine traits, but favored comparatively more masculine subgroup

responses indicating a preference for competition. Although both the U.S. and South Korean UA and MAS scores were not significant and had comparatively low value scores, the South Koreans were overall more masculine than the U.S. officers. The Korean officers also had less tolerance for uncertainty, which remained essentially unchanged from previous research.

Historically, Hofstede (2001, 2011, 2013) found that those with high UA scores were predisposed to reveal their emotions more frequently than those lower on the UA scale. An interesting finding is the connection between UA and communication, where Jenkins, Klopf, and Park (1991) reported that with regards to low uncertainty, as is the case for both the South Korean and the U.S. officers in this study, they tended to also be more argumentative. Argumentation in this example was a necessary condition for reducing ambiguity and thereby reducing uncertainty. High UA does not mean that these cultures avoid uncertainty directly, it means that they endeavor to remove uncertainty to the max extent before moving beyond it, which has the tendency to slow decisions and stall progress. An unrelated and potentially unexplainable relationship demonstrated weak-moderate positive correlation between UA and education level for South Korean members; as education level increased the relative willingness of members to accept ambiguity and uncertainty decreased. This phenomenon may have roots in the military hierarchy were older more experienced members were accustomed to having clear guidance and information for making decisions; this in effect may be related to organizational seniority and therefore to those with higher levels of education level. U.S. and South Korean officer UA results within the ACC showed that both cultures accepted

uncertainty to much greater degree than previous studies, with the U.S. being the most accepting, $M = 0$.

Another aspect of UA at play within this study was the level of acceptable predictability within social settings or organizations. U.S. and South Korean UA scores were relatively low compared to historical results shown in many of Hofstede's studies. The most recent published UA scores comparing the South Korean and the U.S. general population indicated 85 and 46 respectively (refer to Figure 4). In Hofstede's (2013) studies the sampling frame was defined broadly compared to the specificity offered in this targeted South Korean-United States military study. Most importantly, the military specific samples obtained in this study and the close mean score differences between countries and within subgroups highlighted what can happen when closely matched samples are used. It can be argued that due to the 63 year ACC history, South Korean and U.S. UA and MAS results contributed to the convergence qualities reported in this study.
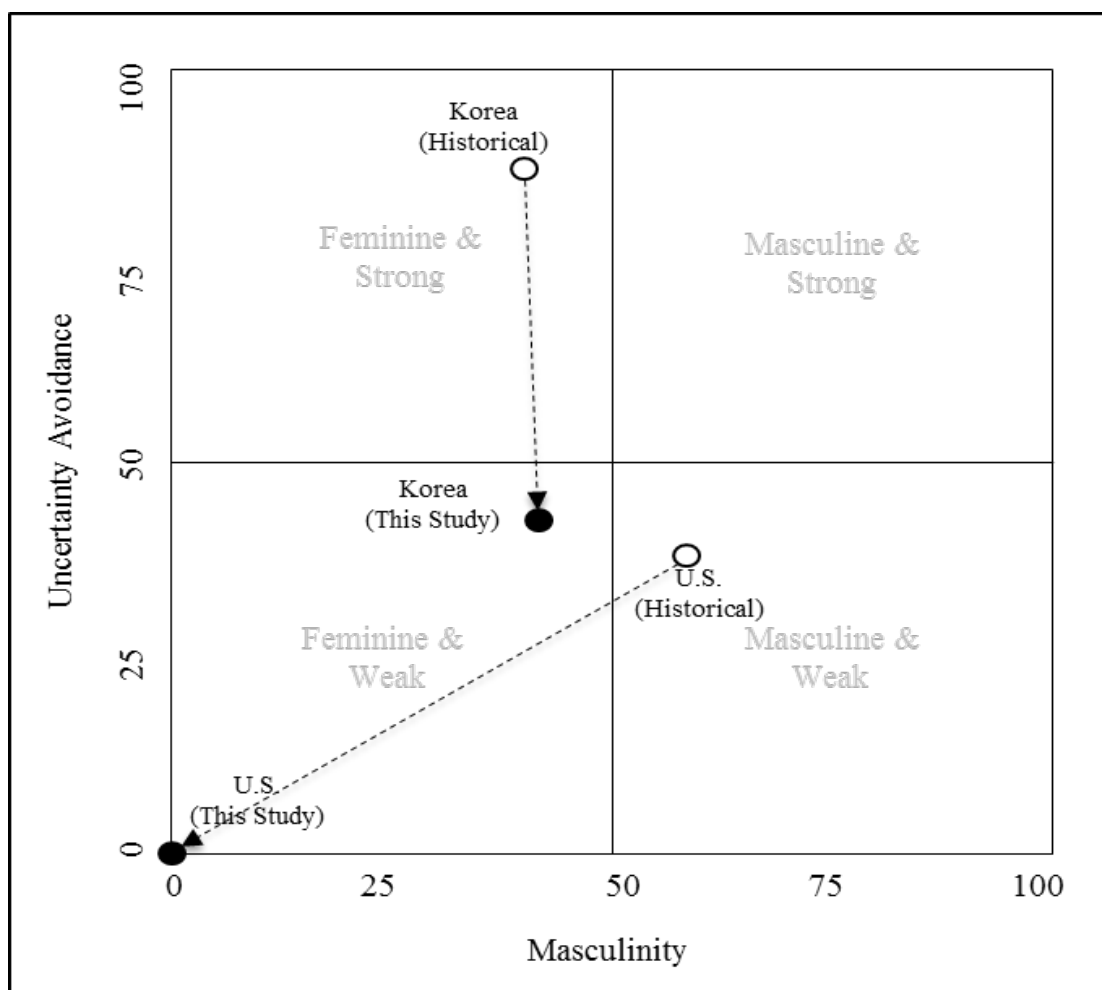
Figure 4. Comparison of ACC and historical MAS and UA scores. This study discovered significant divergence and increased variation between study and historical mean scores. Adapted from "Cultures and Organizations: Software of the Mind" (p. 218), by G. Hofstede, G. J. Hofstede, and M. Minkov, 2010. McGraw-Hill.

Individualism—Collectivism and Power Distance

Survey questions addressing individualism and collectivism were designed to understand how important working relationships were to one's ideal work role or job. Hofstede et al. (2010) emphasized in previous studies that individual societies tended to focus on tolerance, noncompetitiveness, trust, and contentedness. This approach emphasized voluntary relationships that exist between group members (House, Javidan,

Dorfman, & Gupta, 2004). Hofstede's (1999, 2001) other studies revealed that collectivist societies favored obedience, respect, and loyalty, which was also very much aligned with elements of PD and uncertainty avoidance. Each of the four survey questions aligned with PD were intended to recognize the way that military members understand their work environment, and the way that respondents perceive their reality versus the way that they wish their reality to be. This is important for country-to-country comparisons as those on the low end of PD engage in consultative relationships, while those on the opposite end tend to avoid disagreement or engagement with superiors.

South Korea IDV scores were statistically significant and positively correlated with living abroad, language proficiency, and military exchange program participation. These results support the general assertion that by increasing exposure to other national cultures may also induce greater individualistic qualities. U.S. exchange program experience and foreign language proficiency were inversely related to IDV; U.S. participants became more collective as they gained more cross-cultural exposure. The overall South Korean and U.S. IDV mean scores for this study were very low, $M_K = 13.82$ and $M_A = 22.35$ respectively. Tukey Post-Hoc testing confirmed that the South Koreans who were fluent in another language and those who had more than 6 years living in another country scored 250% higher in IDV than those with no language experience or time abroad, which further supported the notion that cross-cultural experience may influence convergence in some cases.

South Korean PD scores where almost equal to the U.S. scores, and that previous research by Hofstede indicated that South Korean PD scores were moderately higher than

the United States (Hofstede et al., 2010). The higher the PD score the more unequal the relationship was between subordinates and superiors. As overall mean scores decreased so did he sub-groups scores as barriers to engagement were also reduced. PD is also an important dimension when it comes to building productive and flexible U.S. and South Korea working relationships. Although military work roles and seniority are hallmarks in military culture, in relatively low PD countries like the United States there is much more autonomy and less dependence on consultation. In higher PD countries, subordinates are unable to make decisions, which drive a high level of interdependence between leaders and followers. According to Hofstede et al. (2010) the differences in U.S. and South Korean PD and IDV are what distinguish these two cultural from one another.

Overall, the data showed a statistically significant relationship between IDV and exposure to other cultures, either through language training or immersion. U.S. and Korea IDV scores were significant ($p > .05$) resulting in little change compared with historical South Korean IDV data, and a dramatic shift in U.S. results, which Hofstede et al. (2010) reported as very high on the individualist scale (refer to Figure 6). South Korean participants compared to their U.S. counterparts registered equal PD scores and very close IDV scores (both cultures showed little hierarchical preference and were group/team oriented). To summarize, the study recorded the following general comparative characteristics:

The South Korean participants in this study had overall less cross-cultural experience; less education; and, were younger in rank (Lieutenant to Captain). The population sample also had less than 10 years of military service and had no experience

living outside of South Korea. Very few South Koreans attended a professional military exchange program, and very few spoke a foreign language.

The U.S. participants had a variety of cross-cultural experience, more education, and were older in rank (Major to Colonel). The population sample had more than 16 years of military service, and all had experience living and working in a foreign country. Few Unites States' members attended a professional military exchange program, and very few spoke a foreign language.

Barriers arise between in-group and out-group social structures where collectivism favors group harmony and purpose over objective accomplish, which favors the South Korean responses in this study. Earley (1997) suggested in a well-known study comparing individualistic results between the Chinese (collectivists) and U.S. (individualists) that performance and organizational effectiveness is influenced by the predisposition of their respective group cultural dimension. Earley (1997) also demonstrated that individual and group performance was closely aligned with IDV scores. For example, Chinese participants scoring high on the individualism scale tended to achieve similar tests results as their U.S counter parts. This study demonstrated that national culture related behaviors can be influenced, and that those influences can result in reducing cultural value differences. More importantly, these value changes follow similar IDV patterns as defined by Hofstede et al. (2010) regardless of what country one lives in.

This research proposed that through cultural exposure, enculturation, interaction, and training, differences between U.S. and South Korean national value dimensions

would converge. The South Korean results indicated that increasing cross-cultural

engagement through training or formal iterative military experiences does not by

themselves influence PD or IDV. The U.S. results showed compelling evidence

suggesting that the more cross-cultural experience ACC officers gained the less

hierarchical (less PD) and the less individualistic (i.e., more collective) they became. One

reason for the sizable IDV change from Hofstede's original data can be explained by the

immersive South Korean military environment that U.S. officers are accustomed to

working in daily; they may have over a period of time adopted localized South Korean

behaviors that were identified in this comparative analysis. Overall, PD scores for this

study were almost identical ($M_K = 39.95$ and $M_A = 38.24$), and were also very close to

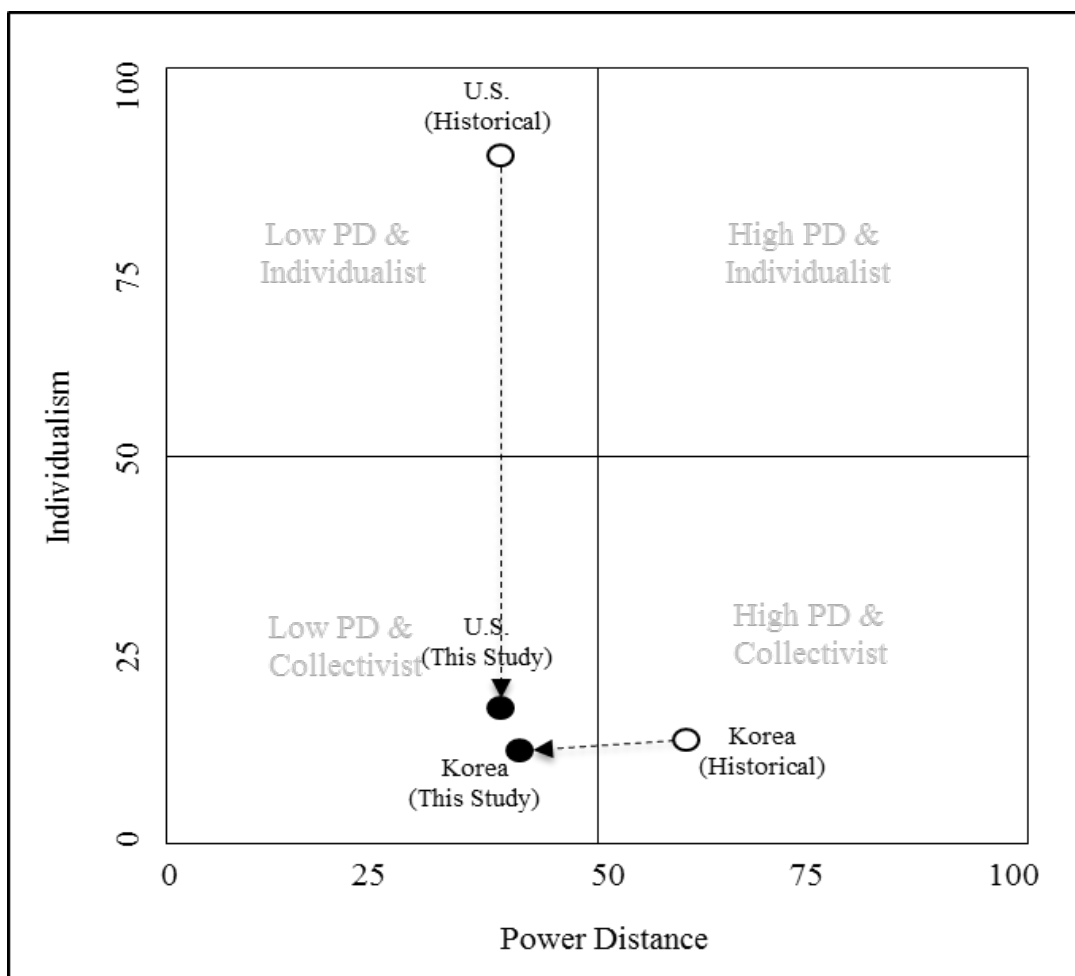Hofstede's results from previous studies (see Figure 5 for comparison).

Figure 5. Comparison of ACC and historical PD and IDV scores. This study indicated significant convergence and decreased variation between study and historical mean scores. Adapted from "Cultures and Organizations: Software of the Mind" (p. 103), by G. Hofstede, G. J. Hofstede, and M. Minkov, 2010. McGraw-Hill.

Limitations

This study measured individual responses, tabulated scores, and transformed them into group-level results in an attempt to understand the nature of culture well above the individual level. The challenge of measuring and applying results of this kind was identified by Grenness (2012) and Yoo et al. (2011) who highlighted the limitations noted in the ecological fallacy. This approach describes the problems with collecting, studying, and operationalizing cultural data from one level to another. Yoo et al. observed that cultural variances between organizations are positively correlated with group conflict, but that national culture differences can mitigate responses to favorably reduce conflict among groups. Hofstede et al. (2010) and Hofstede and Minkov (2013) understood that the results of national variation and the accompanying analysis must be managed within the context of a particular group from which the data was derived. Hofstede et al. makes no claim that cross-cultural lessons should be applied below the intended level of data collection. As was explored in this study, national, group, and individual level assumptions are all important for elements for understanding how to effect cultural change to reduce dimensional variance.

Although a key aspect of this study aimed at comparing the U.S. and South Korean dimensional differences, underpinning those differences are individual behaviors, experiences, and beliefs. These elements of culture explored in this study are important for understanding how group culture is influenced. Focusing on the most important aspects of culture at the individual level addresses organizational relationships and group behavior dynamics, but also challenged the notion of the ecological fallacy. This

approach requires accepting that the limited data can be used to draw conclusions for further inferential analysis (Donthu & Yoo, 1998; Grenness, 2012; Sharma, 2009; Soars et al., 2006). Ecological fallacies continue to be a concern for all social science researchers, because of the inherent validity and reliability errors associated with broad national and regional research efforts.

Study results were useful in addressing variable relationships specified in each of the research questions; however, the statistical assessments may have been inappropriate in some cases due to the reasonably small sampling frame. Working only with ACC organizations the limited sampling frame could have affected the overall power of the test, thus hindering generalizability of the assessment. In some cases, results presented questionable linearity between groups, which may have also affected the analysis model. For example, the effect of living abroad on power distance and long-term orientation were borderline nonlinear within their subgroups. The study capitalized on identifying these marginal values in response to the number of years officers lived outside of the country along with a number of other key indicators discussed in previous sections. Keeping track of these psuedo-outliers stressed the significance of these significant data points.

While not many variables were affected in this way, the low F-ratio(s) in many of the tests pointed to low power (1 - β); again, this was primarily due to the limited sample size. Although some relationships were not statistically significant, I included the results to demonstrate the value of cross-cultural experience (positive and negative correlation) and the benefits of combined training and education associated with cultural immersion

(i.e., learning a new language or participating in a professional military exchange program). A chief strength of this study was the use of primary data that was collected on sight and in the native tongue of both South Korea and the U.S. participants. This unique access allowed for the collection and evaluation of very specific perspectives; an endeavor that was truly unique and important for gaining study approval from the South Korean Defense Minister. While the sample was reasonably large in comparison to the total number of officers assigned to the ACC, statistical power was low. The study did not utilize random sampling, which also limited the strength and validity of the overall results.

Recommendations and Future Research

In-line with Hofstede's (2011) theory, it is believed that differences between national cultures are associated with the transfer of knowledge; that is, although deeply rooted, elements of culture can be altered. Applying Hofstede's approach provides researchers a methodology to observe how societies are different. This study assessed the influence of respondent demographics on group level national values. This study was also supported by Yoo's et al. (2011) research demonstrating how understanding the various effects of culture could shape group differences, and that individual responses highly influenced these differences. Future research in this area may consider assessing culture changes over time using pre and posttest methods. Additionally, a future qualitative or mixed methods study are needed to explore nonverbal trends and behaviors to evaluate relationship ideas between subgroups to understand their effects and their overall impact on group collaboration. These assessments would better help scholars and practitioners

understand cultural attitudes when working together within the broader United States-Korea Alliance.

According to Hofstede et al. (2010), there is a close linkage between power distance and uncertainty avoidance regarding organizational function and performance. A closer look at the ACC from an organizational perspective that is separate from national culture would help researchers and ACC leadership understand how power within organizations can affect the rules and processes needed to meet organizational goals (Hofstede et al., 2010). That is to say that the relationship between PD and UA and a country's position depends on the "minds of people" and how problems are solved (Hofstede et al., 2010, p. 303). The study results noted that national culture can impact organizational learning and that broad experiences and exposure to other cultures can reduce group barriers.

Even though the United States-Korean Alliance has been thriving for more than 63 years, more effort could be taken to address the effects of cultural variance simply by investing in cultural awareness programs. Specifically, ACC should consider providing an immersive intercultural environment to provide language education, history, and customs and courtesies related training. Additionally, besides classroom instruction, it is advised that the ACC leadership also develop approaches to increase the knowledge of cross-cultural military understanding, traditions, and rituals through engagement strategies; the focus should be on counterpart-to-counterpart relationships. Barriers to group collaboration can be mitigated by understanding how other cultures think, feel, and

act. The following recommendations may empower the ACC to improve cultural learning:

- Provide opportunities for formal education programs

- Develop localized culture education workshop for U.S. and South Korean members

- Provide English and Korean language training and history lessons

- Provide greater opportunities for military exchanges beginning at the Captain level and periodically during an officer's career

- Organize ACC staff workspaces and staff activities (organized by directorate roles and responsibilities) to accommodate and complement day-to-day engagement activities

- Provide team building opportunities offsite to enhance working relationships and productivity

To improve validity, future research of this kind would be well served by expanding the sampling frame to include other military services such as the Army and Navy. Differentiating how military training programs impact culture would inform education and military assignment investment decisions. Expanding the data collection sampling frame and size would improve external consistency and reliability. A larger sample and overall dataset would allow for greater assessment options and the development of better analytical models to generate a complete list of findings.

Cultural convergence and transferability. Hofstede's overall premise is that cultures are steadfast and difficult to change, which is what makes them useful for comparative studies; this idea of divergence promotes the assumption that national cultures will remain separate from one another. It can then be imagined that there are fundamental differences between the U.S. and South Korean officers. However, as discussed in Chapter 2, there are difficulties in classifying a culture simply based on arbitrary borders and physical location. The U.S. and South Korean officers assigned to the ACC each come to their positions with unique experiences, racial backgrounds, and perhaps different cultural upbringings (Jackson, 2011). Ideas about cultural convergence bring together a variety of interpretations and assumption that all cultures should follow the same path. According to Jackson (2011), as societies change, they embrace new concepts, ideas, and ways of thinking, which also evolve one's perspective. A primary outcome of this study was that Since the rituals and behaviors that define a culture are inherently learned, culture can be transformed depending on the influences involved.

Divergence maintains the a priori assumption that national cultures will affect group "values, beliefs and attitudes" despite other mechanisms of control (Jackson, 2011, p. 7). Culture then is not transient but deeply ingrained and difficult to change (Hofstede et al., 2010; Schwartz, 1999). Convergence and divergence theories do not seem to recognize learning, progression, and growth that occurs during group interactions as was evaluated in this study. Another approach might be to consider the cultural characteristics inherent in a particular cultural dimension. As was discussed in this study, it appears

more beneficial to understand the nature of cultural interactions, and their effects, rather than debate the significance of each theoretical approach (Jackson, 2011).

Implications for Social Change

The U.S. and South Korean social engagement activities are often practiced through political and military exercises and conferences where changes are achieved through community involvement, advancing human rights, and important regional partnerships (Ji, 2011; Sharp, 2010). Developing attitudes that lead to a peaceful reunification under a free democracy has been a familiar and welcomed measure of real success on the peninsula (The White House, 2009, p. 2). The results of this study are intended to inspire the U.S. and South Korean ACC members, leaders, and defense professionals to be better ambassadors for peace, capitalize on existing organizational stability, and nurture focused partnerships within the Alliance. Social change can be a difficult phenomenon to predict and can only truly be evaluated over time and through a preexisting model from which to gauge before and after success or failure. Ultimately, the outcome of any activity as it relates to social change will be viewed differently through many lenses, so improvements that appear socially better by one person, may seem trite or insignificant to another.

The U.S.' concentrated focus, interest, and steadfast support for South Korea and its partners across the broader Asia-Pacific region is a testament to its commitment to cultivating and executing its foreign policy as it works to secure the country. The research findings showed PD, MAS, and IDV resulted in a positive association for those living abroad, speaking another language, and obtaining military seniority. Similarly,

MAS and LTO were positively correlated with both education level and military time served. The association between these variables reinforces the importance of community discourse, communion, and investment in education and professional development. The results of this study support ideas for improving a professional military cadre of leaders devoted to combating tyranny while strengthening democracy.

Conclusion

Culture is a shared phenomenon that depicts behaviors inclusive to the environment from which it was learned (Kim, 2015). This study developed and tested the relationship between national culture and the influences of military cross-culture experiences. This study was able to capture approximately 75% of the available ACC officer force assigned to the each of the national headquarters. This comparatively robust data set was able to obtain participant responses and examine their influences on national-level dimensions. The study showed that PD, IDV, MAS, UA, LTO, and IVR were all statistically significant as they pertained to at least one of the independent variables presented.

Schein's (1994) application of convergence theory explained that as nations grow and mature economically, their organizations will also become more similar. Similarities evolve over time as societies adjust to the surrounding environment (Naor et al., 2010; Sarala & Vaara, 2010). Hence, it is commonly understood that organizations can and do alter the behavior of people by undermining the deeply rooted nature of national culture (Naor et al., 2010). These similarities were most likely due to the close integrated United

States-Korean work environment and the parallel need for information necessary to facilitate decision making and appease senior leaders.

The use of primary data was a key element of this study and satisfied the requirement to compare country-level groups matched by function, organization, and general behavior (Hofstede & Minkov, 2013). The principal disadvantage of this approach was reaching or accessing the required number of participants during the collection period. This study fills an important gap in cultural research, as there are no published studies addressing United States-Korea ACC national culture relationships.

A review of Hofstede's (1984, 2001, 2011) national culture value dimensions makes possible a data-driven methodology and analysis. Statistically centered methods provided for a multitude of possibilities, which could also be used to help social scientists connect more intimately with the data (Hofstede et al., 2010). However, to be useful, Hofstede (2011) also recognized that national culture value measurement methods must address individual changes and stimuli within a country's borders. Likewise, because different beliefs are dynamic and ever changing, dimensional values must be applied both within and across national lines to understand their meaning. Understanding what influences these groups and the individuals within the groups is needed to effect change (Donthu and Yoo, 1998; Grenness, 2012; Sharma, 2009; Soars et al., 2006; Yoo et al., 2011). To address this concern, Hofstede argued that studying within-country variables could provide useful data through a modular empirically based framework. Hofstede further highlighted that because the rate of change within national cultures is so slow, the

approach is suitable for understanding and operationalizing culture with like comparative

qualities (Hofstede et al., 2013).

In Chapter 5, I discussed the results and findings of the research, study

limitations, future research recommendations, and potential areas for social changes. The

study highlighted substantial cultural differences between both the group populations

within countries and the between the countries themselves. Poor cultural awareness can

add to organizational efficiency problems and reduce engagement opportunities between

component members. By understanding how variations are inspired can improve and

guide new policies and interventions to reduce cultural differences and improve working

relationships. This approach introduces areas for policymakers to implement new

programs to address cultural engagement, combined training, and overall socialization to

assist in prioritizing approaches to building Alliance cohesiveness and community

partnerships.

This study was centered on developing a community of collaboration to promote

group efficiency and better communication. The research findings could assist in

maintaining or even creating an environment of trust and goodwill among Alliance

partners to provide better partnerships between the Asia-Pacific nations. The expectation

is that the U.S. and South Korean staff officers assigned to the ACC will learn from this

study by developing new programs and policy guidelines. The findings should help grow

and sustain existing engagement policies, promote good governance, and contribute to an

already strong national Alliance that recognizes the importance of security by building

partnership capacity. The research recommendations should be viewed only as a starting

point to establish an environment to help the U.S. and South Korean officers develop closer relationships. Understanding how each respective culture can affect group behavior is an important finding of this research (i.e., the way officers think, feel, and act). The more enduring aspects of social change will allow ACC leaders to consider new approaches to enhance communication, trust, and collaboration and engender better collaboration at the lower levels. The research findings contribute to the study's overarching focus that through attentive investment in cross-cultural experience, all Alliance members will benefit in some way. Most importantly, actions by ACC leadership informed by the outcomes of this study will be able to establish a lasting atmosphere of peace and goodwill.

The ACC must maintain regional security in response to a burgeoning North Korea resurgence. For the United States and South Korean Alliance to be prepared, leaders must take proactive steps to address the comparative cultural disconnects identified in this study. Attention should be placed on how cultural dimension differences are influenced, which can help component leaders understand where to invest critical resources.

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Appendix A: 7th Air Force Study Collaboration Agreement

Letter of Research Cooperation & Consent
연구 협력 및 동의서

Purpose:
목적:

The purpose of this study is to increase cultural awareness and improve collaboration between Air Component Command Headquarters staff members. This study will document U.S. and Korea Air Component Command Headquarters national culture values, as well as illuminate key areas of cultural differences based on value variances as determined by the Hofstede and Minkov (2013) dimensions of national culture value theory. This study will help to identify where Air Component Command improvements in coordination and collaboration are needed most. This study aims to identify which value dimensions offer the widest areas of divergence with an eye toward understanding how national culture differences affect working relationship, trust building, and teamwork. Understanding how cultural values influence behavior can identify methods for coping, as well as illuminate areas of inefficiency.

본 연구의 목적은 문화적 인식을 높이고 공군구성군사령부 참모 간 협력을 개선하는 것입니다. 본 연구는 Hofstede 및 Minkov (2013) 민족 문화 가치 이론의 차원에 밝혀진 가치 차이를 기반으로 한 문화 차이의 주요 영역을 조명해줄 뿐 아니라 한-미 공군구성군사령부의 민족 문화 가치를 문서화할 것입니다. 본 연구는 공군구성군사령부 내 협조 및 협력이 가장 필요한 곳을 식별하는 데 도움이 될 것입니다. 본 연구는 문화 차이가 업무 관계, 신뢰 구축 및 팀워크에 미치는 영향을 이해하려는 눈으로 어떤 가치 차원이 폭넓은 영역을 제공하는지 알아보는 것을 목표로 하고 있습니다. 문화 가치가 어떻게 품행에 영향을 미치는지 이해하는 것은 비효율 영역을 조명해줄 뿐 아니라, 가치 차원 전반에 걸쳐 대처하는 방법 또한 식별할 수 있습니다.

Methodology:
방법:

The distribution of an electronic survey will be given to USAF and ROKAF staff officers assigned to the Air Component Command Headquarters.
공군구성군사령부에 예속된 한-미 참모 장교에게 전자 설문 자료 배포

- A 44 question on-line survey will be administered to U.S. and Korean Air Component Command staff officers. The survey will measure national culture value differences as described by the Hofestede and Minkov's Value Survey Module (VSM) 2013.
- 한-미 공군구성군사령부 참모 장교에게 44 개의 질문이 포함된 온라인 설문지를 나누어 주며 본 설문은 Hofestede 및 Minkov 의 '13 가치 분석 설문 모듈에 정의된 대로 민족 문화 가치 차이를 측정할 것임

- The Seventh Air Force and Air Force Operations Command Chiefs of Staff (CS) or their designated representatives will distribute the survey via email to all Air Component Command officers assigned to the headquarters.
- 공군작전사령부 및 미 7 공군의 각 참모장 또는 지정 대리인은 이메일을 통해 모든 예속된 장교들에게 설문 링크를 전파

- The survey will take approximately 15 minutes to complete.
- 본 설문은 약 15 분 정도의 시간 소요

I understand that participation in this study is voluntary and at the discretion of each individual participant. I understand that all survey responses will be anonymous; there will be no tracking of individual responses or recording of names or other personal information. I agree that regardless there will be no punitive or administrative impact to any individual participant as a result of their participation in this study.
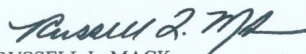
본 연구의 참여는 자발적이며 각 참가자의 재량에 따르는 것을 이해합니다. 모든 설문 및 면담 답변은 익명으로 기재되며 개별 응답, 이름의 기록 또는 타인의 개인 정보 추적은 없을 것입니다. 또한, 면담 답변과는 관계없이 본 연구 참여에 대한 결과로 각 참가자에게 처벌 또는 행정의 영향이 미치지 않을 것입니다.

Upon completion of this study an executive summary and out-brief of findings and recommendations will be provided to Seventh Air Force and Air Force Operations Command leadership.

연구 완료 시, 결과 및 건의사항을 포함한 총괄 요약은 공군작전사령부 및 7공군사령부 지휘부에 제공될 것입니다.

Charles M. Harding Jr. – This study is approved; you are authorized to distribute survey material to Air Component Command headquarters members assigned to Seventh Air Force and the Air Force Operations Command.

찰스 M. 하딩 주니어 – 본 연구는 승인되었습니다. 귀하는 공군작전사령부 및 7 공군에 예속된 공군구성군사령부 요원에게 설문 자료 배포를 인가받았습니다.

RUSSELL L. MACK
Brigadier General, USAF
Vice Commander
러셀 L. 맥
미공군 준장
제 7 공군 부사령관

JAE-KI HONG
Major General, ROKAF
Deputy Commander, AFOC
홍재기
한국공군 소장
공군작전사령부 부사령관

Appendix B: South Korean Ministry of National Defense Study Approval (Korean)

인쇄 : 김인국 / 정훈공보실 (2015-05-07 16:14:11)

튼튼한 안보를 구현하는 국방3.0

국 방 부

수신 공군작전사령관(정훈공보실장)
(경유)
제목 설문조사 지원 승인(시달)

    1. 관련근거
      가. 국방부훈령 제1725호('14.11.28.) 정훈·문화활동 훈령
      나. 공작사 정훈공보실-979(2015.3.31.) 미 7공군 한·미 문화 차
이 연구 설문조사 승인 요청

    2. 위 관련근거에 의거, 미 7공군에서 요청한 공군 구성군사령부 연
합업무 개선 관련 한·미 문화 차이 연구에 필요한 설문조사 지원을 아래와 같
이 승인합니다.
      가. 설문내용 : 한·미 문화차이가 한·미 연합과 공조에 미치는
영향 조사
      나. 설문대상 : 공군 구성군사령부 소속(韓 공군작전사령부, 美 7
공군) 소위~대령
      다. 설문방법 : 온라인 설문

    3. 협조 및 조치사항
      가. 미 7공군과 협의, 설문대상 선정 및 설문지원
      나. 설문 지원 후, 설문 결과를 한·미간 연합업무 개선에 최대한
활용

붙임 : 설문지 1부. 끝.

Appendix C: South Korean Ministry of National Defense Study Approval (Translated)

DEPARTMENT OF THE AIR FORCE

HEADQUARTERS SEVENTH AIR FORCE (AIR FORCES KOREA)

Ministry of National Defense

Officer of Public Affairs

To: AFOC Commander

Title: IRB Approval for Support of Survey

1. Related reference
    a. TI&E and Cultural Activity, MND Instruction 1725 (28 Nov 14); IRB endorsement
    b. AFOC TI&E, PA Directorate – 979 (31 Mar 15) Requesting approval of conducting a survey regarding cultural difference between US and ROK by the 7 AF (USAF)

2. IAW stated references above, the request for supporting the survey on studying cultural differences between US and ROK related to improvement of ACC cooperation is approved as follow:
    a. Contents of survey: surveying the influence of cultural difference between US and ROK on cooperation and combined efforts between US and ROK
    b. Subjects of survey: 01- O6 in ACC (AFOC and 7 AF)
    c. Method of survey: hardcopy and online survey

3. Cooperation and Measures
    a. Discussion with 7 AF, selection of subjects of the survey and survey-related support
    b. After the survey, maximum utilization of survey result to improve the cooperation between US and ROK