IMPACT OF BICULTURALISM ON SELF-EFFICACY AND COGNITIVE FLEXIBILITY OF JAPANESE ADULTS

BY

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A Dissertation submitted to the Faculty of Claremont Graduate University and San Diego State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education

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APPROVAL OF THE REVIEW COMMITTEE

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Yujiro Shimogori as fulfilling the scope and quality requirements for meriting the degree of Doctor of Philosophy.

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ABSTRACT

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Studies on the relationship of biculturalism and psychosocial outcomes are still in the fledgling stages. Given the limited attention to bicultural adult, the rationale behind the study is that bicultural individuals will be exposed to more demanding and novel situations, and thus, will possess more effective coping skills and interpersonal flexibility. The development of bicultural identity will not only entail the development of the intricacies of the individual’s heritage culture, but the development of another cultural identity that may entail a vastly different culture.

This study examined the relationship of biculturalism with cognitive-flexibility and self-efficacy of Japanese bilingual adults. Participants (n=210) were Japanese and English bilinguals ranging between 18 to 65 years old living in Japan or the US. All participants were alumni of international schools in Tokyo, Japan. While biculturalism was operationalized by modeling after the abbreviated multidimensional acculturation scale, an exploratory factorial analysis was performed to find the best item loadings to create a composite variable that represented biculturalism. Numbers of years working in Japan and in the US were unique independent variables used in this study. The findings points to a
positive moderate correlation of biculturalism with cognitive-flexibility and self-efficacy. A linear multiple regression analysis was conducted and number of years working in the US was a strong predictor. A two-way ANOVA showed that individuals working more years in the US showed a significantly higher level of cognitive-flexibility and self-efficacy than individuals that worked less in the US. Lastly, individuals’ perceptions of one’s biculturalism and the substantive experiences were associated with cognitive-flexibility and self-efficacy. The implication of the study suggests that being able to navigate and function in Japan and the US may be related with the development of cognitive-flexibility and self-efficacy.

keywords: acculturation, bicultural, bilingual, self-efficacy, cognitive flexibility, Japanese
DEDICATION

To my mother, Tomoko Shimogori and my late father, Mamoru Shimogori.
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CHAPTER 1 - INTRODUCTION

This dissertation reports on the results of a cross-sectional study that investigated the effects of bicultural identity development of 210 Japanese alumni of international schools in Japan who had working experience in Japan or in the U.S. The first chapter of the dissertation presents the background, the purpose and significance of the study, research questions, overview of the methodology, and the study assumptions. The first chapter concludes by defining key terms used in the study.

Background of the Study

Over the advancement of science and technology and the demands of international relations, interdependency amongst countries has increased. By 2008, internet users reached 1.4 billion with the growth rate reaching 290% from 2000 to 2008 (Zhao, Lu, Huang, & Wang, 2010). By using worldwide online community services such as Facebook, Twitter, Bebo, YouTube, or Flickr, individuals can now connect and share private or public information ubiquitously to anyone throughout the world. Even scientific discoveries are a collaborative effort. In 2012, the discovery of the Higgs particle or also known as the “God Particle” was only possible through development of the Large Hadron Collider by an array of international scientists and manufacturers (“Large Hadron Collider,” 2012). Moreover, interdependence and mutual reliance in international politics and economics is also evident. Increased productivity is witnessed more on behalf of economic cooperation through implementation of international agreements such as the North America Free Trade Agreement (Mayer, 1998). The Office of the United States Trade Representative has also been negotiating with Pacific-rim countries on a new trade
agreement, the Trans-Pacific Partnership (Lewis, 2010). The need for global cooperation and collaboration in the work force has never been more pressing.

The urgencies to improve interpersonal skills in the educational setting in the U.S. are likewise imperative. According to a report by the U.S. Department of Education (Aud & Kewal Ramani, 2010), a total U.S. population of approximately 310 million in 2010, 200 million were white, and non-white of culturally and linguistically diverse persons comprising 38 million black, 49.7 million Latino/Hispanic, 14.1 million Asian, 0.5 million Native Hawaiian/ Pacific Islander, 2.4 million American Indian/ Alaska Native, and 4.7 million of mixed races. In 2005, 2 million undocumented immigrant children were reported living in the US. In 2008, 15% of the US population was Latino/Hispanics. California’s population, Latino/Hispanics constituted 37% of the state’s population which was the second highest percentage in the nation after Arizona of 46% (Holdaway & Alba, 2009). During the 2001 - 2002 school year, there were over 6 million K - 12 students of which over 200 thousand were recent immigrant students and about 1.6 million were English Language Learners (ELL). Immigrants enrolled in the California public schools during the 1999 to 2000 period came from more than 175 countries and spoke 56 different languages (Gershberg, Danenberg, & Sanchez, 2004) with Spanish constituting over 80% of the first language of ELLs (Gandara & Rumberger, 2009). The educational sector of the US recognizes an increasing diverse student population that is requiring instructional strategies to promote understanding of each other despite racial and ethnic differences.

In contrast to the ethnic diversity of the US, Japan due to its insularity, has been generally perceived to be unaffected by racial heterogeneity. Japanese have been traditionally characterized as homogenous, rather than diverse with little ethnic
divisiveness. Education has played a pertinent role in shaping national uniformity (Reischauer, 1977). However, Japan’s cultural homogeneity is indubitably being affected by an increasing influx of foreigners. According to a study conducted by the Ministry of Education in 2012, and the Ministry of Foreign Affairs, Japan (2012), ethnic diversity in Japan has increased at an unprecedented rate. The study reported that of the Japanese population of approximately 127 million, languages of foreigners in Japan totaled 64 of which 77.4% consisted of Chinese, Portuguese or Spanish. The total number of registered foreigners in 2002 was 1,851,758 which was a 45% increase from the numbers a decade ago (Tsuneyoshi, 2004). Tsuneyoshi reports that there is an internal internationalization that is growing in Japan which triggers the formation of a new social order. Racial heterogeneity is becoming an increasing phenomenon in Japan. More people from abroad are attending primary and secondary schools as well as colleges in Japan. Even job sites are permeated with non-Japanese people.

In contrary to the diversification, the US and Japan are implementing policies and practices that counter globalization and in effect are balkanizing communities. For instance, the implementation of Proposition 227, a law that was passed in California in 1998, mandates English-Only instruction to all students in public schools (Gandara & Rumberger, 2009). With the implementation of Proposition 227 newcomers or students, assessed as Limited English Proficient, unless a waiver is requested by parents, are placed in a Structured English Immersion program (SEI) intending to eventually mainstream or, place students in the regular English Language Program (Gershberg, et al., 2004). In reality, identification as an ELL often times a permanent program placement from which few students find an exit. Followed by No Child Left Behind Act of 2001, ELL students were
also required to perform at a proficient level in English as measured by standardized tests. Despite such legislative efforts at improving ELL performance, a contradicting silhouette begins to surface as evidenced by the California educational data generated by the Civil Rights Project of Harvard University (2005). Furthermore, the Cumulative Promotion Index (CPI), a more accurate method of estimating graduation rates than the flawed National Center for Education Statistics (NCES) reports that only 57% of African-American, 60% of Latino/Hispanic, and 52.2% of Native American graduated from high school in California in 2002. Students in the US are not only losing their ethnic identities, those that cannot keep up with English-Only programs are failing. Most often, the choices are limited. The student chooses to assimilate or else drop out.

The counter force towards globalization is also witnessed in Japanese society. For instance, Kushida (2011) notes Japan’s self-serving telecommunications advancement as the “Galapagos effect.” Mobile phones showed great advancement by integrating sophisticated technologies unseen in other countries. Nonetheless, while the domestic market was stimulated by this technological sophistication, the global market was unaffected and remained indifferent. That is, cellular technology experienced a unique and evolutionary advancement within Japan but such advancement kept the needs of the global market at arm’s length.

Furthermore, from an ethnographic perspective, the bearing of pure-bloodedness of the Japanese identity patronizes ethnic solidarity. Thus, this maintains the widespread consciousness of racial discrimination and xenophobia towards racial minorities in Japan (Schoolland, 1990; Tamura & Furnham, 1993; Weiner, 2009).
The forces of assimilation in Japan are seen in the case of Kikokushijo or returnees. Kikokushijo were a target of discrimination in Japan because they acted and behaved differently (Kanno, 2003). Kikokushijo were Japanese students that returned from being educated outside of Japan. In most cases, the fathers were transferred and stationed in a foreign country by their companies, and sons and daughters attended local schools in the foreign country. In the 1960s and 1970s, Kikokushijo were considered “misfits” and a liability to Japanese society and education. The sojourning experience was claimed to harm the child’s education. In the mid-1970s, in response to the desperate pleas of the parents, the Japanese government initiated financial and administrative support in establishing full-time Japanese schools and supplementary Saturday schools abroad. This effort eventually provided a smooth transition and adjustment of Kikokushijo when they returned to schools in Japan. This gave an edge to the Kikokushijo as they were pressured to maintain conformity within the Japanese society (Yoshida, Matsumoto, Akashi, Akiyama, Furuye, Ishii and Moriyoshi, 2009). While the Kikokushijo were immersed in multicultural experiences abroad, all efforts by the Japanese government were exerted to assimilate them to the Japanese culture at home.

On the other hand, there was a group of people who could not be assimilated within the Japanese educational system, yet do not benefit or have equal status in Japan’s educational law. These were students who have graduated from international schools in Japan. According to ISC Research, an international school research center based in the United Kingdom (ISC, n.d.), currently there are 218 international schools throughout Japan. While some schools have existed for over a century, the majority have provided education for more than half-of-a-century (e.g. ASIJ, n.d., NIS, n.d., & TIS, n.d.). There are also new
emerging international schools. Graduates of international schools are usually proficient in both English and Japanese who operate in international settings. In accordance with Article 83 of the School Education Law of Japan, the current legal status of international schools in Japan are categorized as *kakushu gakko* or miscellaneous schools that provide vocational and practical training in dressmaking, bookkeeping, typing, driving and automobiles repair, and computer technology (Boyle, 2012; Ministry of Education, 2012). According to Boyle (2012), editor of a Japan-based online newsletter *Alien Times*, international school students are at disadvantage for three reasons. First, as international schools are not given legal status under the School Education Law of Japan, the credentials are not recognized in Japan. Second, international school students are discriminated against advancing their education. They cannot take the high school examination. Third, international schools cannot obtain subsidies from the government and rely solely on tuition. Unlike the privileges reinstated to the *Kikokushijo*, the international school community has been demarcated from the mainstream Japanese students and schools.

The argument posed is that international schools and graduates are an asset to Japan as a nation and offer philosophical, cultural, and epistemological knowledge and experiences that help transform Japanese society into a global society. Yet, they fall short by limiting the status and educational resources as a Japanese. This research essentially examines two perspectives. First, that Japanese students exposed to two cultures can be effective Japanese citizens, and second, the development of bicultural identity of Japanese people exhibit positive psychosocial outcomes as shown in previous researches with other ethnic groups.
While the number of international schools is insignificant as compared to existing Japanese schools, international school students make important contributions to Japan. It is the tip-of-an-iceberg manifestation of the counter globalization process that is witnessed in all facets of Japanese society. It is a perfunctory seclusion schema that has been deeply engraved in the Japanese psyche. Whether it is xenophobia or the satiated need to maintain pure-bloodedness of the Japanese culture is not the crux of the debate. The world as well as Japan is being pushed into globalization. If Japan is categorically earnest about contending with the global market and becoming a leader in the world, it is pertinent that all students in Japan be given a choice; a choice that allows students to become assimilated to the Japanese culture or accommodate new skills necessary to become global citizens.

**Purpose of the Study**

Researchers argue that individuals who have acquired dual-cultural perspectives by developing two cultural identities are functional and can be integral parts of our society (Bialystok, 2007; Leung, Maddux, Galinsky, & Chiu, 2008; Roccas & Brewer, 2002). They found that people who experienced multiple cultures had significant positive interpersonal skills. When people gain experiences navigating through multiple cultures and hold multiple perspectives, studies show that these people utilize creativity, demonstrate cognitive-flexibility, and are more respectful of others (Bialystok, 2007; Leung, Maddux, Galinsky, & Chiu, 2008; Roccas & Brewer, 2002). However, the majority of the studies of cognitive and psychosocial developments have been conducted with minors or college students (Bialystok, 2007; Leung, Maddux, Galinsky, & Chiu, 2008; Roccas & Brewer, 2002). Moreover, many studies of acculturation have been conducted with culturally and linguistically diverse individuals who are members of larger, dominant
cultures (Berry, Kim, Power, Young, & Bujaki, 1989; Marin, Sabogal, Marin, Otero-Saboal, & Perez-Stable, 1987; Phinney, Cantu, & Kurtz, 1997), but studies of individuals who navigate through cultures that do not necessarily have hierarchical relationships are limited, e.g. a Japanese person entering the US. Thus, the purpose of this research is to provide evidence that dual-cultural experiences promote advancement in interpersonal relational skills as represented by heightened cognitive-flexibility and self-efficacy of Japanese bicultural adults that navigate through the cultures of Japan and the US.

**Significance of the Study**

This study is important for three reasons. First, this study investigates bicultural Japanese adults. The majority of past research in biculturalism has been conducted in the U.S. and Canada with culturally and linguistically diverse college students (Chen, Benet-Martinez, & Bond, 2008). Studies on bicultural Japanese adults are limited. Acculturation studies on Japanese converge on sojourners (Abe & Wiseman, 1983; Ito, 2006; Matsumoto, LeRoux, Ratzlaff, Tatani, Uchida, Kim, & Araki, 2001; Yashima & Tanaka, 2001), or returnees/third culture kids (Fry, 2007; Moriyoshi, 2001; Takeuchi, Imahori, & Matsumoto, 2001; Tamura & Furnham, 1993; Yoshida, Matsumoto, Akashi, Akiyama, Furuiye, Ishii, & Moriyoshi, 2009), and Japanese high school students (Chinen & Tucker, 2005; Yashima & Tanaka, 2001). Additionally much research has focused on cultural adjustment (Diggs & Murphy, 1991; Matsumoto, et al., 2001; Simeon & Fujiu, 2000; Tamura & Furnham, 1993; Takeuchi, Imahori, & Matsumoto, 2001; Yashima & Tanaka, 2001; Yoshida, et al., 2009).

Second, this study examined a new predictor variable that may likely add to the knowledge of antecedents of biculturalism. The predictor variable is, “The number of years Japanese adults have worked in Japan or the US.” Being in an occupation is an
essential element for Erik Erikson’s (1968; 1980) and James Marcia (1980) concept of identity development. Interpretation of bicultural identity through such factor has not been used widely, and this study yields useful methodological findings.

And thirdly, this study extends Kim and Omizo’s (2005) study by showing the relationship of Japanese bicultural individuals with self-efficacy and cognitive-flexibility.

**Theoretical Rationale**

The overarching question of the study asked: what are the effects of developing a bicultural identity in Japanese adults? To answer the overarching question, it was necessary to divide the question into two components: 1) the definition of biculturalism, and 2) the effects of biculturalism (Figure 1). To define and operationalize biculturalism the alternation model (LaFromboise, Coleman, & Gerton, 1993), concept of acculturation (Berry, 1992), Erikson’s concept of identity development (1968;1980), and Marcia’s concept of identity development (1980) were used. Self-efficacy (Bandura, 1997) and cognitive-flexibility (Martin & Rubin, 1995) were two effects of biculturalism that were also observed in this study. The main theoretical framework utilized to define biculturalism in this study is the alternation model (LaFromboise, Coleman, & Gerton, 1993). The alternation model proposes that it is possible to maintain a positive relationship with two cultures without having to choose between them. Moreover, unlike the studies conducted in North America, this model does not assume hierarchical relationships between two cultures. An individual can assign equal status to the two cultures. In addition, Berry’s (1992) concept of acculturation offers variables commonly used to operationalize biculturalism. The main variables used in this study were: cultural identity, social interaction, and language proficiency. To add to the definition and operationalization of
biculturalism the frameworks of Erik Erikson’s (1968;1980) and James Marcia’s (1980) identity development theories were used. The uniqueness of this study is the attempt to define bicultural navigation by incorporating number of years working in a given culture. Erikson defines that sameness and continuity are essential factors in identity development. Marcia adds to this definition by suggesting being in an occupation is a pertinent ingredient.

Examining the effects of biculturalism is the gist of this study. The model of LaFromboise, et al. (1993) speculates that those individuals who can effectively alternate between two cultures exhibit higher cognitive function and mental health status than people who are monocultural (LaFromboise, et al., 1993; Lambert, 1977). The hypothesis is that the development of biculturalism in an individual will yield new cognitive and psychological attributes as evidenced in measuring self-efficacy (Bandura, 1997) and cognitive-flexibility (Martin & Rubin, 1995). Self-efficacy is an individual’s self-perception of the ability to be productive (Bandura, 1997) and cognitive-flexibility is an individual’s ability to be flexible to adapt to various situations (Martin & Rubin, 1995). The independent variables are: age, gender, education, cultural identity, language proficiency, social interactions, years working in Japan/US, years living in Japan/US, frequency of usage of Japanese/English at work, years lived in a foreign country prior to the age of 18, and Japanese support. The dependent variables are self-efficacy and cognitive-flexibility. All in all, the amalgamation of the six frameworks is referred as the bicultural navigation model (Figure 1).
Figure 1. Bicultural Navigation Model (Shimogori, 2012)

Biculturalism
(LamFromboise, et.al., 1993)

Operationalization of Biculturalism

- Cultural Navigation Scale
- years working in Japan
- years working in the US (Erikson, 1968; Marcia, 1980)
- Hi/Lo years working in Japan
- Hi/Lo years working in the US
- age
- gender
- education
- cultural identity
- language
- social interactions (Berry, 1992)
- years working in Japan/US
- prior to 18
- support in Japanese

Effects of Biculturalism

self-efficacy
(Bandura, 1997)

cognitive-flexibility
(Martin & Rubin, 1995)
Research Questions and Hypotheses

The research questions are:

1. **RQ1**: What is the relationship of bicultural identity to self-efficacy and cognitive-flexibility?

   **H1**: The higher the bicultural scores (represented by higher cultural navigation scale scores) the higher the self-efficacy and cognitive-flexibility scores.

2. How does bicultural identity predict self-efficacy and cognitive-flexibility? 

   (Bicultural identity is defined by two independent variables: the number of years participants have worked in the US and/or Japan.)

   **H2**: Both number of years working Japan and the US will be high predictors of self-efficacy and cognitive-flexibility/

3. What are the differences between number of years working in the US and/or Japan with self-efficacy and cognitive-flexibility?

   **H3**: The higher the number of years working in Japan and the US, the higher the scores on self-efficacy and cognitive-flexibility.

4. Which biculturalism variables best predict self-efficacy and cognitive-flexibility?

   **H4**: All established predictors will be high predictors of self-efficacy and cognitive-flexibility.

Overview of the Methodology

This correlational study examined the differences of self-efficacy and cognitive-flexibility of bicultural Japanese citizens. Participants were adults ranging from 18 to 65 years old, Japanese citizens, bilinguals of English and Japanese, alumni of international schools in Japan, and were living or working in Japan or the US. Six international school
headmasters were approached to obtain help in reaching out to the alumni. Emails with links to the online Qualtrics questionnaire were dispatched to the alumni. Qualtrics is an online data collection and analysis service offered to individuals and organizations.

Participants that agreed to participate clicked the link to enter the questionnaire. The correlation of the scores on the self-efficacy scale (Sholz, Dona, Sud, and Schwarzer, 2002) and cognitive-flexibility scale (Martin & Rubin, 1995) for monocultural and bicultural Japanese adults was examined. A questionnaire referred to as the cultural navigation questionnaire (CNQ) included items to operationalize monocultural and bicultural identity (Refer to Appendix A).

**Study Assumptions**

In this study, four general assumptions are given. First, identity is interpreted as a state or fact of being that remains the same and continues to be the same, which is construed, and at times, altered through relationship with the dynamic society. Second, an individual is capable of maintaining two cultural identities; the ethnic identity and the new cultural identity. Moreover, by positing a bidimensional (or bidirectional) approach to cultural adaptation, surrendering one of the cultural identities is not required by the individual. Third, another central assumption is that the development of two cultural identities will potentially contribute to the emergence of new psychological attributes. Last, the idea that through the process of developing two cultural identities, the individual not only learns about and experiences his or her heritage culture but the secondary culture as well.
**Definition of Key Terms**

The following five concepts are germane to this study. They are *bicultural identity, monocultural identity, bilingual, self-efficacy,* and *cognitive-flexibility.*

*Bicultural identity* refers to an individual who maintains two cultural identities, e.g. Japanese identity and American identity, and can effectively negotiate and navigate between two cultures (LaFromboise, et al., 1993). This individual speaks two languages and can live and work in two cultures as effectively as a native person in each culture. In this study, bicultural identity is defined by the composite of the following subscales: cultural identity subscale, language proficiency in Japanese and English, the level of Japanese used while working in Japan, the level of English used while working in the U.S., the level of social interaction in the Japanese and U.S. culture, and number of years working in Japan and the U.S.

*Monocultural identity* refers to an individual who maintains one cultural identity. In this study, this individual is bilingual but has experience living and working only in one culture. In this study, a participant with a monocultural identity is an individual who has lived or worked mainly in Japan or the US.

*Bilingual* is a person who speaks two languages but may or may not possess a bicultural identity. Pertaining to this study, participants in this study speak Japanese and/or English.

*Self-efficacy* is the conviction that an individual has the capabilities basic for successful planning, organizing and executing a task to obtain specific goals and results (Bandura, 1997). According to Bandura, self-efficacy is related to one’s productivity or is a strong predictor of goal attainment.
Cognitive-flexibility is the flexibility to adapt to varying situations (Martin & Rubin, 1995). An individual is not caught up with one perspective, but has the cognitive flexibility to accept and adapt to multiple perspectives.

**Organization of Study**

In the next chapters, a literature review, methodology, results, and summary and discussion of the dissertation research is provided. Chapter Two provides a discussion of the definition, antecedents, measurements, and effects of biculturalism. Moreover, a general understanding of the Japanese identity was provided. In Chapter Three, the methods of the study including a pilot study of the instrument are presented. In Chapter Four, the results to the research questions and statistical analysis are offered. Finally, Chapter Five provides a summary and discussion of this study.
CHAPTER 2 - REVIEW OF LITERATURE

The chapter is divided broadly into two components: theoretical literature and empirical research. The theoretical literature section begins with a discussion of taxonomy and dimensionality of biculturalism followed by the examination of four prominent biculturalism theories. Subsequently, the similarities and the differences of the theories are examined.

In the empirical research section, themes that dominate the research of biculturalism are the focus. First, the antecedents of biculturalism are reviewed. This includes factors that contribute to becoming bicultural. Second, the psychometrics studies on biculturalism are introduced. Third, foremost of interest, the effects of biculturalism are explored. Furthermore, for the purpose of this study, two constructs, cognitive-flexibility and self-efficacy, are scrutinized. Fourth, a section is devoted to describe the foundations of Japanese identity development as well as cultural adaptation of the Japanese people. Finally, a discussion section provides the concept of the main variable this study observes, which is the number of years working in a culture, the process of operationalizing biculturalism, and the theoretical framework, namely, the bicultural navigation model.

Theoretical Literature

Identity is an abstract construct that cannot be perceived by our senses. Eric Erickson defines identity as a “subjective sense of an invigorating sameness and continuity” (1968, p. 19). Social psychologists agree that identity is construed through the individual’s relationship with the society (Baumeister, 1986; Baumeister & Leary, 1995). For the sake of this study, it is worth noting that current theories have evolved under the assumption that our identity endures development within a single society or culture. However, in the
culturally and linguistically diverse world we now live in, it is not uncommon to witness individuals with the influence of multiple cultures. Likewise, identity endures an evolving and changing definition as well. One’s identity is the unseen construct that define who we are and what we are. At the same time, one’s identity is dynamically malleable and fungible molded through the relationship with the society. In this study, identity is interpreted as a state or fact of being that remains the same and continues to be the same, which is construed, and at times, altered through relationship with the dynamic society.

Given the boundaries of identity, it appears that defining bicultural identity or biculturalism would not be an arduous task. It is merely an individual who has related with two societies, e.g. the US society and the Japanese society, and have acquired two cultural or ethnic identities. Unfortunately, that has not been the case in defining biculturalism. Individuals who are bicultural were initially referred under the heading in sociological literature as dual-culture personality (Padilla, 2006). Half a century ago, Park (1928) and Stonequist (1935) identified a bicultural person as someone who is in the process of adjusting to a new culture and was generally referred to as “marginal.” Park describes marginal man as an individual who does not bring about any important cultural changes, and thus, the marginal man experiences a cultural crisis that is relatively permanent, is spiritually instable, restless and malaise-like. Stonequist adds to this description of the marginal man by implying that they are inferior in status and influenced and attracted by the dominant group. Likewise, individuals placed in a new culture, such as immigrants, were considered people who were lost between cultures. LaFromboise, Coleman and Gerton (1993) add to the discussion by revealing that those who navigate through two
cultures are not uncommon to be inflicted by a negative stereotype such as “apple,” “banana,” or “oreo.”

However, years after the marginal man concept, studies of ethnic identity development thrived (Atkinson, Morten, & Sue, 1979; Banks, 1982; 1994; Phinney, 1989). In the course of such advancements, the definition of ethnic identity offered by Rotheram and Phinney (1987) was “one’s sense of belonging to an ethnic group and the part of one’s thinking perceptions, feelings, and behavior are due to ethnic group membership” (p. 13). Nevertheless, as the studies were more interested in furthering the understanding of the developmental stages of ethnic development, defining biculturalism was not of their primary goal. The theories conclude by stating that the final goal is “to come to terms with one’s biethnicity (Atkinson, et al., 1979; Banks, 1982; 1994; Bialystok, Craik, & Luk, 2009; Phinney, 1989).” While the understanding of the acculturation process has seen much refinement and advancement in the field of ethnic studies, the definition pertaining to biculturalism remained uncouth requiring further refinement and understanding.

**Elements of acculturation**

As the numbers of immigrants have increased during the turn of the century, acculturation stress was the focus on the studies of acculturation. Acculturation is a phenomenon when an individual enters a new culture engaging in a first-hand contact with the host culture subsequently experiencing psychosocial and cultural changes (Berry, 2005; Rudmin, 2003; Ryder, Alden, Paulhus, 2000). Furthermore, acculturation stress is a stress reaction to life events experienced in the process of acculturation (Berry, 2005). When immigrants entered a new culture with the hopes of opportunities unfounded in their home country, navigating in a new culture was not void of stress (Berry, 2005; Berry, Trimble,
However, in pursuance of fathoming the understanding of acculturation, it was palpable to differentiate the varying outcome of acculturation. Researchers were beginning to understand the different stress levels of immigrants in different stages of the acculturation process. For instance, immigrants adopting a new cultural identity as opposed to those maintaining a heritage identity appeared to have different stress responses. These emerging understandings lead researchers to develop taxonomy of various outcomes or responses to acculturation.

The following segment describes the taxonomy and the argument of the dimensions of biculturalism. Taxonomy development was pertinent in identifying the various outcomes of acculturation. Equally important for the advancement of acculturation studies was psychometrics. The process of acculturation has often been understood through a self-reporting method such as responding to surveys. Based on the responses, researchers were able to categorize participants as defined by the taxonomies. While more on psychometrics of acculturation will be provided in the latter part of the chapter, the following segment will be devoted to introducing the taxonomies. Moreover, prior to leaving this section, a discussion on the shift from a unidimensional to a multidimensional approach to understanding the acculturation process is furnished.

**Taxonomy.** In studies of acculturation, researchers have been interested in developing acculturation taxonomy as a basis for research. According to the study by Rudmin (2003) the fourfold theory which consisted of four types of acculturation has been dominant in research literature for the past century. Generally speaking, an individual will have positive or negative preferences, attachments or responses to the cultures. For the
sake of clarity, Ward and Kennedy’s (1994) terms, host culture and national culture will be used here. Host culture refers to the new culture an individual enters and often times referred to secondary culture or dominant culture. National culture is the culture of the individual’s ethnic or original culture which other studies referred to as ethnic culture or heritage culture. In immigrant studies, relationships between cultures are often hierarchical in nature. In such cases, the host culture is referred to as the dominant culture and the national culture as minority culture.

The four types of acculturation are: 1) an individual having a positive response to the host culture and a negative response to the national culture; 2) an individual having a negative response to the host culture and positive response to the national culture; 3) an individual having positive responses to both host and national culture; or 4) an individual having negative responses to both host and national cultures. While numerous acculturation typologies have been created, the typologies that has established its place in acculturation studies are John Berry, et al. (1986) typologies namely, *assimilation*, *separation*, *integration*, and *marginal*, respectively, to the aforementioned four types of acculturation.

*Integration* will be interchangeably used in this study with biculturalism and bicultural identity. The critical concept of biculturalism, which is the gist of this study, is that an individual does not reject the host or national culture but incorporates the values, behaviors, languages, and ideologies of both cultures. By having a positive response to the two cultures, the individual develops two cultural identities.

**Unidimensional to Multidimensional approach.** In early studies of acculturation, outcomes to acculturation were acknowledged as unidimensional. The assumption of the
acculturation process was seen as relinquishing of values, behaviors, and attitudes of one culture while simultaneously adapting to the other cultural identity (Gans, 1979). That is, an individual was either assimilated or separated and could not be integrated. The outcomes were mutually exclusive. From a psychometric standpoint, the outcomes have an inverse relationship and could not function independently (Abe-Kim, Okazaki, Goto, 2001; Kang, 2006; Ryder, et al., 2000). On the contrary, theorists that supported the multidimensional or bidimensional models have conceived acculturation as a process in which the development of an ethnic identity is independent from the development of a new cultural identity (Berry, 1980, LaFromboise, Coleman, & Gerton, 1993; Ryder, et al., 2000). An individual is capable of developing a cultural identity of the host culture and simultaneously a cultural identity of the ethnic culture.

However, in recent studies the concept of unidimensionalness of acculturation contravenes the multidimensional qualities of cultural adaptation. Ryder, Alden, and Paulhus (2000) conducted a study comparing both unidimensional and bidimensional models of acculturation of undergraduate individuals identified as having Chinese ancestry. They showed that the bidimensional model was the more effective means to operationalize acculturation. In another study, the independence assumption of acculturation is proposed (Kang, 2006). According to Kang (2006), the development of an ethnic identity is independent from the development of a new cultural identity. Specifically this means that an individual can maintain and develop two cultural identities at the same time without relinquishing either one.

Besides interest in acculturation stress, dominant areas in the study of biculturalism have typically been the examination of factors or antecedents of biculturalism,
psychometrics, and the effects of biculturalism. In the latter part of this chapter, the themes will be scrutinized closer. Prior to such discussion, in the following section four theories are identified: 1) sphere of biculturalism; 2) social identity complexity; 3) concept of acculturation; and 4) five models of second culture acquisition. Subsequently, the similarities and differences of the theories are examined. These four theories are presented in Table 1 that provides an estimated alignment of theories using five descriptors: secondary culture; heritage culture; duality – mutually exclusive; duality – integrative; and variant.

Theories of biculturalism

The purpose of identifying and comparing the existing theories of biculturalism was to find a theoretical framework that works best with this study. As was delineated in chapter one, the overarching question of this study is what are the effects of developing a bicultural identity in Japanese adults? The sphere of biculturalism (Darder, 1991), social identity complexity (Roccas & Brewer, 2002), concept of acculturation (Berry, 1992), and five models of second culture acquisition (LaFromboise, Coleman and Gerton, 1993) are scrutinized to find the best fit theoretical framework for this study.

Sphere of biculturalism. Four major outcome patterns related to the bicultration process are being posited by Antonia Darder (1991). As seen in Table 1, the patterns are alienation, dualism, separatism, and negotiation (Darder, 1991, pp.55-60). Alienation is delineated as a response when a bicultural person adopts the identification of the mainstream culture and rejects the primary culture identity. Dualist will maintain two separate identities that do not integrate. Separatism strictly entails maintaining the primary cultural identity while rejecting adamantly the mainstream identity. Negotiation is a
response pattern in which the individual attempts to mediate, reconcile and integrate the cultural experiences while maintaining the primary identity and negotiating with the mainstream identity in order to function toward social transformation within the society at large. Darder’s (1991) biculturation is founded under the premise that the four major response patterns are influenced by the relationship with the resistance and domination to the forces of hegemony and the dominant and subordinate culture.

Table 1

*Estimated Comparisons of the Bicultural Identity Theories*

<table>
<thead>
<tr>
<th>Descriptors</th>
<th>Sphere of Biculturalism (Darder, 1991)</th>
<th>Social Identity Complexity (Roccas &amp; Brewer, 2002)</th>
<th>Concept of Acculturation (Berry, 1992)</th>
<th>Five models of Second Culture Acquisition (LaFromboise, et.al, 1993)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary culture</td>
<td>alienation</td>
<td>cultural dominance</td>
<td>assimilation</td>
<td>assimilation</td>
</tr>
<tr>
<td>Heritage culture</td>
<td>separation</td>
<td>cultural dominance</td>
<td>separation</td>
<td>acculturation</td>
</tr>
<tr>
<td>Duality - Mutually exclusive</td>
<td>dualism</td>
<td>compartmentalization</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Duality – Integrative</td>
<td>negotiation</td>
<td>merger (integrated biculturalism)</td>
<td>integration</td>
<td>alternation</td>
</tr>
<tr>
<td>Variant</td>
<td>-----</td>
<td>intersection (hyphenated identities)</td>
<td>deculturation (no affiliation)</td>
<td>- multicultural - fusion (new culture)</td>
</tr>
</tbody>
</table>
**Social identity complexity.** Sonia Roccas and Marilyn B. Brewer (2002) introduced the concept of social identity complexity which is a new theoretical construct about “the individual’s subjective representation of the interrelationships among his or her multiple group identities” (p.88). The more overlap or interconnectivity with an *ingroup* the less complex is the social identity, thus, having a relatively simplified identity structure.

From a sociological perspective, *ingroup* implies a concept in which a group of people who share similar values, interests and attitudes and through the interaction creates feelings of community, camaraderie, or exclusivity. On the other hand, when the multiple ingroup identities do not overlap or converge as much, the higher the degree of social identity complexity. Their research indicates that a person with a complex social identity is more open to change and is tolerant. Roccas and Brewer (2002) apply their theoretical construct in understanding how bicultural learners may cope with the demands of acquiring cultural identities. The outcomes (coping identities) are: *hyphenated identities, cultural dominance, compartmentalization,* and *merger.*

*Cultural dominance* as seen in Table 1 has two outcomes: assimilation and separation. The assimilation of the social identity complexity is equal to alienation in Darder’s sphere of biculturalism. An individual assimilates to the host family at the expense of the ethnic identity being lost. *Separation* is akin to *separatism* where the individual identifies with his or her heritage identity and alienates oneself from the host society. *Compartmentalization* is a third mode of adaptation in which both primary and host identities are maintained and have competence in both cultures. However, the identities are context specific or situation specific, in which the identities do not activate simultaneously. The *alternating biculturalism* noted by LaFromboise, et al. (1993) is the
equivalent. Integrated biculturalism or “merger,” is when an individual’s identity can take many forms or adopt multiple cultural identities simultaneously. The social identity complexity is the highest for the person functioning at this dimension. Unlike other bicultural identity theories, the hyphenated or intersection identity is unique to the social identity complexity theory. It is the intersection of two ingroup identities such as an ethnic heritage identity (e.g. African) and a host society (e.g. U.S.A.). The combined identity is not merely an additive concept but the development of an exclusive cultural hibernation of the two ingroup identities, e.g. African-American.

**Concept of acculturation.** Berry (1992) attempts to define acculturation not from a global perspective but the impact the ethnic group experiences in relationship upon the dominant culture in the Northern American sector. The term “ethnic group” will be used interchangeably with minority culture, people of color, and primary culture. The term “dominant culture” will be used interchangeably with secondary culture, host culture, and larger society.

Following the initial stages of contact with the two cultures, the individual is likely to experience conflicts. As a means of adaptation to reduce the acculturation conflicts, the individual will likely adjust, react or withdraw to a given stressful situation. As seen in Table 1, these fundamental behaviors in response to conflicting cultural encounters were identified into four distinct varieties of acculturation which are assimilation, separation, deculturation, and integration. Assimilation is a form of adaptation in which the individual relinquishes his or her cultural identity and establishes the dominant culture identity. Rejection refers to the withdrawal from the dominant culture and retaining the ethnic culture identity. Berry (1992) defines deculturation as “characterized by striking against
the larger society and by feelings of alienation, loss of identity, and what has been termed acculturative stress…It constitutes a classical situation of ‘marginality’ (p.15).” Integration implies the maintenance of both the ethnic culture and the dominant culture identity.

**Five models of second culture acquisition.** LaFromboise, Coleman and Gerton (1993) introduce the five models of second culture acquisition which occurs in the process of transitioning within, between and among cultures. As seen in Table 1, the taxonomy used to describe the five models of second culture acquisition is *assimilation, acculturation, alternation, multicultural, and fusion*. While each group was initially created to describe separate phenomenon, they can be perceived as a process in which an individual enters and adapts to a new culture. *Assimilation* is defined in the same terms with Berry (1980) —concept of acculturation—and suggests the loss of one’s original cultural identity while acquiring a new, second cultural identity. Three dangers that are associated with the process of assimilation are described by LaFromboise, et al. (1993). These dangers are the likelihood of being rejected by the members of the new culture, the likelihood of being rejected by the members of the ethnic culture, and the likelihood of evidencing excessive stress in the process of acquiring new behaviors of the new culture and relinquishing behaviors of the old culture.

In the *acculturation* model, an individual will always be identified as the member of the minority culture while becoming a competent participant of the majority culture. Both assimilation and acculturation model posit a linear and unidirectional (also unidimensional) relationship of the two cultures. LaFromboise, et al. (1993) concludes that individuals that maintain a healthy relationship with the majority culture are less likely to experience acculturation stress. In contrary, acculturated individuals, due to second-class
reinforcement and alienation from the majority culture are prone to experiencing more stress.

The term *alternation* model comes from the understanding that an individual is capable to “alternate” between two cultures in response to the situational context and does not necessarily compromise his or her sense of cultural identity. An individual operating alternatively involves a dual mode of social behavior. Unlike the assimilation and acculturation models, the alternation model posits a bidirectional (also bidimensional) and orthogonal relationship between the new culture and the ethnic culture, and does not establish or assume a hierarchical relationship between the two cultures. Moreover, based on studies summarized by the authors, it was speculated that those who are capable of alternating between cultures exhibit higher cognitive functioning and mental health status than individuals with monocultural identities.

The *multicultural* model is a pluralistic approach to understanding the integration of two or more cultures. All cultural identities are recognized and are not based on hierarchical relationships. The difference of this model with the alternation model is the understanding that people functioning under the ideology of the multicultural model cooperate for the interest of the larger social structure. The *fusion* model incorporates the idea that a new culture will be created through the combination of the cultures.

**Similarities and differences.** This assumption of this study is that an individual is capable of maintaining two cultural identities; the ethnic identity and the new cultural identity. Moreover, by positing a bidimensional (or bidirectional) approach to cultural adaptation, surrendering one of the cultural identities is not required by the individual. Another central assumption is that the development of two cultural identities will
potentially contribute to the emergence of new psychological attributes. Having said that, based on the assumptions, the aforementioned four bicultural identities will be analyzed.

**Descriptors.** As seen in Table 1, as each theory uses typologies that are distinct from each other, descriptors were generated to identify and categorize the taxonomies based on common definitions. The descriptors are *secondary culture, heritage culture, duality- mutually exclusive, duality-integrative, and variants*. *Secondary culture* is when an individual assimilates to the host or dominant culture. *Heritage culture* is an individual who relates with her or his heritage or the national culture and separate from dominant culture. *Duality – Mutually exclusive* is an individual who maintains two cultural identities, though the identities are mutually exclusive. *Duality – Integrative* is an individual who maintains two cultural identities, though the identities are not mutually exclusive. *Variants* are unique constructs that are not shared amongst other theories. The three variants are *deculturation, intersection* and *multicultural fusion*. *Deculturation* identifies an individual who does not affiliate with any culture, *intersection* is an identity that is an amalgamation or the union of the host (secondary) and ethnic (heritage) culture, and *multicultural fusion* is a new emerging cultural identity.

**Taxonomy Analysis.** The ensuing step was to examine and analyze the typologies to determine which theories are the best fit for this study. First, as seen in Table 1, the concepts listed *secondary culture* and *heritage culture* will be eliminated from this study as they suggest the acquisition of one and only one cultural identity. The descriptor *secondary culture* implies individuals that acquire only the dominant culture or the host country, e.g. the Eurocentric culture in the US, and *heritage culture* implies those individuals that reject the development of the secondary culture and acquires one’s own ethnic cultural identity.
Similarly, the concepts listed as *variant* will not be appropriate as the concepts do not infer the ability to develop two distinctive cultural identities. In *deculturation*, Berry suggests that an individual has no affiliation with any of the cultures, while LaFromboise, et al. (1993) and Roccas and Brewer (2002) suggest that an individual develops a *fusion* (new culture) or the *intersection* (hyphenated identities) of two cultures, respectively. Moreover, the *multicultural* concept premises identity development in multicultural settings.

In furtherance, due to sociocultural conditions delineated in Chapter One, the participants of this study will be comprised of the Japanese people. More specifically, they are Japanese citizens that have acquired the ability to speak in Japanese and English and moreover, developed two cultural identities: a Japanese identity and an American identity. For this reason, Berry’s (1992) Concept of Acculturation and Darder’s (1991) Sphere of Biculturalism, for the most part, would not be a good fit, as the assumption of bicultural identity development of both theories are based on the understanding that two cultures have a hierarchical relationship. One culture is dominant over the other subordinate culture. A Japanese person acquiring an American identity will not necessarily hold this nor preclude this hierarchical relationship.

As stated in the descriptor of *duality: mutually exclusive* (Table 1), the *compartmentalization* model of Roccas and Brewer (2002), suggest that the two cultural identities are mutually exclusive, and simultaneous functioning is not considered; the two cultures are incompatible. In other words, a Japanese-American bicultural person is a Japanese person or an American person and is never seen as a mixture or an integration of the two identities. One of the assumptions of the development of a bicultural identity in this study is the idea that through the process of developing two cultural identities, the
individual not only learns about and experiences his or her heritage culture but the secondary culture as well. For such a bidirectional learning process to occur, it is pertinent that the individual capitulates to both cultures and deepens the experiences in both cultures. For example, in the process of trying to understand and acquire the other culture, should the individual exert effort into empathizing with the secondary culture instead of unequivocally rejecting it, the assumption is that one will have a greater opportunity to assimilate with the secondary culture. The compartmentalization concept, due to the incompatible dualities of the identities, undermines the potential for such bidirectional negotiation to occur and the emergence of new attributes through the integration of two cultural identities.

The main perspective that is shared upon LaFromboise, et al. (1993) concept of alternation and Roccas & Brewer (2002) merger is the idea that two cultural identities are capable of functioning not only separately but simultaneously. As was introduced earlier, this is a bidimensional model which supports the notion that an individual is capable of maintaining his or her ethnic identity and simultaneously develops a host culture identity. Unlike the dualistic functioning of compartmentalization, alternation and merger concepts are integrative. Both cultural values can be understood separately but at the same time be combined and integrated (Oyserman, Sakamoto, & Lauffer, 1998). Thus, the alternation and merger models seem to be a good fit for this study.

While the Roccas and Brewer (2002) merger model claims that simultaneous recognition of two cultural identities are plausible, LaFromboise, et al. (1993) alternation model extends the concept further by suggesting that there is a sense of choice in regards to cultural identity development. An individual can choose the degree of affiliation with one
culture over the other. As this study is concerned of two nations that are not necessarily bound by hierarchical relationships, and thus, there is some flexibility to choose between being Japanese or American or even both, this notion of selection is essential. In addition, they also postulate that the effects of the alternation model are intuitive, emotional, and cognitive enhancement. Granting the similarities of the two constructs, the alternation model provides the individuals freedom to make a choice between two cultures as well as postulating psychosocial and cognitive outcomes through the development of a bicultural identity. Based on this, the alternation model more closely represents the population under this study.

In this section the definition of biculturalism was provided by observing the taxonomies related to the process of bicultural development. Subsequently, the unidimensional and bidimensional models of biculturalism were examined. The following sections canvassed the five prominent theories of biculturalism. After careful analysis the alternation models appears to be the best theoretical framework that fits this study. In the course of the decision making process, the following emerging questions will be examined: What are the antecedents that lead an individual to become bicultural? How can biculturalism be operationalized? These questions will be scrutinized in the following empirical research section.

**Empirical Research**

In recent years, researchers argue that individuals that have acquired dual cultural perspectives through developing two cultural identities are functional and can be integral parts of our society (Bialystok, 2007; Leung, Maddux, Galinsky, & Chiu, 2008; Roccas & Brewer, 2002). However, it took some time in order to substantiate this claim. In the
earlier stages, acculturation studies focused on negative psychological effects especially pertaining to acculturation stress (Berry and Annis, 1974). For instance, *marginalization* and *separation* were associated with high stress level whereas *assimilation* with intermediate level of stress and *integration* associated with the lowest level of stress and was the most adaptive acculturation strategy (Berry, et al., 1986; Berry & Annis, 1987; Ryder, et al., 2000; Ward & Kennedy, 1994, 1999).

To observe the positive effects of bicultural identity develop, this empirical research section focuses on four components. First are the antecedents and measurements of biculturalism. The question asked is, “What are the factors (antecedents) studied in the field of acculturation that are posited to affect the process of acculturation?” To understand the outcomes of acculturation, the development of psychometrics have been a crucial component of acculturation studies. Instruments, especially in the form of self-report, such as questionnaires and surveys have been developed, but require further refinement. Some issues related to psychometric development will be considered. Second, the component that occupies a substantial interest in this study is to explore the effects or consequences of biculturalism on personal relationships. Examination into past research pertaining to the outcomes of developing bicultural identity will be introduced. A closer look of two constructs, cognitive-flexibility and self-efficacy is provided. Third, prior to leaving this section, Japanese biculturalism is observed. This includes a discussion on the Japanese identity as well as the acculturation studies of Japanese people. Finally, a discussion section will end by addressing three areas; the predictor variable “number of years working in a culture,” the process of the operationalization of biculturalism, and the *bicultural navigation model*. 
Antecedents and measurement of biculturalism

As was noted earlier, one dominant aspect that has been the focus of studies of cultural adaptation was the attempt to determine the boundaries of various outcomes or strategies of acculturation. In this section, another area that has been dominant in the field of acculturation studies, the antecedents of biculturalism will be examined (Berry, et al., 1986; Bhugra, Bhui, Mallett, Desai, Singh, & Leff, 1999; Miller, Brewer, Arbuckle, 2009; Ward & Kennedy, 1994;1999). In the literature, antecedents have also been referred to as correlates, dimensions, and variables. Studies have shown that the integration outcome of acculturation to be the favored strategy as individuals are psychologically grounded and are capable of dealing with stress more than the alternative strategies. Knowing this, the desideration to highlight the antecedents that are building blocks of biculturalism in an individual was of natural outcome.

Berry, Trimble and Olmedo (1986) identified antecedents that appear in literature. The antecedents are: education, wage employment, urbanization, media, political participation, religion, language, daily practices, and social relations. While these antecedents are commonly used in formulating surveys, it is to be noted here that the authors indicate that the scales and indices are not generally created for universal use or as a standard instrument which can be applied in any field settings (Berry, et al., 1986). Some antecedents can be more relevant to one culture and non-relevant to another.

In an attempt to expand the research on antecedents, Kim and Abreu (2001) conducted a meta-analysis of 33 studies consisting of the use of acculturation instruments. Of the instruments they identified, two were designed for African American, three for Asian Americans, 23 for Hispanic Americans, and three Native Americans, and one Native
Hawaiian, and one for all ethnic minority groups. After analysis of the instruments, authors identified four basic dimensions, behaviors, values, knowledge, and cultural identity. More specifically, the dimensions include language, attitudes of social relations, understanding of culture-specific information, and cultural identification, respectively. Furthermore, Zea, Asner-Self, Birman, & Buki (2003) conducted two studies on Latino/Latina college students (N=246) and identified equivalent dimensions related to the function of acculturation identified by Kim and Abreu (2001).

However, Kang (2006) cautions that due to a lack of orthogonality, not all measurements of acculturation assess acculturation effectively, and therefore, further development of existing instruments is essential. Kang (2006) identified three types of questions generally used in acculturation measurement. The first type is frequency format in which the questions are framed to ask how much and how often, and responses ranging from not at all to very much or never to always. A sample question will include, “How much do you speak English?” The second type is proficiency format where the questions are framed to rate each question in terms of language competence, such as, “How well can you speak English?” The responses will be not very well to very well. The final type is endorsement. Most of the questions of this type are rated in terms of how strongly they agree or disagree. A question of this type will be one such as “I think of myself as American.” In her study, Kang (2006) confirmed her hypothesis that acculturation measures which implement endorsement formats satisfied the independence assumption. In other words, developing an ethnic identity is independent from a mainstream identity, and thus, allows an individual to develop a bicultural identity. According to Kang’s (2006) study, endorsement formats yield orthogonality of the two cultural orientations and thus,
are better scale formats to sustain the bidimensional approach to acculturation measurement.

**Effects of biculturalism**

Berry identifies effects of acculturation (Berry, et al., 1986). Behavioral shifts and acculturation stress are two types of consequences of acculturation found in literature. Behavioral shifts included cultural identity change, cognition shifts and personality shifts. Acculturation stress result from psychological conflict when in contact with a new culture. This study centers on the behavioral shifts that occur in the process of acculturation contact.

The existing research on behavioral shifts of acculturation primarily focuses on the relationship of minority individuals with a dominant culture, such as French, Portuguese, Korean, and Hungarian immigrants relating with the Canadian society (Berry, Kim, Power, Young, & Bujaki, 1989), Mexican immigrants in the U.S. (Marin, Sabogal, VanOss Marin, Otero-Saboal, & Perez-Stable, 1987; Phinney, Lou Cantu, Kurtz, 1997), and Chinese immigrants in the U.S. (Lu, 2001). Few studies have explicitly studied non-hierarchical relationships and sojourners (Church, 1982; Ward & Kennedy, 1999).

Moreover, studies have shown positive behavioral shifts occurring in the process of cultural adaptation and more specifically, the development of a dual cultural identity (Berry, et al., 1986; Bialystok, 2008; Bialystok, Viswanathan, 2009; LaFromboise, et al., 1993; Tadmor, Tetlock, & Peng, 2009). Of the existing research on positive behavioral shifts, a large number of studies focus on cognitive functioning (Bialystok, 2007; Bialystok, Craik, & Luk, 2008; Bialystok & Viswanathan, 2009; Hakuta, 1986) or studies on psychological outcomes of Latino/Latina and Chinese American college students (Kim & Omizo, 2005; Ryder, Alden, & Paulhus, 2000; Tadmor, et al., 2009; Wang &

In a seminal study conducted by Roccas and Brewer (2002), Israeli and American college students showed increased tolerance and positivity toward outgroup members when they were exposed to diversity of cultural perspectives. Leung, Maddox, Galinsky, and Chiu (2008) also found that multicultural experience promoted creativity and cognitive-flexibility in European American college students. In contrast, a study showed insignificant results related to positive psychological outcomes of dual-cultural identity development. Kim and Omizo (2005) examined self-efficacy and cognitive-flexibility in Asian American college students by using an Asian and European adherence scales, however, results were inconclusive.

Kim and Omizo (2005) examined the relationship of adherence to Asian and European American cultural values as independent variables with four dependent variables: collective self-esteem, acculturative stress, cognitive-flexibility, and general self-efficacy. Participants were 156 Asian American college students. A multiple regression was conducted and results indicated that adherence to both cultural values are positive predictors of two subscales of self-esteem; however, in contrast to previous studies, general self-efficacy and cognitive-flexibility did not yield significance. In previous studies, Berry and Kim (1988) have examined positive health mental relationships with adherence to bicultural competence. However, Kim and Omizo’s (2005) study may have shown contradictory results on account of selection error. It is likely that participants were not biculturally competent to begin with. This is said for two reasons. First, almost 70% of the students were second to fifth-generation Americans and the remaining were first-
generation and have lived in the U.S. for an average of 10.32 years. It appears that their dominant language is English, and thus they are more likely to be functioning in monocultural situations. They all attend U.S. colleges. Students may “adhere” to his or her Asian values, but the question that remains is, “Is adhering to a cultural value strong enough to be considered being competent in that culture?” This segues to the second reason. Developmental psychologist James Marcia (1980) claims that occupation plays a pertinent role in identity formation. College students without life and work experiences in a more heterogeneous environment are less likely to come across situations where they are faced with real-life and work problems, unexpected events, and decision making situations to develop self-efficacy and cognitive-flexibility. A closer look of cognitive-flexibility and self-efficacy will follow.

**Cognitive-flexibility.** Amongst cognitive psychologists, it is widely accepted that cognitive-flexibility is one of the three components along with inhibition and working memory that constitute our executive control (Miyake, Freidman, Emerson, Witzki, Howerter, & Wager, 2000). Executive control refers to one’s capacity to evaluate, make plans and decisions, and execute actions (Brooks, 2012). It is an interrelated process in the frontal lobe that functions as an “executive director” that commands our actions. It is understood that the higher the executive control, the more skilled we are in managing our lives. From this standpoint, learning the differences of executive control in bilingual and monolingual individuals has been a focal interest.

Bialystok (2009), a forerunner in the studies examining the bilingual minds notes that executive control develops earlier and is more efficient in bilingual than monolingual children. However, she has also reported pros and cons of developing bilingualism. In
studies conducted with children, young adults, and middle-aged and adults, bilingual individuals did better than monolinguals in executive control tasks that include cognitive-flexibility. Research consistently showed that bilingual children and adults have a more difficult time with lexical retrieval, such as in a fluency test where participants were asked to recite as many words possible in a minute beginning with a given letter. In their study, Bialystok and Viswanathan (2009) examined eight-year-old children living in Canada who spoke English, plus spoke one of Cantonese, Coratian, French, Hebrew, Hindi, Kannada, Mandarin, Marati, Punjabi, Russian, Tagalog, Telugu, or Urdu. Existing research on cognitive development is dominated by participation of bilingual individuals specifically of children (Bialystok & Viswanathan, 2009) or college students (Bialystok, Craik, and Luk, 2008; Leung, et al., 2008), however, research conducted with bicultural adults is limited.

While the focus of the findings of executive control has been on children and college students, acculturation studies have examined cognitive-flexibility as one of its dependent variables. It is posited that the more experience one has with other cultures, the individual becomes more flexible with interpersonal relationships (Roccas & Brewer, 2002; LaFromboise, et al., 1993). Martin and Rubin (1995) indicate that in order to be flexible in interpersonal relationships one must possess cognitive-flexibility. For an individual to be interpersonally flexible, the mind must be flexible as well, thus cognitive-flexibility is seen as an essential construct in acculturation studies. Cognitive-flexibility is considered the precursor of interpersonal flexibility. According to Martin and Rubin (1995) cognitive-flexibility includes an individual’s 1) awareness that there are options and alternative actions that are available in any given situation, 2) willingness to be adaptable and flexible in various situations, and 3) self-efficacy to be flexible. A growing number of
studies using undergraduate students in East Asia, the U.S., and Israel have shown positive outcomes in interpersonal relational skills as a result of bilingualism and biculturalism.

**Self-Efficacy.** Self-efficacy, a construct developed by Albert Bandura (1997). According to Bandura (1997), self-efficacy is a belief that one is capable to organize, execute a course of action, to obtain specific goals. Furthermore, Bandura (1997) expounds that a person’s belief of efficacy influences, what course of action will be taken, the level of resilience, enduring persistence, whether the individual may chose positive or negative thoughts, how much stress can be coped, and the level of accomplishment that may be realized by the individual. For the sake of clarity, self-efficacy is not a construct that has the same meaning as confidence. According to Bandura (1997), someone can be confident of failing but at the same time have strong self-efficacy, and thus, pursue to achieve a certain goal. Self-efficacy is not merely a psychological indicator but is tied with one’s productivity. In addition, studies have shown that high level of self-efficacy is a strong predictor of goal attainment (Kim & Omizo, 2005; Luszczynska, Scholz, & Schwarzer, 2005).

Moreover, studies have shown that self-efficacy scale is a universal construct (Luszczynska, et al., 2005; Narita, Shimonaka, Nakazato, Kawaai, Sato, & Osada, 1995; Scholz, Dona, Sud, and Schwarzer, 2002). In a study conducted by Sholz, Dona, Sud, and Schwarzer (2002) among 19,120 participants from 25 countries, including Belgium, Canada, Japan, and the U.S., findings indicated that self-efficacy is a construct valid in western society and also a construct valid in collective societies. Narita, et al. (1995) showed reliability and validity of the self-efficacy scale when administered to 1,524 Japanese males and females with ages ranging from 13 to 92. In another study, Ito (2006)
examined bicultural self-efficacy of Japanese sojourners and immigrants and found a negative correlation with depression.

In summary, studies of acculturation have been interested in investigating the outcomes of the development of biculturalism. While studies conducted by Bialystok (2007; 2009; 2010) have substantiated the heightened cognitive functioning of bilingual children, more research is necessary to be conducted in adults to see the same effect. Researchers have seen increased tolerance, positivity towards outgroup members, and creativity with college students exposed to multicultural perspectives (Roccas & Brewer, 2002; Leung, et al., 2008). However, past studies on the effects of biculturalism has been on examining individuals entering the US or Canada, and immigrants from Mexico or China were the main population that has been studied. Of importance to this study is the consideration of the effects of biculturalism of Japanese adults.

**Japanese biculturalism**

In spite of the pluralistic views championed by the scientific community, homogeneous proliferation appears to be warranted. When Sneed, Shwartz & Cross, Jr., (2006) examined 57 empirical articles in six top-tier identity status research journals published between 1993 to 2003, they found that non-White ethnic groups were grossly missing from the studies. Seventy-four percent of the samples consisted of White participants. They argued that researchers need to include non-White ethnic subjects in order to examine identity development in our society that is increasingly becoming culturally and linguistically diverse.

Prior to discussing the topics related to operationalizing biculturalism, specifically the Japanese identity and US American identity, it is essential to provide a fundamental
description of the Japanese culture and identity. While it will take another comprehensive review of the research to capture a broader perspective of the Japanese identity, this section will focus on the philosophical foundations, languages, and social concepts that make the Japanese identity unique. Followed by this is the examination of acculturation studies of the Japanese people. The intent is to convey a glimpse of the intricacies and complexities of the Japanese culture and history, and how it may affect the development of a Japanese identity. The purpose of this section is to provide understanding of the Japanese culture to refine the operationalization of Japanese identity. By furthering the understanding of the Japanese culture and identity, the bicultural measurement tool can be specifically tailored to the Japanese participants.

**Japanese Identity.** Prior to delving into the construction of a bicultural identity of a Japanese person, it makes sense to understand the foundations of Japanese identity. As a person immersed in a collectivist society, a Japanese person will naturally develop interpersonal skills distinctive from an individual brought up in an individualistic society specifically of a European-based culture. The collectivist society is described by Cross and Gore (2003) as a society that prioritizes social units and communities such as families and work groups. The individual is embedded in this interdependency and identity is defined by the relationships and social positions. In an individualistic society the individual is not bounded by social norms and even capable of entering and exiting relationships freely. The individual is unique and integrated and maintains an independent relationship with the society.

**Philosophical foundation.** Two main philosophies that are fundamental to the construct of the Japanese culture and society are introduced here. Confucianism and
Buddhism are integral philosophical foundations that deeply permeate the Japanese culture and society which affect the development of its language and social concepts.

Confucianism. In the 17th century, the Confucius teachings were brought forth from China to Japan that would evolve into a code of ethics for one’s way of life, deeply rooted and an integral philosophy for the Japanese mind and customs (Seward, 1972). According to the Confucius teachings, there are Five Constant Relationships: parent and child; husband and wife; elder sibling and junior sibling, elder friend and junior friend, and the ruler and subject (Smith, 1991). All the relationships are inter-related and the act of one has an effect on others. The younger is taught to respect the older, the follower is to be loyal to authority, and filial piety is expected towards one’s parents (Reischauer, 1977).

Confucianism is introduced and studied in the Japanese school system and whether a Japanese person is aware of it or not, has been the underpinnings of the Japanese psyche and secular life. For instance, a ubiquitous term *sempai* and *kohai*, which is translated as senior and junior, stems from the Confucius notion of elder friend and younger friend, in which the older friend is considered to be more experienced and often times act as a person that supports and guides the younger person (*Sempai-kohai*, 1996). *Sempai-kohai* relationship permeates the Japanese society and is seen in educational settings between peers, teachers or administrators and corporate organizations.

Buddhism. According to the online The World Factbook of the Central Intelligence Agency, 71.4% of Japanese are affiliated or belong to some form of Buddhism (“Japan,”2005). On the other hand, Westerners who have studied Japan and have administered surveys to the Japanese came to the conclusion that the Japanese people are “irreligious,” “indifferent to religion,” and even “agnostic.” (Seward, 1972, p.187).
Reischauer and Jansen state in their book *The Japanese Today: Change and Continuity*, “Contemporary Japanese life thus is full of traces of Buddhism as a sort of background melody, but it is not for many a leitmotif in either their intellectual or emotional lives. (1995, p. 207).

However, one can argue that Japanese people may articulate that they are “irreligious” but if much of the society and the structure, the culture and politics were construed under the leitmotif of Buddhism, the influence of Buddhism indubitably permeates the corners of the society. Whether one is aware or not, Buddhism plays a pertinent role in creating the Japanese experience, and thus, Japanese identity. For instance, there are thousands of Buddhist temples across the archipelago in which Japanese people pay a visit on a daily basis or during festivities; during mid-summer the *Obon* festival, which originates from a Buddhist ceremony, is conducted to welcome back the deceased spirits of family ancestors; miniature size temples namely *butsdan* or Buddhist altars are placed in many homes of Japan; the development of language was influenced to some degree by Buddhism; and Buddhist priests perform funerals and the deceased are buried in the grounds of the temples (Seward, 1972; Reischauer & Jensen, 1995). Japanese people may think they are not religious in the Budhhistic sense, but the society is indubitably immersed by the influences of Buddhism.

*Language.* Throughout the course of the Japanese history, both the written language and oral language has developed into complex systems. To understand the process of Japanese identity development, it is essential that some fundamental understanding is discussed.
**Written language.** By the time a student graduate’s high school in Japan, they have mastered writing the two forms of the written Japanese characters, *hiragana* and *katakana*, comprised of 48 characters, and 1945 *kanji* characters (Japanese Language, 2011) or often referred to as Chinese characters. Exposure to Chinese characters began during the sixth to ninth centuries (Reischauer, 1977) and in the course of the Japanese history developed its unique system referred to as *kanji*. Japanese gave the Chinese characters which are hieroglyphics or ideographic, phonetic sounds to it. For instance, the character 金 was given the sound “kin” which means “metal, money or gold.” Through the course of adapting the Chinese characters to the Japanese writing system over hundreds of years, it has become quite complicated. Most kanji has at least two sounds but some can have several and can have different meaning. The above kanji can also be read, “kin, kon, kane, or kana.” *Katakana* are characters, which are angular in appearance (Shibatani, 2011) created in Japan and in current times used mostly for expressing foreign names or terms. One hundred years after the development *katakana*, *hiragana* characters, which are rounded in appearance, were developed but they were not fully standardized as a writing system in Japan until the nineteenth century (Reischauer, 1977). Today the demand for a graduate of high school is the mastery of the three forms of Japanese characters.

**Oral language.** Adding to the complexity of the Japanese written language, the oral language provides another dimension and level of complexity. Unlike the English language, where the speaker holds a dialogue relatively in a neutral and equal standing with the another, in Japanese, there are different levels of oral language according to the person one is engaging in a dialogue. The language an individual talks with his or her parents will differ from the language the individual talks with his or her peers. The
language one talks with the teacher will differ with the language one talks with the emperor. Tamae Prindle (1981) sites in her study, Eleanor H. Jorden’s three types of polite forms of speech in the Japanese oral language. They are 1) polite honorific used to exalt the person in focus, 2) polite humble used to refer to the speaker, family member or someone closely connected to the speaker, and 3) polite-neutral which does not have the intention to exalt or humble but is a simplistic form of politeness.

The following excerpt from the book Polite Lies by Kyoko Mori (1997) provides a descriptive understanding of the complexity of the Japanese language.

In Japanese conversations, the two speakers are almost never on an equal footing: one is senior to the other in age, experience, or rank. Various levels of politeness and formality are required according to the differences: it is rude to be too familiar, but people are equally offended if you are too formal, sounding snobbish and untrusting. Gender is as important as rank. Men and women practically speak different languages; women’s language is much more indirect and formal than men’s.

Until you can find the correct level of politeness, you can’t go on with the conversation: you won’t even be able to address the other person properly (p.11).

**Social concepts.** Over the course of the history, due to influences through the influx of philosophies and ideologies from foreign countries, social concepts, becoming an integral part of human relations, customs, behavior patterns, attitudes, and communication patterns of the Japanese people, were developed (Davies & Ikeno, 2002). Countless social concepts exist in the Japanese culture but for the sake of understanding the uniqueness, subtlety and complexity, few will be introduced here.
Ojigi. In the Asian countries, and of course including Japan, when people meet, the act of greeting is carried on. Unlike a western culture in which two people engage in a handshake, it is customary for Japanese to engage in a bowing gesture. In Japanese this is referred to as *ojigi*. The philosophy behind the simple gesture of an *ojigi* is quite fascinating and how deeply one bows forward depends on various situations (“Greetings,” 1997). In an online webpage *Bijines mana koza* (Business Manner Course), it describes three styles of bowing. The first style *eshyaku* (light bow) is performed by bending the upper torso forward approximately 15 degrees and the line of sight 1.5 meters in front of the person bowing. This form of bowing is performed when an individual walks by another person, serves tea to a guest, or walks in front of another person. A common form of bowing is called *keirei*. In *keirei* the upper torso is bent forward approximately 30 degrees and the line of sight 60 centimeters in front of the person bowing. *Keiri* is performed when arriving to or leaving from work or getting instructions from one’s superior. And finally, in *saikeirei*, which is the most formal form of bowing, an individual is expected to bend the torso 45 degrees in front and the line of sight on the tip of one’s foot. *Saikeirei* is performed when showing deep appreciation, or expressing deep sorrow or even when asking someone to perform a troublesome task on one’s behalf (“Ojigi,” n.d.).

Enryo. The concept of enryo will be more readily understood by illustration. The following is an excerpt from the book *Keys to the Japanese Heart and Soul* (“Enryo,” 1996).

When a guest unwittingly stays at someone’s home until mealtime and the host invites him to a meal, the guest declines out of enryo, but the host insists, saying, “Please *enryo* is unnecessary!” The guest may or may not accept the invitation, depending upon how much *enryo* he decides to
maintain vis-à-vis the host. Again, one may keep silent among certain people or keep one’s distance toward a specific person out of enryo. If one speaks without reserve in a given circle or helps himself uninvited to another person’s material possessions, he may be blamed for not having enryo. Without enryo, one imposes too much of one’s needs and demands upon others. With too much enryo, one can never become close to others (p. 95-97).

Enryo, according to Kitano (1979), is one of the most important norms that shape Japanese behavior. It is a form of modesty in the presence of usually a superior but enryo can be used towards foreign people or in ambiguous situations to avoid being embarrassed or generating anxiety.

Honne to tatemae. Honne to tatemae is a social skill that evolved in the Japanese culture in a ways to avoid direct confrontation and to promote harmonious relationships (“Tatemae,” 1996). Honne is the true intentions or motives while tatemae is the façade of the true intentions. Tatemae is often used to “save face” or a statement that may be incongruent to one’s true feelings and intentions but expresses tatemae to maintain the harmonious relationship.

The Japanese identity can be vastly different from an identity of a person of western origins. The philosophical, religious, social ideology that builds the foundation of the Japanese persona is distinctive and representative of the Japanese society. As one can imagine, the development of a bicultural identity of a Japanese person will not only entail the development of the intricacies of the Japanese society, but the development of another cultural identity that may entail a vastly different culture such as a person from a society
governed by an independent model. In the next section, studies that have examined
Japanese people that have entered other cultures are examined.

**Studies on acculturating Japanese.** As the archipelago culture evolved uniquely
in the course of its history, Japanese people have acquired and developed a unique persona.
While Japan maintains a monolingual approach by teaching Japanese only, challenges are
faced by those who are stationed by their company or migrate to foreign cultures. English
is taught in junior high school as well as high school, the purpose of English education in
Japan is to pass the college entrance examination. The English curriculum is not based on
oral output but on Cognitive Academic Language Proficiency (CALP). CALP is a term
coined by James Cummins (Lessow-Hurley, 1996) which implies reading and writing.
Moreover, CALP in the Japanese educational system is focused on learning grammar. In a
report by the Ministry of Education, in 2011, the number of Japanese residing in an
overseas country was 1,182,557 (a 3.43% increase from the previous year). Of the total
number of overseas residents, 397,937 were in the US which 42.95% and 57.2% were
males and females, respectively (Ministry of Foreign Affairs Japan, 2012, October 4).

Due to the number of growing Japanese migrants, studies of acculturation of the
Japanese people have been a focal point. Most studies on cultural adaptation of Japanese
individuals focus on sojourners (Abe & Wiseman, 1983; Ito, 2006; Matsumoto, LeRoux,
Ratlaff, Tatani, Uchida, Kim, & Araki, 2001; Yashima & Tanaka, 2001), or
returnees/third culture kids (Fry, 2007; Moriyoshi, 2001; Takeuchi, Imahori, & Matsumoto,
2001; Tamura & Furnham, 1993; Yoshida, Matsumoto, Akashi, Akiyama, Furuiye, Ishii, &
Moriyoshi, 2009). A great number of studies of high school students were evident as well
(Chinen & Tucker, 2005; Yashima & Tanaka, 2001). In addition, the topic that prevailed in
the studies was cultural adjustment (Diggs & Murphy, 1991; Matsumoto, et al., 2001; Simeon & Fujiu, 2000; Tamura & Furnham, 1993; Takeuchi, Imahori, & Matsumoto, 2001; Yashima & Tanaka, 2001; Yoshida, et al., 2009). However, studies on Japanese individuals maintaining the Japanese cultural identity as well as developing a new host culture identity were limited. In a book entitled *Negotiating Bilingual and Bicultural Identities: Japanese Returnees Betwix Two Worlds*, Yasuko Kano (2003) reports on a longitudinal narrative study on four Japanese students having experience living in Canada and Japan. Kano argues that bicultural identity development is a long process which entails not only the past and present experiences but future trajectories or anticipations. Like the early studies of ethnic development in the US, Kano focused on the process of bicultural identity development but the effects of biculturalism was not explored.

**Discussion**

Four prominent theories of biculturalism were examined to find a fit for bilingual and bicultural Japanese population of this study. Due to the hierarchical nature of the sphere of biculturalism (Darder, 1991) and the concept of acculturation (Berry, 1992), the theories were not a match. However, the *alternation* (LaFromboise, et al., 1993) and the *integrated biculturalism or merger* (Roccas & Brewer, 2002) concepts do not premise a hierarchical relationship of the cultures but suggest the ability for an individual to alternate between cultures or adopt multiple cultural identities simultaneously, respectively. Following the analysis of the models, the researcher is more aligned to use the alternation model as the best fit theoretical framework for this study.

In the empirical research section, the antecedents and measurement of biculturalism were observed. Studies of acculturation have been interested in defining the factors that
constitute biculturalism. According to the meta-analysis study conducted by Kim and Abreu (2001), behaviors, values, knowledge, and cultural identity were identified as the four basic dimensions. Later, Zea, et al. (2003) confirmed identical dimensions in their study. Kang warns us that further developments of acculturation measurements are pertinent as the lack of orthogonality effects inaccurate measurement of acculturation. Endorsement formats is suggested to yield orthogonality of cultural identities and therefore, according to Kang (2006), are better formats. Furthermore, it is to be noted that Berry, et al., (1986) added by indicating that acculturation scales are not generally created as a standard form of measurement, and that, some variables can be more relevant in one culture and not as relevant in another.

As for effects of biculturalism, the review of the research literature noted that studies have shown positive behavioral shifts in several studies. Roccas and Brewer (2002) showed increase in tolerance and positivity toward outgroup members. Leung, et al., (2008), found more creativity and cognitive-flexibility in college students. In contrast, Kim and Omizo (2005) examined insignificant relationship with self-efficacy and cognitive-flexibility with Asian American college students by using cultural adherence scales. The argument for the inconclusive results provided by the author is of selection bias. In other words, adherence to a culture is not the same as developing a bicultural identity.

**Number of years working in a culture.** Conventional studies of identity development have been mostly focused on an individual who develops an identity through living and navigating in one culture. Based on Erikson’s (1968; 1980) premise of identity development, a person who has a stable and consistent job will more likely be able to have a stable life in a given culture. Unlike an ephemeral situation, with stability and sameness,
an individual will develop an identity that reflects the society and environment that
individual works in. Erikson’s (1968; 1980) implies a sense of time and space in the
developmental process of identity. Identity construction does not happen overnight. It is a
process that involves endurance and embeddedness. Consciously or impassively, when a
person commits to a given community, relates with the context the person is embedded in,
works to generate income to sustain one’s life in the community, and learns the language
and social customs, then identity of that person takes form. Boundaries are determined and
an individual becomes part of his or her community. For this reason, “working” in a
culture is crucial factor in developing one’s identity. On the same token, Marcia (1980)
points out that having an occupation is essential in identity development. In our modern
society, sustenance of one’s life is integrally related to the ability to gain resources through
pecuniary means. Putting aside indigenous cultures that employ bartering systems to
acquire resources, gaining income requires one to hold an occupation. By having a means
to sustain oneself in a modern society, one can maintain stability and sameness.

LaFromboise, et al. (1993) concludes through their literature review that the more
an individual is able to maintain active and effective relationships with both cultures, the
less difficulty the individual will have in acquiring competency in both cultures. While the
phrase “active and effective relationships” were not operationalized in their study, the
assumption in this study is that working in a culture involves establishing active and
effective relationships within a given culture, and thus, potentially a strong factor that
relates with the development of a bicultural identity. The argument is that to operationalize
biculturalism, while other acculturation studies have overlooked this variable, knowing the
number of years working in a given culture is an essential antecedent.
**Operationalizing biculturalism.** In due course the question that follows is how biculturalism can be operationalized. This is a cross-sectional study that uses a survey to examine the relationship with biculturalism with self-efficacy and cognitive flexibility. To conduct this study using a psychometric procedure, prior studies were investigated and three conditions became evident to muster in order to conduct this dissertation research. First, while working adults are investigated in this study, the length of the survey was crucial. To increase response rates as well as completion rates, the number of items could not be too lengthy. Second, as an existing survey is used and adopted to fit the Japanese participants, the questions must be written in a manner when tailored to the Japanese population, the reliability of the instrument must be sustained. Finally, as participants are scattered throughout the US and Japan, an online survey system is a legitimate tool to be utilized in this study.

Given the conditions for the psychometric procedure, the Abbreviated Multidimensional Acculturation Scale, AMAS (Zea, et al., 2003) was used as a protocol of this study. The AMAS operationalizes acculturation by examining the degree to which individuals incorporate the dimensions of the new and heritage culture. It is a relatively non-lengthy survey, e.g. 42 items, and significant reliability and validity measures have been substantiated with the Latino/Latina population. While details of the AMAS will follow in the methods chapter, briefly, the AMAS embodies three dimensions: cultural identity subscale, cultural competence subscale, and language competence subscale. These dimensions have been used and substantiated in prior studies (Berry, et al., 1986; Kim and Abreu, 2001; Zea, et al., 2003). It is to be noted here that although the concept of cultural competence and language competence subscales were incorporated in
this study, the actual items were adjusted to fit the Japanese participants. Furthermore, in lieu of the term cultural competence, the term social interaction is used in this study. Details regarding this change will be discussed in Chapter Three.

**Bicultural navigation model.** As seen in Figure 1, the bicultural navigation model represents the operationalization and effects of biculturalism. The bicultural navigation model framework is a conglomeration of the alternation model (LaFromboise, et al., 1993), acculturation model (Berry, 1992), Erikson’s (1968) identity development, Marcia’s (1980) identity development, concept of cognitive-flexibility (Martin & Rubin, 1995) and self-efficacy (Bandura, 1997). The three main constructs are: bicultural identity, self-efficacy and cognitive-flexibility.

Bicultural identity is a concept from the *alternation* model which implies a status when a person has established two cultural identities and is capable to alternate between the two cultural identities. The individual who has developed two cultural identities is also capable of functioning not only separately but simultaneously. The 14 independent variables (antecedents and exploratory antecedents) are age, gender, education, cultural identity, language proficiency, social interactions, years working in Japan/US, years living in Japan/US, frequency of usage of Japanese/English at work, years lived in a foreign country prior to the age of 18, and Japanese support. The dependent variables are self-efficacy (Bandura, 1997) and cognitive-flexibility (Martin and Rubin, 1995).

In summary, literature was reviewed, and two questions still remain unanswered. First, what are the relationships between biculturalism with self-efficacy and cognitive-flexibility? Bialystok (2007) examined cognitive-flexibility in monolingual and bilingual
individuals, mainly young children or college students. To add to literature, this study will examine monocultural and bicultural individuals while keeping bilingual a constant factor.

Second, what are the relationships between bicultural Japanese adults with self-efficacy and cognitive-flexibility?
CHAPTER 3 - METHODOLOGY

The methods section elaborates on the research design, research contexts, participants, protection of human subjects, instrumentation, procedures, data analyses, and a summary.

Research Design

This study is a survey design with the independent variables of US American and Japanese cultural identity (CIUS/CIJJP), social interactions (SIUS/SIJJP), language proficiency (LPE/LPJ), years working in the US and/or Japan (WORKUS/WORKJP), years living in Japan (LIVEJP), years living in the US (LIVEUS), frequency of usage of Japanese at work in Japan (WJJP), frequency of usage of English at work in the US (WUSE), years living in a foreign country prior to the age of 18 (PRIOR18), support in the Japanese language (SUPPORTJP), education (EDUCATION), age (AGE), and gender (GENDER). The two dependent variables were self-efficacy and cognitive-flexibility. The survey was generated by the Qualtrics online system.

Research Contexts

The six selected international schools that agreed to participate in this study are privately operated international schools that are situated in Tokyo, Japan. As seen in Table 2, four schools were a K to 12th grade programs, two schools pre-school to 12th grade programs, and one school a K to 9th grade program. Based on the schools’ websites, student population at each school ranged from 446 to 1000 students. While five of the schools have been operating for an average of 70.2 years (range 57 to 109 years), one school was founded in the 1800s. International schools in Japan are categorized as “miscellaneous schools” by the School Education Law of Japan. Schools that typically fall
under the same category as international schools include cooking, sewing and driving schools (Boyle, 2012). Regular Japanese schools and trade schools are not included in the same category. It is common for international schools to secure accreditation through western agents such as the Western Association of Schools and Colleges.

Table 2

List of International Schools and General Information

<table>
<thead>
<tr>
<th>Int’l School</th>
<th>Year School Founded</th>
<th>Years Operating in Japan</th>
<th>Program</th>
<th>No. of Students (Apprx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>1902</td>
<td>109</td>
<td>Pre to 12</td>
<td>500 (9\textsuperscript{th} - 12\textsuperscript{th})</td>
</tr>
<tr>
<td>School B</td>
<td>1950</td>
<td>61</td>
<td>K to 12</td>
<td>446</td>
</tr>
<tr>
<td>School C</td>
<td>1954</td>
<td>57</td>
<td>K to 12</td>
<td>1000</td>
</tr>
<tr>
<td>School D</td>
<td>1949</td>
<td>62</td>
<td>K to 12</td>
<td>-</td>
</tr>
<tr>
<td>School E</td>
<td>1949</td>
<td>62</td>
<td>K to 9</td>
<td>450</td>
</tr>
<tr>
<td>School F</td>
<td>1800a</td>
<td>-</td>
<td>Pre to 12</td>
<td>550</td>
</tr>
</tbody>
</table>

Note. K = kindergarten, Pre = Preschool, a = Founded in France. Year founded in Japan was not available. Information was obtained via school websites.
Participants

As seen in Table 3, the participants were 210 adults (141 women, 67 men) English (n=205) and Japanese (n=209) bilingual adults who are alumni of international schools in Tokyo. Of the 210 participants of this study, 12 participants were not Japanese but were included in the study. These participants were included in the study because they cleared all criterions to participate in this study except for possessing Japanese citizenship. In addition, both parents were Japanese and all 12 participants had extensive years working in both Japan and the US. In other words, they were ethnically Japanese without the possession of Japanese citizenship. Information about age was obtained by ranges to increase higher response. As seen in Table 3, the age ranges and numbers were 18-22 (22 women, 6 men), 23-28 (18 women, 12 men), 29-34 (13 women, 6 men), 35-40 (20 women, 7 men), 41-46 (26 women, 10 men), 47-52 (25 women, 16 men), 53-58 (10 women, 8 men), and above 58 (7 women, 4 men). One hundred ninety-eight were born in Japan, 64 in the US, and nine other. The nine individuals responded as “other” were born in France, New Zealand, Spain, and Taiwan. Thirty-six individuals indicated possessing dual citizenship. In terms of education, 111 had 4-year college degrees, 60 graduate degrees, 16 high school, 12 some college, and 11 others.
Table 3

Demographic Information – Sample and Percentage

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td>210 (100)</td>
</tr>
<tr>
<td>Male</td>
<td>69 (33.0)</td>
<td>141 (67.0)</td>
<td>210 (100)</td>
</tr>
<tr>
<td>Female</td>
<td>141 (67.0)</td>
<td>69 (33.0)</td>
<td>210 (100)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td>210 (100)</td>
</tr>
<tr>
<td>18-22</td>
<td>6 (8.7)</td>
<td>22 (15.6)</td>
<td>28 (13.3)</td>
</tr>
<tr>
<td>23-28</td>
<td>12 (17.4)</td>
<td>18 (12.8)</td>
<td>30 (14.3)</td>
</tr>
<tr>
<td>29-34</td>
<td>6 (8.7)</td>
<td>13 (9.2)</td>
<td>19 (9.0)</td>
</tr>
<tr>
<td>35-40</td>
<td>7 (10.1)</td>
<td>20 (14.2)</td>
<td>27 (12.9)</td>
</tr>
<tr>
<td>41-46</td>
<td>10 (14.5)</td>
<td>26 (18.4)</td>
<td>36 (17.1)</td>
</tr>
<tr>
<td>47-52</td>
<td>16 (23.2)</td>
<td>25 (17.7)</td>
<td>41 (19.5)</td>
</tr>
<tr>
<td>53-58</td>
<td>8 (11.6)</td>
<td>10 (7.1)</td>
<td>18 (8.6)</td>
</tr>
<tr>
<td>Above 58</td>
<td>4 (5.8)</td>
<td>7 (5.0)</td>
<td>11 (5.2)</td>
</tr>
<tr>
<td><strong>Household income</strong></td>
<td></td>
<td></td>
<td>210 (100)</td>
</tr>
<tr>
<td>0-29,999</td>
<td>8 (11.6)</td>
<td>10 (7.1)</td>
<td>18 (8.6)</td>
</tr>
<tr>
<td>30,000 – 59,999</td>
<td>8 (11.6)</td>
<td>25 (17.7)</td>
<td>33 (15.7)</td>
</tr>
<tr>
<td>60,000 – 99,999</td>
<td>12 (17.4)</td>
<td>29 (20.6)</td>
<td>41 (19.5)</td>
</tr>
<tr>
<td>100,000 US dollars or more</td>
<td>36 (52.2)</td>
<td>62 (44.0)</td>
<td>98 (46.7)</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
<td>209 (99.5)</td>
</tr>
<tr>
<td>Speak Japanese</td>
<td>69 (100)</td>
<td>140 (99.3)</td>
<td>209 (99.5)</td>
</tr>
<tr>
<td>Speak English</td>
<td>68 (98.6)</td>
<td>137 (97.2)</td>
<td>205 (97.6)</td>
</tr>
<tr>
<td>Other</td>
<td>15 (21.7)</td>
<td>36 (25.5)</td>
<td>51 (24.3)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td>210 (100)</td>
</tr>
<tr>
<td>High school</td>
<td>3 (4.3)</td>
<td>13 (9.2)</td>
<td>16 (7.6)</td>
</tr>
<tr>
<td>Vocational professional</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Some college or AA degree</td>
<td>4 (5.8)</td>
<td>8 (5.7)</td>
<td>12 (5.7)</td>
</tr>
<tr>
<td>4 year degree</td>
<td>42 (60.9)</td>
<td>69 (48.9)</td>
<td>111 (52.9)</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>16 (23.2)</td>
<td>44 (31.2)</td>
<td>60 (28.6)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (5.8)</td>
<td>7 (5.0)</td>
<td>11 (5.2)</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Citizenship</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
<td>67 (97.1)</td>
<td>131 (92.9)</td>
<td>198 (94.3)</td>
</tr>
<tr>
<td>US</td>
<td>19 (27.5)</td>
<td>45 (31.9)</td>
<td>64 (30.5)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (  5.8)</td>
<td>9 (  6.3)</td>
<td>13 (  6.2)</td>
</tr>
<tr>
<td><strong>Perception belief of biculturalism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am Japanese</td>
<td>26 (37.7)</td>
<td>55 (39.0)</td>
<td>81 (38.6)</td>
</tr>
<tr>
<td>I am American</td>
<td>2 (  2.9)</td>
<td>0 (   0)</td>
<td>2 (   1.0)</td>
</tr>
<tr>
<td>I am Japanese AND SOME American</td>
<td>10 (14.5)</td>
<td>18 (12.8)</td>
<td>28 (13.3)</td>
</tr>
<tr>
<td>I am American AND SOME Japanese</td>
<td>4 (  5.8)</td>
<td>3 (  2.1)</td>
<td>7 (   3.3)</td>
</tr>
<tr>
<td>I am Japanese AND American</td>
<td>14 (20.3)</td>
<td>46 (32.6)</td>
<td>60 (28.6)</td>
</tr>
<tr>
<td>I am NOT Japanese and NOT American</td>
<td>4 (  5.8)</td>
<td>7 (  5.0)</td>
<td>11 (  5.2)</td>
</tr>
<tr>
<td>Other</td>
<td>9 (13.0)</td>
<td>12 ( 8.5)</td>
<td>21 (10.0)</td>
</tr>
<tr>
<td><strong>School support in Japanese</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not supportive</td>
<td>5 (  7.2)</td>
<td>13 ( 9.2)</td>
<td>18 ( 8.6)</td>
</tr>
<tr>
<td>Rarely supportive</td>
<td>15 (21.7)</td>
<td>20 (14.2)</td>
<td>35 (16.7)</td>
</tr>
<tr>
<td>Supportive</td>
<td>31 (44.9)</td>
<td>62 (44.0)</td>
<td>93 (44.3)</td>
</tr>
<tr>
<td>Very supportive</td>
<td>18 (26.1)</td>
<td>46 (32.6)</td>
<td>64 (30.5)</td>
</tr>
<tr>
<td><strong>Parent support in Japanese</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not supportive</td>
<td>1 ( 1.4)</td>
<td>5 ( 3.5)</td>
<td>6 ( 2.9)</td>
</tr>
<tr>
<td>Rarely supportive</td>
<td>4 ( 5.8)</td>
<td>7 ( 5.0)</td>
<td>11 ( 5.2)</td>
</tr>
<tr>
<td>Supportive</td>
<td>28 (40.6)</td>
<td>52 (36.9)</td>
<td>80 (38.1)</td>
</tr>
<tr>
<td>Very supportive</td>
<td>36 (52.2)</td>
<td>76 (53.9)</td>
<td>112 (53.3)</td>
</tr>
</tbody>
</table>
The researcher included seven items asking participants’ perception and or belief about who they are. Those who perceived themselves as Japanese were 81 (women 55, men 26), as American 2 (0 women, 2 men), as Japanese AND SOME American 28 (18 women, 10 men), American AND SOME Japanese 7 (3 women, 4 men), Japanese AND American 60 (46 women, 14 men), NOT Japanese and NOT American 11 (7 women, 4 men), and other 21 (12 women, 9 men). The responses “other” included the following: “Americanized Japanese;” “Chinese became Japanese;” “I am a citizen of the world;” “I was born in Japan and raised in the USA; educated in Japan and the USA;” “I am Japanese and some British;” “I am Japanese and some New Zealander;” and “I am Japanese and Spanish, but more Japanese.” Ninety-three of the participants responded to “school support in Japanese” was supportive, and 64 as very supportive. Eighty of the participants responded to “parent support of Japanese” was supportive and 112 as very supportive.

As seen in Table 4, participants lived in Japan with a mean of 27.49 years (SD =13.64), and in the US with mean of 11.37 years (SD =11.85). Participants worked in Japan with a mean of 11.47 years (SD=11.38), and in the US with mean of 6.06 years (SD=4.94). Some lived in a foreign country prior to the age of 18 for a mean of 6.67 (4.94). Total years of international school attendance in Japan were a mean of 9.48 (SD=4.58). To participate in the study individuals had to: 1) possess Japanese citizenship; 2) be self-reported bilingual in English and Japanese; 3) have had attended international schools in Japan; and 4) be 18 years or older.
Table 4

Demographic Information – Means and Standard Deviations

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lived in Japan</td>
<td>27.49 (13.64)</td>
<td>24.26 (12.81)</td>
<td>25.33 (13.15)</td>
</tr>
<tr>
<td>Lived in the US</td>
<td>11.37 (11.85)</td>
<td>11.38 (10.23)</td>
<td>11.37 (10.77)</td>
</tr>
<tr>
<td>Worked in Japan</td>
<td>11.47 (11.38)</td>
<td>7.50 ( 9.44)</td>
<td>8.90 (10.29)</td>
</tr>
<tr>
<td>Worked in the US</td>
<td>6.06 (10.09)</td>
<td>4.76 ( 6.98)</td>
<td>5.19 ( 8.14)</td>
</tr>
<tr>
<td>Lived in a foreign culture prior to the age of 18 for ___ years.</td>
<td>6.67 ( 4.94)</td>
<td>6.85 ( 4.52)</td>
<td>6.81 ( 4.61)</td>
</tr>
<tr>
<td>Total years in Japanese school</td>
<td>2.00 ( 3.42)</td>
<td>2.23 ( 3.57)</td>
<td>2.15 ( 3.51)</td>
</tr>
<tr>
<td>Total years in International School in Japan</td>
<td>9.48 ( 4.58)</td>
<td>8.10 ( 4.52)</td>
<td>8.56 ( 4.57)</td>
</tr>
<tr>
<td>Total years in International School in a foreign country</td>
<td>0.76 ( 2.26)</td>
<td>1.22 ( 2.59)</td>
<td>1.07 ( 2.49)</td>
</tr>
<tr>
<td>Total years in Japanese school in a foreign country</td>
<td>0.16 ( 0.92)</td>
<td>0.50 ( 2.17)</td>
<td>0.39 ( 1.86)</td>
</tr>
<tr>
<td>Total years in school in the US</td>
<td>1.63 ( 3.12)</td>
<td>2.25 ( 3.23)</td>
<td>2.05 ( 3.20)</td>
</tr>
</tbody>
</table>
As indicated in Table 5, the top three professions of the women participants were educational services, professional or technical services, and finance or insurance. Men had careers in information, manufacturing, arts, entertainment, or recreation.

Table 5

*Demographic Information – Sample Number and Percentages of Industry Employed*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N= 210 (valid 209)</td>
<td></td>
</tr>
<tr>
<td>Industry Employed (Highest Five)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>10 (14.5)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8 (11.6)</td>
</tr>
<tr>
<td>Arts, entertainment or recreation</td>
<td>7 (10.1)</td>
</tr>
<tr>
<td>Finance or insurance</td>
<td>7 (10.1)</td>
</tr>
<tr>
<td>Educational Services</td>
<td>6 ( 8.7)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Educational Services</td>
<td>26 (18.4)</td>
</tr>
<tr>
<td>Professional, scientific or technical services</td>
<td>14 ( 9.9)</td>
</tr>
<tr>
<td>Finance or insurance</td>
<td>13 ( 9.2)</td>
</tr>
<tr>
<td>Health Care or Social Assistance</td>
<td>13 ( 9.2)</td>
</tr>
<tr>
<td>Other services</td>
<td>13 ( 9.2)</td>
</tr>
</tbody>
</table>
**Protection of Human Subjects**

All participants were ensured voluntary participation through the Informed Consent Form. All research materials were kept confidential in a secure site, and used only for research purposes. To preserve anonymity, data was written in such a way, e.g. number or code given to participants, that individual differences will not disclose participant’s identity. Furthermore, only group data (information consistent with all participants) will be used in any publication of the results of this study. During the research process, the records are stored in a safe location to maintain security. When the research is over, all paper documents and online surveys will be destroyed.

**Instrumentation**

The instrument in this study is referred to as the *Cultural Navigation questionnaire*, CNQ (Appendix A). The CNQ is constituted from three scales, the cultural navigation scale (CNS), self-efficacy scale (Bandura, 1997), and cognitive-flexibility scale (Martin & Rubin 1995). In addition, CNQ integrates questions to obtain demographic information. CNS attempts to operationalize biculturalism by creating a composite variable from the following independent variables: cultural identity, social interactions, and language proficiency. Other variables, years living in a US and/or Japan (Sonderegger & Barrett, 2004), years working in the US and/or Japan, frequency of usage of Japanese and English at work, years living in a foreign country prior to the age of 18, support in the Japanese language, education (Grotevant, 2012; Kalakoski & Nurmi, 1998), age, and gender are predictors used to answer the research questions. Studies have shown that education (Grotevant, 2012; Kalakoski & Nurmi, 1998), interpersonal relationships (Grotevant, 2012), and number of years living a new culture (Sonderegger & Barrett, 2004) are also
domains that are frequently seen as determinants of identity formation. Self-efficacy and cognitive-flexibility are the two dependent variables. This section will provide information of the instrument including a pilot study that was conducted to show reliability and validity of the instrument.

**Description of scales.** The following represents the scales and the correlating item numbers.

Demographics 1 – 7; 20 – 22; 92 – 106
Cultural Identity 39 - 44; 52 – 57
Social Interaction 23 – 26
Language proficiency 66 – 71
Language frequency 45 - 51; 58 – 65
Cognitive-flexibility 8 – 19; 27 - 38
Self-efficacy 72 - 91

**Cultural Navigation Scale (CNS).** The 24-item CNS is a composite variable consisted of 12-items from the Cultural Identity subscale (CIS) (Zea, Asner-Self, Birman, & Buki, 2003), and 6-items on language proficiency, 4-items from social interaction, 2-items regarding total number of years working in Japan and the U.S. The scale intends to quantify to what degree an individual is acculturated to a Japanese cultural identity, American cultural identity, or both. This scale was inspired and generated by reviewing the literature on acculturation and biculturalism. Specifically, the Cultural Identity subscale and two acculturation scales used in ethnic studies conducted with the Japanese population by Chinen and Tucker (2005) and Ito (2006) were guiding protocols. Table 6 indicates the psychometric properties of the major variables in this study.
Table 6

*Psychometric Properties of the Major Study Variables*

<table>
<thead>
<tr>
<th>variables</th>
<th>n</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>α</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural identity</td>
<td>210</td>
<td>12</td>
<td>2.78</td>
<td>0.56</td>
<td>.86</td>
<td>1-4, 1.4-4.0</td>
</tr>
<tr>
<td>Language proficiency</td>
<td>210</td>
<td>6</td>
<td>3.54</td>
<td>0.43</td>
<td>.72</td>
<td>1-4, 2.3-4.0</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>209</td>
<td>4</td>
<td>3.01</td>
<td>0.64</td>
<td>.65</td>
<td>1-4, 1.0-4.0</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>210</td>
<td>20</td>
<td>3.26</td>
<td>0.44</td>
<td>.95</td>
<td>1-4, 1.4-4.0</td>
</tr>
<tr>
<td>Cognitive-flexibility</td>
<td>210</td>
<td>24</td>
<td>4.78</td>
<td>0.51</td>
<td>.89</td>
<td>1-6, 3.5-6.0</td>
</tr>
</tbody>
</table>

*Note. Variables represent total of Japan and US items*
The cultural identity subscale (CIS) is anchored on a 4-point scale ranging from 1 (Strongly disagree) to 4 (Strongly agree) and total points possible range from 6 to 24 points for each Japanese and American identity. A sample item reads, “I think of myself as being Japanese/American.” Originally the authors adopted the AMAS from the American Identity Questionnaire (Phinney & Devich-Navarro, 1997) to assess ethnicity. In this study, the questions were adjusted to accommodate both Japanese and American identity constructs. For instance, an item would read “I think of myself as being Japanese.” The subscale differentiates participants into Japanese or American identity. Zea, et al. (2003) reported coefficient alphas of .96 and .90 for U.S. acculturation and Latino/Latina acculturation of college students, respectively. In this study, the combined cultural identity subscales had high reliabilities, Cronbach’s α = .86.

Social interaction items are consisted of a 4-point scale ranging from (Strongly disagree) to 4 (Strongly agree) and total points possible range from 4 to 16 points. A sample item reads, “I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Japanese/Americans.” This scale assesses the level of cultural participation in both the Japanese and American communities. Instead of phrasing the subscale cultural competency as it was in the AMAS, the phrase social interaction (Phinney, 1992; Chinen & Tucker, 2005) was employed in this study because the items used were more reflective of one’s participation or interaction with the society than merely the possession of knowledge. For instance, the cultural competency subscale in the AMAS asks, “How well do you know popular actors and actresses from your native culture?” On the other hand, Chinen and Tucker employed questions addressing individual’s level of participation or involvement (social interaction) in the
culture. An example of the question is as follow, “I currently or have participate(-d) in Japanese cultural practices such as special food, music or customs.” Going back to Erikson’s (1968; 1980) definition of identity development, it is about experiencing sameness and continuity. Knowing about the culture and practicing aspects of the culture are vastly different experiences; the latter being more substantial. The items for the social interaction subscale were adopted from Phinney’s (1992) Multigroup Measure of Ethnic Identity scale used in Chinen and Tucker’s (2005) study with the Japanese participants. Correlation alphas were not available from their study. In this study, the combined social interaction subscales had moderate reliabilities, Cronbach’s α = .65.

Language proficiency items have two components. One examines proficiency that consists of 3-items anchored on a 4-point scale ranging from 1 (Strongly disagree) to 4 (Strongly agree) and total points possible range from 3 to 12 points for each Japanese and English proficiency. A sample Japanese proficiency item reads, “I can read Japanese newspapers.” A sample English proficiency item read, “I can read English on a college level.” This scale assesses reading, writing and oral proficiency in both English and Japanese. In lieu of using the items on the AMAS, the items used were inspired by studies conducted by Ito (2006) and Chinen and Tucker (2005) with Japanese bilinguals. The rationale for this was based on the understanding delineated in the section of Japanese identity of this chapter. The multileveled interpersonal relationships that affect one’s behavior and language could not be addressed simply by adopting the AMAS. For instance, certain questions create some challenges and confusion for a Japanese to answer the question, “How well do you speak your native language on the phone?” Depending on who is on the other side of the phone whether it is your family, friend or employer calling,
the nature of the response will differ. A bilingual Japanese individual may think he or she is proficient talking with a friend on the phone, but may perceive to lack proficiency in talking the polite form of Japanese to the employer. In this study, the combined language proficiency subscales had high reliabilities, Cronbach’s α = .72.

The second component of language proficiency examines frequency. The rationale for this is based on the level of cultural identity development. For instance, if a Japanese person works in the US, but engages in daily conversations in Japanese with only Japanese people, the likelihood that this individual will develop an American identity will seem sparse. Therefore, for a Japanese person to develop an American identity in the US, the individual must engage in speaking English on a daily basis which in essence implies that that individual is immersed in the American culture. The language frequency questions consisted of 6-items anchored on a 5-point scale ranging from 1 (never) to 5 (always) and total points possible range from 6 to 30 points for each Japanese and English frequency while working in Japan or the US. A sample Japanese frequency items reads, “Of the total number of years working in Japan, I spoke/speak Japanese.” A sample English frequency item read, “Of the total number of years working in the US, I spoke/speak English.”

The subsequent three predictor variables are related to the number of years living in the given cultures. However, the variables are given more contextualized meaning. Along with merely examining the years living in Japan or the US, this study is concerned with the number of years working in both cultures. In addition, number of years living in a culture prior to the age of 18 is a variable of interest. The rationale for observing number of years living in a culture is based on Erikson’s (1968; 1980) identity development. Number of years working in an occupation is based on Marcia’s (1980) theory of identity development.
However, years’ living in a foreign culture prior to the age of 18 is based on the researcher’s observations while attending and teaching at international schools in Tokyo. These students attending international schools in Tokyo that have lived in a foreign culture prior to the age of 18 were more likely to attend colleges in the US or work in the US as an adult more than students that have had no experience living abroad prior to the age of 18. Potentially this may be a good predictor for biculturalism. Exposure to a foreign culture in one’s youth may affect the development of biculturalism.

In addition, a component about culturally relevant pedagogy experienced in elementary and secondary school years that will be incorporated. This factor has been shown to be pertinent that may affect bicultural competence development (Nieto, 2000; Pang, 2005). Research indicates that maintenance of ethnic identity increases achievement in school (Darder, Baltodano, & Torres, 2009). Lastly, education, age and gender were used as predictor variables.

To maintain orthogonality of acculturation (Kang, 2006) cultural identity, language competence, social interaction, and Japanese support uses endorsement scale formats. As the predictor variables related to number of years working and living in Japan were interval values, they were not combined in a composite variable to operationalize biculturalism but were used for answering research questions 2, 3 and 4. Nevertheless, based on Kang’s study (2006) introduced earlier, the Cultural Navigation Scale (CNS), a composite variable that attempts to operationalize biculturalism in this study, uses endorsement items exclusively.

**Self-efficacy scale.** The self-efficacy scale is a self-report measure of the belief that one is capable to organize, execute a course of action, to obtain specific goals (Bandura,
The 10-item scale is anchored on a 4-point scale ranging from 1 (Not at all true) to 4 (Exactly true), and total points possible range from 10 to 40 points for each while living in Japan and in the US. A sample item reads, “I can solve most problems if I invest the necessary effort.” Self-efficacy scale measures an individual’s capacity to organize and conduct given tasks to achieve a successful outcome. While the self-efficacy scale yields typical internal consistencies between coefficient alpha of .75 and .91, in Scholz, et al.(2002) study, the total alpha for 19,120 respondents was .86 (e.g. U.S.A: N=1594, alpha = .87; Japan: N = 430, alpha, .91). Construct validity was confirmed as well showing unidimensional measures of self-efficacy. Other studies have shown internal consistency and construct validity of the scales with the Japanese population (Narita, et al., 1995; Schwarzer, et al., 1997). The mean of the total combined scores of self-efficacy in Japan and the U.S. will be used for statistical analysis. In this study, self-efficacy scale had high reliabilities, Cronbach’s α = .95.

**Cognitive-flexibility scale.** The cognitive-flexibility scale is a self-report of an individual’s awareness that multiple options are available in any given situations and the individual’s ability to be flexible to adapt to various situations (Martin & Rubin, 1995). The 12-item scale is anchored on a 6-point Likert scale ranging from 1 (Strongly disagree) to 6 (Strongly agree), and total points range from 12 to 72 points for each while living in Japan and in the US. A sample item reads, “In any given situation, I am able to act appropriately.” Martin and Rubin (1995) conducted two studies with college students and yielded a Cronbach’s alpha of .76 and .77. Construct validity was confirmed by showing positive relationship with ratings of communication flexibility and negative relationship with rated rigidity. Concurrent validity was established with measures of interpersonal
attentiveness, perceptiveness, and responsiveness. Moreover, positive correlation was seen in interaction involvement and self-monitoring and a negative correlation with unwillingness to communicate. The mean of the total combined scores of cognitive-flexibility in Japan and the U.S. will be used for statistical analysis. In this study, cognitive-flexibility had high reliabilities, Cronbach’s α = .89.

**Demographic information.** In addition to the above variables, 24 items asked information in the survey that gave the characteristics of: age, gender, birth place, citizenship, Japanese support from parents and from school, education, parents’ education, income, and industry of employment.

**Procedures**

Initially, headmasters and headmistresses of seven international schools in Tokyo and two in the outskirts were contacted via email soliciting for their support. Appointments to meet with the headmasters and headmistresses were made with five schools, one school agreed to post a solicitation letter on their official page on Facebook. The reasons for not participating in the study of the remaining three schools were: One school indicated that due to the many requests they receive to conduct research, the school had developed a policy that any research involving the school or the alumni would only be conducted by researchers who are alumni of the school; another school questioned the confidentiality of the study; and, one school did not respond to the several emails of solicitation that was sent.

The researcher met with the headmasters and headmistresses at the school site in Tokyo, and provided a 15 minute presentation describing the purpose of the study, the research procedure, confidentiality issue, IRB approval, introduction of the dissertation
committee members, timeline, research and educational benefits, and information about the researcher. After the initial presentation, a primary person of contact was introduced to the researcher, and subsequent exchanges were conducted through this individual. The individual usually represented the development or the alumni relations office. These individuals hereafter will be referred to as school officers.

After the template of the solicitation letter (Appendix B) was provided to the school officers, the school officers generated a mass email to alumni that met the criterion. The emails included a link which gave participants’ access to the Cultural Navigation Questionnaire created online via Qualtrics. Once in the survey, participants began the survey by reading an informed consent form, and were asked to agree or disagree with the consent form. Those who concurred to the consent form were directed to another page that asked to confirm their age. Participants 18 or older were admitted to continue the survey.

Following the second request to the school offices to send mass email to the alumni, a solicitation letter was posted on several Facebook group sites pertaining to international schools in Japan. As a third phase of the data collection process, emails were sent out to the researchers friends, colleagues and acquaintances asking help to forward the solicitation letter to prospective participants.

**Planned Data Analysis**

In the preliminary analyses, as the social interaction subscale was just below the cutting score of .70 an exploratory factorial analysis was performed to examine a more powerful set of variables, not only for the social interaction subscale, but for the others as well. An exploratory factorial analysis was conducted to find the factors that best represent the cultural navigation scale.
In all analyses, self-efficacy and cognitive-flexibility were used as dependent variables. Question one was evaluated by performing Pearson product-moment correlation with the dependent variables. Question two was tested by running a Linear Multiple Regression with number of years working in Japan and US as the two independent variables. Question three was assessed by conducting an Analysis of Variance, a two-by-two factorial design with high and low number of years working in Japan and the US as independent variables. Question four was tested by running a Multiple Regression with all the independent variables.

**Pilot Study**

Prior to administering the instrument to the participants, a pilot study was conducted to test the reliability and validity of the instrument with individuals (n= 55) mainly living in the Southern California area who held the required qualifications to take part in this study. After the draft of the instrument was completed, the researcher met with four experts to obtain feedback. The four experts consisted of a dissertation chair, a professor of statistics, an Institutional Review Board specialist, and a doctoral student who has experience developing surveys as well as experience living in both Japan and the U.S. Based on the input from the experts, the following changes were addressed in the survey: Maintaining consistency of items, e.g. proper noun “I” was used throughout the survey; Using short Likert scales for self-created items, e.g. Of the total number of years working in Japan, I spoke/speak Japanese – five point scale was used and maintaining original scaling format for self-efficacy and cognitive-flexibility; Establishing proper sentence structure and grammar; Rephrasing of items for clarity and simplicity; and, eliminating superfluous phrases, e.g. the word “somewhat” was eliminated from “somewhat agree.”
Subsequently, the survey was given to two adults, one 18 and the other 50 years of age to test for the duration for the participants to complete the survey. Both participants completed the survey within 15 minutes.

Prior to running a reliability and validity test, reverse coding was performed for the items that were reversed phrased on the self-efficacy and cognitive-flexibility scales. Missing data was replaced with mean and coded (999) prior to the analysis. The internal consistency reliability yielded the following correlation coefficients: Japanese cultural identity .91, US American cultural identity .94, social interaction .93, Japanese language proficiency .90, and English proficiency .94. To establish concurrent validity, first a hypothesis was generated. The hypothesis was self-efficacy and cognitive-flexibility will correlate positively with the cultural navigation scale. The pilot study yielded a high positive correlation coefficient of .76.

Chapter Four of the study represents the results of the four main research questions of the study.
CHAPTER 4 - RESULTS

This chapter examines the results of the statistical analysis for each research question. Initially, a preliminary analysis is provided that examined the Cronbach Alpha of the major study variables. Following this, an exploratory factor analysis was run with the CNS items to find the best factors that can be utilized to create a composite variable for the CNS. The chapter provides the main analysis and the results of the four research questions.

Cronbach Alpha of major study variables

Prior to answering research question 1, a composite variable for the Cultural Navigation Scale (CNS) was developed. As was indicated in chapter two, CNS was conceptualized, modified and developed to operationalize biculturalism in this study. To examine the internal consistency of the three subscales of the CNS, 12-item cultural identity, 6-item language proficiency and 4-item social interaction, a Cronbach’s coefficient alpha was performed (see Table 6). The results yielded the following coefficient alphas: cultural identity = .86 (M = 2.78, SD = 0.56); language proficiency = .72 (M = 3.54, SD = 0.43) and social interaction = .65 (M = 3.01, SD = 0.64). Generally, a reliability coefficient above .70 is considered desired.

Exploratory Factor Analysis of Cultural Navigation Scale (CNS) items

As the social interaction (.65) fell short of the cutoff point (.70), further analysis using an exploratory factor analysis was conducted to cross-examine the best parameter estimates. A principal component method with varimax rotation was used. Twenty-two variables (CIJP1 to SIUS2) listed in Table 7 were entered. From the 22 variables, five factors emerged in the factor analysis with an eigenvalue of more than one; they accounted
for 73% of the variance. When analyzing the varimax rotation results, items at the .55 level or above were retained to form factors. The first factor was labeled Japanese Cultural Identity as the items reflected establishing identification with the Japanese culture. Examples of items were: 1) I think myself as a being Japanese (.79) and 2) I feel good about being Japanese (.85). The second factor was labeled US American Cultural Identity as the items reflected establishing identification with the US culture. Examples of items were: 1) I think of myself as being American (.86) and 2) I feel good about being American (.92). The third factor was labeled Japanese Language Proficiency as the items reflected an individual’s language proficiency level in Japanese. Examples of items were: 1) I can read Japanese newspapers (.88) and I can write Japanese essays expressing my personal opinions (.87). The fourth factor was labeled English Language Proficiency as the items reflected an individual’s language proficiency level in English. Examples of items were: 1) I can read English at a college level (.92) and I can write English at a college level (.92). Finally, the fifth factor was labeled, Total Social Interaction as the items reflected the total of both social interaction in Japan and the US. Examples of items were: 1) I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Japanese (.57) and I currently or have participate(d) in American cultural practices such as special food, music, or customs (.75). Table 8 indicates all the labels, loadings and items.
Table 7

Factor Loadings for Exploratory Factor Analysis With Varimax Rotation of Cultural Navigation Scale Items

<table>
<thead>
<tr>
<th>Scale</th>
<th>Japanese Cultural Identity</th>
<th>American Cultural Identity</th>
<th>Japanese Language Proficiency</th>
<th>English Language Proficiency</th>
<th>Social Interaction – both Japan and US</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIJP1</td>
<td><strong>0.79</strong></td>
<td>-0.10</td>
<td>0.20</td>
<td>0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>CIJP2</td>
<td><strong>0.85</strong></td>
<td>0.03</td>
<td>-0.04</td>
<td>0.09</td>
<td>0.01</td>
</tr>
<tr>
<td>CIJP3</td>
<td><strong>0.83</strong></td>
<td>0.09</td>
<td>0.02</td>
<td>-0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>CIJP4</td>
<td><strong>0.74</strong></td>
<td>-0.02</td>
<td>0.12</td>
<td>-0.07</td>
<td>0.11</td>
</tr>
<tr>
<td>CIJP5</td>
<td><strong>0.87</strong></td>
<td>0.08</td>
<td>0.14</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>CIJP6</td>
<td><strong>0.86</strong></td>
<td>0.05</td>
<td>-0.10</td>
<td>0.12</td>
<td>0.00</td>
</tr>
<tr>
<td>CIUS1</td>
<td>-0.01</td>
<td><strong>0.86</strong></td>
<td>-0.15</td>
<td>0.09</td>
<td>0.15</td>
</tr>
<tr>
<td>CIUS2</td>
<td>0.08</td>
<td><strong>0.92</strong></td>
<td>-0.01</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>CIUS3</td>
<td>0.03</td>
<td><strong>0.90</strong></td>
<td>-0.02</td>
<td>0.00</td>
<td>0.06</td>
</tr>
<tr>
<td>CIUS4</td>
<td>-0.01</td>
<td><strong>0.60</strong></td>
<td>-0.28</td>
<td>0.20</td>
<td>0.13</td>
</tr>
<tr>
<td>CIUS5</td>
<td>0.01</td>
<td><strong>0.92</strong></td>
<td>-0.09</td>
<td>0.06</td>
<td>0.02</td>
</tr>
<tr>
<td>CIUS6</td>
<td>0.05</td>
<td><strong>0.92</strong></td>
<td>-0.01</td>
<td>0.04</td>
<td>0.10</td>
</tr>
<tr>
<td>LPJ1</td>
<td>0.07</td>
<td>-0.17</td>
<td><strong>0.88</strong></td>
<td>0.04</td>
<td>-0.02</td>
</tr>
<tr>
<td>LPJ2</td>
<td>0.06</td>
<td>-0.11</td>
<td><strong>0.87</strong></td>
<td>-0.04</td>
<td>-0.05</td>
</tr>
<tr>
<td>LPJ3</td>
<td>0.13</td>
<td>-0.04</td>
<td><strong>0.81</strong></td>
<td>0.15</td>
<td>0.04</td>
</tr>
<tr>
<td>LPE1</td>
<td>0.07</td>
<td>0.09</td>
<td>0.06</td>
<td><strong>0.92</strong></td>
<td>0.10</td>
</tr>
<tr>
<td>LPE2</td>
<td>0.01</td>
<td>0.04</td>
<td>-0.01</td>
<td><strong>0.92</strong></td>
<td>0.11</td>
</tr>
<tr>
<td>LPE3</td>
<td>0.08</td>
<td>0.16</td>
<td>0.08</td>
<td><strong>0.87</strong></td>
<td>0.06</td>
</tr>
<tr>
<td>SIJ1</td>
<td>0.06</td>
<td>-0.04</td>
<td>0.42</td>
<td>-0.05</td>
<td><strong>0.57</strong></td>
</tr>
<tr>
<td>SIJ2</td>
<td>0.10</td>
<td>0.07</td>
<td>0.11</td>
<td>0.01</td>
<td><strong>0.78</strong></td>
</tr>
<tr>
<td>SIUS1</td>
<td>0.00</td>
<td>0.31</td>
<td>-0.12</td>
<td>0.18</td>
<td><strong>0.62</strong></td>
</tr>
<tr>
<td>SIUS2</td>
<td>0.05</td>
<td>0.16</td>
<td>-0.25</td>
<td>0.20</td>
<td><strong>0.75</strong></td>
</tr>
</tbody>
</table>

Note. Factor loading > .550 are in boldface. CIJP = Japanese Cultural Identity; CIUS = US American Cultural Identity; LPJ = Japanese Language Proficiency; LPE = English Language Proficiency; SIJ = Social Interaction in Japan; SIUS = Social Interaction in the US.
Table 8

*Cultural Navigation Scale (CNS) Factors: Items and Factor Loading*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor label</th>
<th>Loading</th>
<th>Item #</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Japanese Cultural Identity</td>
<td>.79</td>
<td>39</td>
<td>I think of myself as being Japanese.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I feel good about being Japanese.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.83</td>
<td>41</td>
<td>Being Japanese plays an important part in my life.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.74</td>
<td>42</td>
<td>I feel that I am part of Japanese culture.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.87</td>
<td>43</td>
<td>I have a strong sense of being Japanese.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.86</td>
<td>44</td>
<td>I am proud of being Japanese.</td>
</tr>
<tr>
<td>2</td>
<td>US American Cultural identity</td>
<td>.86</td>
<td>52</td>
<td>I think of myself as being American.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.92</td>
<td>53</td>
<td>I feel good about being American.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.90</td>
<td>54</td>
<td>Being American plays an important part in my life.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.60</td>
<td>55</td>
<td>I feel that I am part of American culture.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.92</td>
<td>56</td>
<td>I have a strong sense of being American.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.92</td>
<td>57</td>
<td>I am proud of being American.</td>
</tr>
<tr>
<td>3</td>
<td>Japanese Language Proficiency</td>
<td>.88</td>
<td>66</td>
<td>I can read Japanese newspapers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.87</td>
<td>67</td>
<td>I can write Japanese essays expressing my personal opinions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.81</td>
<td>68</td>
<td>I can speak politely in Japanese, e.g. using <em>keigo</em> to people I am not familiar</td>
</tr>
<tr>
<td>4</td>
<td>English Language Proficiency</td>
<td>.92</td>
<td>69</td>
<td>I can read English at a college level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.92</td>
<td>70</td>
<td>I can write English at a college level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.87</td>
<td>71</td>
<td>I can express my opinions clearly in English.</td>
</tr>
<tr>
<td>5</td>
<td>Total Social Interaction</td>
<td>.57</td>
<td>23</td>
<td>I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Japanese.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.78</td>
<td>24</td>
<td>I currently or have participate(-d) in Japanese cultural practices such as special food, music, or customs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.62</td>
<td>25</td>
<td>I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Americans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.75</td>
<td>26</td>
<td>I currently or have participate(-d) in American cultural practices such as special food, music, or customs.</td>
</tr>
</tbody>
</table>
In summary, factor loadings showed five factors that corresponded to the actual subscales. After running exploratory factor analysis, the cultural identity subscale resulted to be better variables by creating two subscales, Japanese cultural identity and US American identity. Language proficiency was also divided into two subscales, Japanese language proficiency and English language proficiency. Social interaction was considered a better variable when both Japanese and US American social interaction were combined.

All five factors are used as subscales of the CNS to answer the first question. A Pearson Correlation is conducted to find the relationship of CNS with the dependent variables. For question four, each factor is entered separately among other predictor variables in a multiple regression. More details will follow in the following main analysis section.

**Main Analysis**

**Question 1.** What is the relationship of bicultural identity to self-efficacy and cognitive-flexibility? To answer this question, the following statistical procedures were undertaken.

The cultural Navigation Scale (CNS) consisted of the five factors: 1) Japanese cultural identity (CIJP), 2) US American cultural identity (CIUS), 3) Japanese language proficiency (LPJ), 4) English language proficiency (LPE), and 5) Total social interaction (SITOTAL). Interval numbers were used for WORKJP, WORKUS, LIVEJP, LIVEUS, and PRIOR18 (see Appendix A; items 1 to 5 and 22). WJJPN and WUSE variables were anchored in a 5-point scale ranging from 1 (never) to 5 (always) and total possible range from 6 to 30 points for each variable (see Appendix A; items 46, 48, and 50 (WJJPN); items 60, 62, and 64 (WUSE). Note items 47, 49, 51, 61, 63 and 65 were not used in
analysis). SUPPORTJP was a composite variable of items 100 and 101 which asked about support by schools and parents in learning Japanese. Both items were added and the mean score was used. Each item was anchored in a 4-point scale ranging from 1 (Not supportive) to 4 (Very supportive). For description of the variables refer to the glossary.

**CNS with Cognitive-flexibility.** A Pearson product-moment correlation was conducted to assess the relationship between CNS and cognitive-flexibility. Preliminary analyses showed the relationship to be linear with both variables normally distributed, as assessed by Shapri-Wilk’s test (p > .05). There was one outlier in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from edge of the box. The outlier was removed from analysis. As indicated in Table 9, results of analysis indicate a moderate positive correlation between CNS and cognitive-flexibility, r(206) = .43, p < .001.

Table 9

*Summary of Correlations, Means, and Standard Deviations for Scores on the Cultural Navigation Scale (CNS) with Cognitive-Flexibility*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cognitive-Flexibility</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS</td>
<td>.43***</td>
<td>15.60</td>
<td>1.75</td>
</tr>
</tbody>
</table>

*Note. CNS = Cultural Navigation Scale; CNS = Cultural Identity subscale, Language Proficiency subscale, and Social Interaction subscale. *** p < .001.*
**CNS with Self-efficacy.** A Spearman’s Rank Order correlation was utilized to assess the relationship between CNS and self-efficacy. Preliminary analysis showed the relationship to be monotonic, as assessed by visual inspection of a scatterplot. As indicated in Table 10, results of analysis indicated a moderate positive correlation between CNS and self-efficacy, $r_s (206) = .41$, $p < .001$.

Table 10

**Summary of Correlations, Means, and Standard Deviations for Scores on the Cultural Navigation Scale (CNS) with Self-Efficacy**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Self-Efficacy</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS</td>
<td>.41***</td>
<td>15.60</td>
<td>1.75</td>
</tr>
</tbody>
</table>

*Note. CNS = Cultural Navigation Scale; CNS = Cultural Identity subscale, Language Proficiency subscale, and Social Interaction subscale. *** $p < .001$.

Results indicate a moderate positive correlation between CNS with cognitive-flexibility and self-efficacy. As seen in Table 8, the cultural identity items were focused on one’s perception of the related cultural identity. For instance an individual who relates strongly with the Japanese identity will strongly agree with items such as “I have a strong sense of being Japanese” or “I am proud of being Japanese.” Their perception of being
Japanese is strong. In vice versa, this is said of the American identity as well. As for total social interaction, the items were concerned more with the substantive experiences the individuals had with the two cultures. For instance, the items posed, “I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Japanese/Americans.” While individual items were not analyzed, in this study we can assume that those who perceived themselves as Japanese and American as well as having tangible experiences in Japan and the US had higher cognitive-flexibility and self-efficacy. This suggests a plausible positive relationship between bicultural identity and higher cognitive-flexibility and self-efficacy skills.

**Question 2.** How does bicultural identity (variable used: number of years working in the US or Japan) predict self-efficacy and cognitive-flexibility? To answer this question, the following statistical procedures were undertaken.

A stepwise linear multiple regression was conducted to examine the relationship of the two predictor variables, WORKJP and WORKUS with the two dependent variables, self-efficacy and cognitive-flexibility. As seen in Table 1, for cognitive-flexibility, both WORKUS (t = 1.98, p < .05) and WORKJP (t = 3.12, p < .01) were statistically significant. Examination of the Beta, the most powerful predictor was WORKUS (Beta = .22) followed by WORKJP (Beta = .14). Moreover, by examining the R square, 5.0% in variation of cognitive-flexibility can be explained by the two variables: WORKUS and WORKJP.
Multiple Regression for Cognitive-Flexibility as a Function of Number of Years Working in Japan and Number of Years Working in the US

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive-flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of years working in the US (WORKUS)</td>
<td>.22**</td>
<td>3.12</td>
<td>.002</td>
</tr>
<tr>
<td>Number of years working in Japan (WORKJP)</td>
<td>.14*</td>
<td>1.98</td>
<td>.049</td>
</tr>
<tr>
<td>R</td>
<td>.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>5.57**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sig f</td>
<td>.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>209</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 12, for self-efficacy, WORKUS (t = 3.24, p < .01) yielded statistical significance. However, inspection of the regression output, WORKJP was no longer statistically significant at the final step (t = -.087, p > .05). Examination of the Beta, WORKUS (Beta = .22) was the most powerful predictor. Moreover, by examining the R square, 5.0% in variation of self-efficacy was associated with WORKUS.
Table 12

*Multiple Regression for Self-Efficacy as a Function of Number of Years Working in Japan and Number of Years Working in the US*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of years working in the US (WORKUS)</td>
<td>.22***</td>
<td>3.24</td>
<td>.001</td>
</tr>
<tr>
<td>R</td>
<td>.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>10.53***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sig f</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>209</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***p<.001

While both WORKUS and WORKJP entered the regression, WORKUS was the stronger predictor for cognitive-flexibility. The results indicate that about five percent of the variance of cognitive-flexibility can be explained by the number of years working in the US and Japan. WORKUS was the only variable entering the regression for self-efficacy. Five percent of the variance of self-efficacy can be explained by the number of years working in the US.
**Question 3.** What are the differences between number of years working in the US and/or Japan with self-efficacy and cognitive-flexibility? To answer this question, the following statistical procedures were undertaken.

Prior to running the two-way analysis of variance, the three assumptions of outliers, normality and homogeneity were tested for both self-efficacy and cognitive-flexibility scores. While, the cognitive-flexibility score was normally distributed for all group combinations of WORKJP and WORKUS, as assessed by the Shapiro-Wilk’s test (p > .05), self-efficacy scores were not normally distributed. Interpretation of the relationship with self-efficacy must be conducted with some caution. There were homogeneity of variances for both cognitive-flexibility and self-efficacy scores, as assessed by Levene’s Test of Homogeneity of Variance (p = .504 and p = .381, respectively), and there were no outstanding outliers.

Number of years working might contribute to cognitive-flexibility but that effect might differ across individuals working in the US or Japan. A two-way analysis of variance tested the cognitive-flexibility level of individuals who had high or low number of years working in Japan among individuals who had high or low number of years working in the US. Low and high number of years was determined by examining the median. Years above median were considered *high* and below were considered *low*. Individuals who worked more in the US showed a significantly higher level of cognitive-flexibility ($F(1,204) = 5.53, p = .02$, partial $\eta^2 = .03$) than those who worked fewer in the US (see Table 13).
Table 13

*Mean Level of Cognitive-Flexibility by Number of Years Working in Japan and Number of Years Working in the US*

<table>
<thead>
<tr>
<th>Number of years working in Japan</th>
<th>Number of years working in the US</th>
<th>high</th>
<th>low</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>Mean</td>
<td>4.91</td>
<td>4.72</td>
</tr>
<tr>
<td></td>
<td>Std Dev</td>
<td>.522</td>
<td>.467</td>
</tr>
<tr>
<td>low</td>
<td>Mean</td>
<td>4.82</td>
<td>4.68</td>
</tr>
<tr>
<td></td>
<td>Std Dev</td>
<td>.529</td>
<td>.465</td>
</tr>
</tbody>
</table>

Significant results were not seen with number of years working in Japan and the interaction of number or years working in the US and Japan. Individuals who worked longer in the US showed a significantly higher level of self-efficacy ($F(1,204) = 8.37$, $p = .00$, partial $\eta^2 = .04$) than those who worked fewer in the US (see Table 14).
Table 14

Mean Level of Self-Efficacy by Number of Years Working in Japan and Number of Years Working in the US

<table>
<thead>
<tr>
<th>Number of years working in Japan</th>
<th>Number of years working in the US</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>high</td>
<td>3.37</td>
<td>.450</td>
</tr>
<tr>
<td>low</td>
<td>low</td>
<td>3.34</td>
<td>.436</td>
</tr>
</tbody>
</table>

The ANOVA showed that the key factor associated with cognitive-flexibility and self-efficacy in Japanese bilingual adults was number of years working in the US. Japanese bilingual individuals that worked longer in the US had higher cognitive-flexibility and self-efficacy than those who worked less amount of year in the US. In addition, by observing the mean scores in Table 11, as previously predicted, individuals that had high number of years working in Japan and high number of years working in the US had the highest scores for both cognitive-flexibility and self-efficacy (M = 4.91, SD=.522 and M=3.38, SD=.450, respectively). In contrary, individuals that worked low
number of years in Japan and low number of years in the US had the lowest scores for both cognitive-flexibility and self-efficacy (M=4.68, SD=.465 and M=318, SD=.402, respectively). Furthermore, individuals that had a combination of high and low number of years working in Japan or the US had cognitive-flexibility and self-efficacy scores between the high/high and low/low groups. The odds that both cognitive-flexibility and self-efficacy results would show the same direction for all four cells by chance is one out of 16 or 6.25%. While the WORKUS was the significant variable, all cells showed predicted direction.

**Question 4.** Which biculturalism variables best predict self-efficacy and cognitive-flexibility? To answer this question, the following statistical procedures were undertaken.

A linear stepwise multiple regression was conducted to examine collectively how well the independent variables predict cognitive-flexibility and self-efficacy, and which predictors were most important. For cognitive-flexibility, four variables entered the regression. Total Social Interaction (SITOTAL) (t = 3.84, p<.001), Japanese Cultural Identity (CIJP) (t = 3.54, p <.001), age (t = 3.04, p < .01), and US American Cultural Identity (CIUS) (t = 2.56, p <.05) were statistically significant. Examination of the Beta, the most powerful predictor was SITOTAL (Beta = .25), followed by CIJP (Beta = .22), age (Beta = .19), and CIUS (Beta = .17). By examining the R square, 20% in variation of cognitive-flexibility was associated with SITOTAL, CIJP, AGE, and CIUS (see Table 15).
Table 15

*Multiple Regression for Cognitive-Flexibility as a Function of 14 Predictors*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive-flexibility</td>
<td>.25***</td>
<td>3.84</td>
<td>.000</td>
</tr>
<tr>
<td>Social Interaction (SITOTAL)</td>
<td>.22***</td>
<td>3.54</td>
<td>.001</td>
</tr>
<tr>
<td>Japanese Cultural Identity (CIJP)</td>
<td>.19**</td>
<td>3.04</td>
<td>.003</td>
</tr>
<tr>
<td>Age</td>
<td>.17*</td>
<td>2.56</td>
<td>.011</td>
</tr>
<tr>
<td>US American Cultural Identity (CIUS)</td>
<td>.17*</td>
<td>2.56</td>
<td>.011</td>
</tr>
</tbody>
</table>

R = .45
R² = .20
f = 12.97***
sig f = .001
N = 209

*p < .05, **p<.01, ***p<.001

For self-efficacy, four variables entered the regression. CIUS (t = .32, p < .001), CIJP (t = .19, p < .01), age (t = .16, p < .05), and SITOTAL (t = .14, p < .05) were statistically significant. Examination of the Beta, the most powerful predictor was CIUS (Beta = .32), followed by CIJP (Beta = .19), AGE (Beta = .16), and SITOTAL (Beta = .14).
By examining the R square, 20.0% in variation of self-efficacy was associated with CIUS, CIJP, AGE, and SITOAL (see Table 16).

Table 16

*Multiple Regression for Self-Efficacy as a Function of 14 Predictors*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US American Cultural Identity (CIUS)</td>
<td>.32***</td>
<td>4.95</td>
<td>.000</td>
</tr>
<tr>
<td>Japanese Cultural Identity (CIJP)</td>
<td>.19**</td>
<td>2.93</td>
<td>.004</td>
</tr>
<tr>
<td>Age</td>
<td>.16*</td>
<td>2.55</td>
<td>.012</td>
</tr>
<tr>
<td>Social Interaction (SITOTAL)</td>
<td>.14*</td>
<td>2.14</td>
<td>.034</td>
</tr>
<tr>
<td>R</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>13.06***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sig f</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>209</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
SITOTAL, CIJP, AGE, and CIUS collectively were moderately strong variables explaining the variances of cognitive-flexibility. The strongest predictor was SITOTAL. CIUS, CIJPN, AGE, and SITOTAL collectively were moderately strong variables explaining the variances of self-efficacy, and the strongest predictor was CIUS. Missing data was replaced with the mean for all data.

In the following chapter 5, a summary and discussion of the dissertation research is provided.
CHAPTER 5 – SUMMARY AND DISCUSSION

Summary

The focus of this study is to examine the effects of biculturalism on self-efficacy and cognitive-flexibility of Japanese adults. While there may be potential benefits for maintaining two cultural identities — Japanese identity and US American identity in this study — I began my argument by stating that the world exerts much energy to assimilate people. Assimilation in the US as well as in Japan is evident. For instance, in the US, the implementation of Proposition 227 mandates districts and schools to implement English-Only instruction (Gandara & Rumberger, 2009). Under this initiative, along with the No Child Left Behind, culturally and linguistically diverse students were destined for dismal consequences. It appeared that an ultimatum was at work. The choice was to lose their heritage identity by assimilating to the mainstream values or drop out from the school system (Gershberg, et al., 2004; Works, 2002). As for Japan, students educated abroad having arrays of multicultural experiences were assimilated to the Japanese culture. Moreover, graduates of international schools in Japan—categorized under kakushu gakko or miscellaneous schools—have been disadvantaged by not receiving the same privileges that a traditional Japanese school would. While the world is rapidly globalizing, the opportunity to obtain and even maintain multicultural experiences and perspectives are undermined.

Researchers argue that individuals acquiring multiple perspectives are beneficial to the society (Bialystok, 2007; Leung, et al., 2008; Roccas & Brewer, 2002). Their studies have shown that multiple cultural experiences promote positive interpersonal skills. However, studies of cross-cultural identity development have shown equivocal results as
well as limitations in regards to the group members that have been under investigation. The majority of past research conducted in the US has been in biculturalism has been conducted in the US and Canada with culturally and linguistically diverse college students (Chen, Benet-Martinez, & Bond, 2008). In addition, studies of acculturation of the Japanese people have been limited. While studies have examined Japanese sojourners (Ito, 2006) and Japanese high school students (Chinen & Tucker, 2005), no research has undertaken studies on bicultural Japanese adults.

This research was a survey study examining the relationship of biculturalism with cognitive-flexibility and self-efficacy and relied on an online survey administered to alumni of six international schools in Tokyo, Japan. The researcher approached six international schools situated in Tokyo and met with the headmaster’s and headmistresses to ask for their participation. Alumni members who are bilingual Japanese citizens were contacted via the international schools for their participation in the study.

**Results: Summary**

Four questions using different statistical analysis relevant to the research question were posed and were analyzed. The results are summarized as follows.

**Question 1.** What is the relationship of bicultural identity to self-efficacy and cognitive-flexibility? The relationship between Cultural Navigation Scale (CNS) with cognitive-flexibility and self-efficacy was assessed by running a Pearson Correlation. The CNS is a composite variable that attempts to operationalize biculturalism. CNS is a combination of cultural identity, language proficiency, and social interaction. The result was: CNS had a positive moderate correlation with both cognitive-flexibility and self-efficacy.
**Question 2.** How does bicultural identity (variable used: number of years working in the US or Japan) predict self-efficacy and cognitive-flexibility? The relationship of the two main predictor variables, number of years working in Japan (WORKJP) and number of years working in the US (WORKUS) with the two dependent variables, cognitive-flexibility and self-efficacy were examined by conducting a multiple regression. The results were as follows:

- Five percent of the variance for cognitive-flexibility was explained by the two predictor variables.
- WORKUS was the stronger predictor.
- Five percent of the variance for self-efficacy was explained by WORKUS.

**Question 3.** What are the differences between number of years working in the US and/or Japan with self-efficacy and cognitive-flexibility? A two-way analysis of variance tested the cognitive-flexibility level and self-efficacy level of individuals who had high or low WORKJP and WORKUS.

- WORKUS showed a significantly higher level of cognitive-flexibility and self-efficacy with individuals that worked more in the US than those who worked less in the US.
- Individuals that had lived longer in both Japan and US had higher cognitive-flexibility and self-efficacy mean scores than any other groups.

**Question 4.** Which biculturalism variables best predict self-efficacy and cognitive-flexibility? A multiple regression was conducted to examine collectively how well the independent variables predict cognitive-flexibility and self-efficacy.
• Twenty percent of the variance for cognitive-flexibility was associated with Social Interaction (Japan and US), Japanese cultural identity, age, and US American cultural identity.

• For cognitive-flexibility, the most powerful predictor was social interaction (Japan and US).

• Twenty percent of the variance for self-efficacy was associated with US American cultural identity, Japanese cultural identity, age and social interaction (Japan and US).

• For self-efficacy, the most powerful predictor was US cultural identity.

Discussion

On the basis of this study alone, it is difficult to ascertain the relationship between biculturalism and cognitive-flexibility and self-efficacy and thus to be certain about whether the two main variables, number of years working in Japan (WORKJP) and number of years working in the US (WORKUS) are relevant antecedents of biculturalism. However, four interpretations arose following the four aforementioned analyses.

First, bicultural identity may potentially have a strong relationship with cognitive-flexibility and self-efficacy in Japanese adults. Bicultural identity in this study was identified by a composite of Japanese cultural identity, US American cultural identity, Japanese language proficiency, English proficiency, and total social interaction of Japan and the US. Building on the amalgamation of the constructs, this study showed that a positive moderate relationship exists with the two dependent variables.

Second, in the second analysis, when running only WORKJP and WORKUS as the only two predictor variables, multiple regression showed that they were significant
predictors of cognitive-flexibility. In chapter two, cognitive-flexibility is defined as an individual’s awareness that options and alternatives exist and the willingness to be flexible and adaptable (Martin & Rubin, 1995). When an individual is exposed to two cultures and is required to navigate between the two, it makes sense that an individual is required to be flexible and adaptable to both cultures. On the other hand, should an individual be caught up with one ideology and proclaim that ideology to be superior or of more value than the other, that individual will more likely function from a monocultural standpoint, thus curtailing the development of a bicultural identity.

Third, English and Japanese bilingual Japanese individuals who relate more deeply with the US culture are suggestive of the development of self-efficacy. WORKUS was the single predictor of self-efficacy in the second analysis, and maintaining a US American cultural identity was the strongest in the fourth analysis. By examining the two analyses, life experience in the US may be a strong factor for the development of self-efficacy for bilingual Japanese people. Self-efficacy is a belief that one is capable to organize, execute a course of action, to obtain specific goals (Bandura, 1997). In a collectivist culture like Japan, where decision making is performed in a group and group goals are emphasized (Pyszczynski, Greenberg, & Goldenberg, 2003), the development of a sense of self-efficacy may be lower than the US, which is more of an individualistic society where emphasis is on positive self-regard, self-reliance, individual achievement, and personal goals (Cross & Gore, 2003; Pyszczynski, et al., 2003; Devos and Banaji, 2003). Having said this, self-efficacy may be associated more with the US culture than biculturalism.

In addition, by observing the mean scores of cognitive-flexibility and self-efficacy of the four different groups, 1) high number of years working in Japan and high number of
years working in the US, 2) high number of years working in US and low number of years working in the Japan, 3) high number of years working in Japan and low number of years working in the US, and 4) low number of years working in Japan and low number of years working in the US, results indicated that group 1 had the highest scores, followed by groups 2, 3 and 4. This suggests that being able to navigate and function both in Japan and the US may be a factor that increases cognitive-flexibility and self-efficacy. As statistically significance was only seen between those who worked more years in the US and those who worked fewer years in the US, further research is necessary to substantiate this claim.

Last, an individual’s perception of one’s biculturalism and the bicultural experience appears to be associated with cognitive-flexibility and self-efficacy. The cultural identity subscale measures one’s perception of biculturalism and the social interaction subscale measures the actual experiences pertinent to the Japanese or US American cultures (see Table 8). In other words, if one perceives him or herself as being bicultural as well as having tangible bicultural experiences, these two factors may be strong antecedents to cognitive-flexibility and self-efficacy. Based on the results of this study, operationalization of biculturalism may be more effective when items probing for both perception and tangible experiences are included in the survey.

Previous studies have shown positive outcomes or consequences of the development of a dual cultural identity (Berry, et. al., 1986; Bialystok, 2008; 2009; LaFromboise, et al., 2003; Roccas & Brewer, 2002; Tadmor, et al., 2009). Kim and Omizo (2005) examined the relationship of adherence to Asian and European American cultural values as independent variables with collective self-esteem, acculturative stress, cognitive-flexibility, and self-efficacy as dependent variables. While they found a
significant relationship with self-esteem, other variables did not yield results. My argument was based on account of selection error. Adherence to cultural values and being college students were not strong indicators of biculturalism. The process of identity development takes time and consistency as implicated by Erikson (1980). Likewise, bicultural identity development takes time and consistency. An individual can adhere to a culture without developing the cultural identity of that culture. Moreover, it is unlikely that the majority of college students will not have much life experiences, life challenges, and problem solving situations to develop cognitive-flexibility and self-efficacy skills. On the contrary, participants in this study were adults ranged from 18 to above 58, and have had richer life experiences, and have developed bicultural identities that are more substantial than merely adhering to a culture. This study has shown that when individuals develop solid bicultural identities, not merely adhering to the cultures, the likelihood of relationships with cognitive-flexibility and self-efficacy increase considerably.

Moreover, while the ANOVA analysis showed that individuals who had more experience working in the US had higher cognitive-flexibility and self-efficacy scores than those who worked less in the US, multiple regression analysis showed that WORKJP and WORKUS were not statistically significant indicators of biculturalism when run with other predictor variables. A plausible explanation for the fact that the scores in the cognitive-flexibility and self-efficacy did not yield statistical significance is because the difference in type and function of the employment. The question asked was, “I have worked a TOTAL of _____ years in Japan/the US.” This question may have been too simplistic and crude. The question did not delve into asking about the details of the job. For instance, questions differentiating whether the job was permanent or temporary, technical or non-technical,
and also asking the level of job satisfaction may have been pertinent. These questions would allow the researcher to understand the level of relationship or affinity the participants had with his or her company or site of employment. In addition, according to Krueger and Schkade (2008), workers were more satisfied with their jobs when they had more frequent interaction with colleagues, low perception risk of layoff, and higher hourly pay, whereas, those who worked under time pressure, tight supervision and less variability of work were less satisfied. Depending on the work environment, participants in this study may have had differences in the level and depth of relationship with colleagues, which in effect impact the level of social interaction.

Limitations of the study

The first two limitations were evident in regards to generalizability of the data to a larger population. First, students who attend international schools in Tokyo, Japan are generally from the affluent stratum, and therefore, students from families of the lower social economic status are not included in the study. Second, unlike traditional Japanese schools, international schools are not predisposed to Confucius ideology, which creates a different social dynamics. For instance, as discussed in chapter two, the *sempai* (senior) and *kohai* (junior) relationship does not generally govern the students’ relationship with peers at international schools.

The next two limitations reflect the intrinsic limitations of psychometrics. This study collects data through online questionnaire. It is anticipated that participants will be honest in answering the questions and exert much effort to be as accurate as possible. While the researcher made the best efforts to convey the anonymity and confidentiality of results, social desirability may have played a role in elevating their responses. The fourth
limitation is based on how language proficiency was measured. Participant’s language proficiency in English and Japanese is not obtained through language assessments, and instead, a self-report method is employed. Perception of an individual’s language ability maybe influenced by the participant’s affective condition. Depending on the mood of the participant at the time of the survey, the responses may have fluctuated. It is possible that this form of establishing language proficiency was inconsistent.

Implications

The implications of this study as well as extended implications will be discussed in this section. Extended implications deal with how this study may benefit students in school settings and foster mutual understanding amongst people from different cultures. Three skill sets will be explored that may emerge from the maintenance of a dual cultural identity.

Implications of the study. The implication of this study is the understanding that when Japanese people are given the opportunity to build a dual cultural identity, especially of the Japanese and US American identity, some people showed association with enhanced self-efficacy and cognitive-flexibility skills. While more studies with the Japanese people is necessary, this study has presented promising effects on the development of a bicultural identity of Japanese people attending international schools. International schools are currently systemically different from traditional Japanese schools, as represented by their kakushu gakko or miscellaneous schools status. It is easy to keep demarcating the two types of schools and maintaining the difference. However, should the Japanese Department of Education create policy and practice from a collaborative standpoint with international schools, the likelihood of creating new educational programs that meet the
internationalizing society of Japan and benefit the future of the Japanese society may indubitably increase.

Researchers are still beginning to understand the positive outcome of maintaining biculturalism. As was presented in chapter two, most of the studies of biculturalism look at the effects of bilingual children (Bialystok, 2009; Bialystok & Viswanathan, 2009) or acculturation process of the Latino or Chinese people immigrating to North America (Kim & Omizo, 2005; Lu, 2001; Zea, Asner-Self, Birman, & Buki, 2003) with college students (Bialystok, Craik, and Luk, 2008; Leung, et al., 2008). The implication from a research standpoint is that it added to the understanding of the psychosocial benefits of biculturalism, especially of the Japanese population. As more cutting-edge research are conducted in this field, it is anticipated that the development of cultural awareness through the process of developing bilingualism or biculturalism will likely lead to enhancement of interpersonal relationship between people from varying cultural and ethnic backgrounds.

**Extended implications.** In addition to the implications of this study, as an educator exposed to both education in Japan and the US, I could not resist the urgency to provide a short discussion on the implications in the field of education from both a cultural and a global perspective. Having taught at bilingual schools in Los Angeles and Tokyo, one of the missions of the schools is to educate students to become global citizens. I would like to take the opportunity to add my thoughts about this in this section.

**Implications in education.** Although a single study cannot provide a sound basis for educational practices, I hope the results and interpretations of this study will open some doors for revisiting the essence of democracy. The implication in education is the
implementation of programs that contain the following three themes: cultural awareness, positive cultural perception, and cultural experiences.

Revisit cultural awareness programs. Economical, historical, and political settings dictate the composition and implementation of educational initiatives. Unfortunately, in recent years it is common to come across initiatives that do not represent the needs and views of diverse population. While both countries, Japan and the US, are legislatively governed by democratic principles, it is not uncommon to witness actual implementations of policies and regulations that dismiss such principles. The hard-attempted effort to assimilate immigrants in the US or kikokushijo are just few examples cited in this study. It is not my intent to imply the denial of assimilation all together. Should an individual choose to assimilate, that is the constitutional right of that person.

The point I am intending to convey is the dearth of choices. John Dewey (1903; 1916) in Democracy and Education states that in order to have a diverse number of values, all individuals must have equable opportunity to receive from others. Is the English-Only initiative something that Dewey had in mind when writing Democracy and Education? As more studies are conducted, our understanding of the positive effects of bilingualism and biculturalism will become substantiated. While this study showed that biculturalism may potentially be associated with bettering interpersonal relational skills, it is pertinent that the schools implement cultural awareness programs to halt the deracination of the potential for the development and cultivation of biculturalism. I am using cultural awareness programs in the broadest sense. It may include providing culturally relevant pedagogy or even developing effective bilingual programs. It can also mean to employ ethnically diverse educators in schools as well as engaging the ethnically diverse community in the schools.
By revisiting the prospects of cultural awareness programs, we can come closer to realizing democracy in education as envisioned by John Dewey nearly a century ago.

*Cultivate positive cultural perception.* This study showed that a positive perception of one’s cultural identity is one of the key elements in solidifying a cultural identity, specifically in terms of the items of the cultural identity subscale. For instance, an individual who has positive perception of the Japanese cultural identity will strongly agree to some items such as “I think of myself as being Japanese,” “I feel good about being Japanese,” and “I am proud of being Japanese.” On the other hand, an individual who strongly disagrees with such statements implies a negative perception or dismissal of the development of Japanese cultural identity. This said, a precept for potential bicultural identity development may be concealed in the cultivation and maintenance of positive perceptions of two cultures. If such developments were deracinated to begin with, bicultural identity development will be stifled, and the hopes for such development in children will be shunned. I believe in the cultivation of biculturalism in the school system, a political climate conducive to intercultural awareness and relationship is fundamental.

*Engage in cultural experiences.* Another fundamental understanding that emerged from this study is that engagement in cultural experiences is an essential factor in developing biculturalism as represented in the items of social interaction subscale. For instance, an individual who has much Japanese cultural experience will strongly agree to the following two items, “I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Japanese,” and “I am currently or have participate(-d) in Japanese cultural practices, such as special food, music, or customs.” And an individual who has much US cultural experiences will strongly agree
with the items corresponding to experiences in the US. It is all too common to reiterate this; knowledge is not a substitution for experience. Life is about experience. No matter how much knowledge one can have about another culture, it does not substitute for actual cultural experiences and language acquisition.

Nevertheless, research in social psychology has shown that a positive relationship with a typical outgroup member will transfer the favorable attitude to the outgroup in general (Desforges, Lord, Pugh, & Sia, 1997; Ensari & Miller, 2002; Frey & Tropp, 2006). Moreover, extended contact hypothesis suggests that when individuals develop close relationships with individuals from outgroups and includes the outgroup in the self, group boundaries are dissolved and interconnectedness emerges (Wright, Aron, & Mclaughlin-Volvpe, & Ropp, 1997). Establishing friendship with outgroup members appears to be a key element in reducing intergroup anxiety (Wright, et al., 1997). It is critical that school systems integrate programs and curriculum that promote intercultural experiential relationships.

**Implications for the global society.** This study is concerned about emerging psychosocial outcomes that may assist in enhancing communication and understanding between groups. In the process of developing a bicultural identity, several skill sets emerge. These skills promote enhancement of cross-cultural relationships. The skill sets are dual language skills, interpersonal relational skills, and integrative-complexity skills.

**Dual language skills.** Benefits of developing a bicultural identity are ascertainable in a global society. When two cultural languages are different, e.g. Japanese and English, the obvious benefit is the ability to speak in two languages. This has the advantage that allows the two parties involved to share information at a personal level. The ability to
speak in the languages provides us to connect and understand with individuals from other
cultures.

Interpersonal relational skills. Development of bicultural identity requires the
development of positive perceptions of the acquiring two cultures as well as having
substantial experiences relating to the two cultures. This statement implies that cultural
dissension does not exist in the bicultural individual’s psyche. For this study, the results
indicate positive perceptions of the Japanese culture and US culture as predictors of
cognitive-flexibility and self-efficacy. Nevertheless, it may be veracious to state that the
act of navigating two cultures involves being less bigoted or inclined toward being a racist,
at least with the cultures that this individual is acquiring. I believe it is safe to state that the
contingency for the development of bicultural identity is acceptance of two cultures.
Should that individual’s quest for bicultural identity development begin with rejection and
maintain an arm’s-length attitude, the individual is quite unlikely to cultivate a bicultural
identity. In other words, due to the positive perceptions and the peace-keeper mentality of a
bicultural identity person, this person is one silhouette that represents a global citizen in
our global society.

Integrative-complexity skills. When an individual develops a dual cultural identity,
this implies furthering the understanding of the two cultures, in a sense becoming an expert
of the two cultures. As indicated in the literature review, developing a Japanese identity
entails the sensibility and facility of executing the Japanese-ness or Japanese entitativity,
as social psychologist will refer to, in relation to the philosophical foundation, language,
and social concepts of the Japanese culture. This is also said with an individual who
develops a US American identity. In the process of developing two cultural identities and
becoming an expert of the two cultures, it becomes a natural tendency to understand the similarities and differences of the cultures. This is known as integrative complexity.

According to Tadmor, Tetlock and Peng (2009), integrative complexity is an individual’s capacity to differentiate between two different perspectives and at the same time, understand the commonality of the two perspectives. Putting this in context with the Japanese culture and US American culture, an individual will understand the differences of the styles of greeting, for instance. In Japan, when an individual meets a person for the first time, Japanese people bow; on the other hand, American people shake hands. While the actual behavioral responses of greeting are different, the common denominator for the act is to greet each other. Researchers believe that integrative complexity is high for bicultural people (Tadmor, et al., 2009). In other words, the potential for bicultural individuals to understand the differences and similarities of the two cultures is high.

**Future research**

Research on the investigation of the benefits of biculturalism (even multiculturalism) is still in the fledgling stages. The relationship of biculturalism with psychosocial consequences must be substantiated by conducting more research. While this study was able to show the relationship of biculturalism with cognitive-flexibility and self-efficacy in Japanese bilingual adults, investigating the relationship with other ethnic groups will benefit the theoretical literature. Asian American college students that were studied under the Kim and Omizo (2005) will be of particular interest. While some relationships will exist between the cultural navigation scale with cognitive-flexibility and self-efficacy, it would be anticipated that the relationship will be weak and small due to the lack of life experience the college students would have. Repeating this study with the Latino/a and
Chinese population in the US is of importance, as these ethnic groups are increasing in number in all facets of US culture.

The scientific communities understanding of the effects of biculturalism will bear significance by comparing the results of this study with monolingual Japanese and Japanese-American individuals. The results of this study may be due to specific characteristics of the Japanese tribal members. By administering the survey and comparing the results with Japanese citizens that speak only in Japanese and Japanese-American individuals that communicate only in English, we can eliminate such inherent Japanese characteristics that may have been a strong factor in contributing to the results.

In addition, as was noted in the limitations of this study, all participants were from families of the middle to upper social economic stratum. It would be natural to state that the study would benefit from including bilingual Japanese participants that cover the full range of the social economic stratum. However, this idea has challenges that may potentially be difficult to overcome. While the majority of Japanese people attend traditional Japanese schools, English education for the majority of Japanese people is still limited to Cognitive Academic Language Proficiency. It is not common for Japanese people to reach a high Japanese and English bilingual level after graduating high school or even college, or reach a highly bicultural status as that of international school individuals. Even if they did, the task to identify such individuals will endure a great challenge.

Examining not only the years working in Japan or the US, but looking at the type of employment, job satisfaction level, and level of relationship with employees and employers may unveil some level of association with cognitive-flexibility and self-efficacy.
Last, measuring integrative complexity in bicultural people will be another variable that will be of particular interest for future studies.

In closing, I would like to end this chapter with a personal thought. By accepting cultures within the self, it provides an opportunity for an individual to transform through the acquisition and development of two cultural identities. Through such transformation, potential arises to engage *vis-à-vis* with your true potential. The potential that accepts cultures, differentiates cultures, and gains insight to the commonalities of the cultures. Bicultural identity development is by no means the sole process used to enhance interpersonal relational skills or enhance psychosocial outcomes, but merely one of many. But due to the proliferation of diversity and expanding global societies, bicultural identity development may well become a process that will be experienced by more people in the near future.
GLOSSARY

Acronyms of Variables

AGE  Age
CIJP  Japanese Cultural Identity
CIS  Cultural Identity Subscale
CIUS  American Cultural Identity
CNQ  Cultural Navigation Questionnaire
CNS  Cultural Navigation Scale: Consisted of the Cultural Identity Subscale, Language Proficiency Subscale, and Social Interaction Subscale
EDUCATION  Education
GENGER  Gender
LIVEJP  Number of years living in Japan
LIVEUS  Number of years living in the US
LPE  Language Proficiency in English
LPJ  Language Proficiency in Japanese
PRIOR18  Number of years living in a foreign country prior to the age of 18
SIJP  Social Interactions in Japan
SITOTAL  Social Interactions in Japan and the US
SIUS  Social Interactions in the US
SUPPORTJP  Support in Japanese language
WJJP  Frequency of usage of Japanese at work in Japan
WORKJP  Number of years working in Japan
WORKUS  Number of years working in the US
WUSE  Frequency of usage of English at work in the US
APPENDIX A

Cultural Navigation Questionnaire

I am studying Japanese people who live in Japan and the USA. Your participation will help me develop this survey about cultural navigation. It is not a psychological or an intelligence test. It will take about 20 to 30 minutes to complete the survey. Should there be any items that may be difficult for you to respond, please feel free to skip that item. Thank you so much for your contribution.

Directions:
1. Please write in or check your responses.
2. Press the arrow buttons located at the bottom of each section to go to the next section or return to the prior section.

Note:
US/USA = United States of America
American = US American
Thank you for your participation.

1. I speak the following languages (Check all that apply)
   Japanese ______ English ______ other ______ (please identify)

2. I have lived a TOTAL of ______ years in Japan.

3. I have lived a TOTAL of ______ years in the USA. (Months indicate, e.g. 0.6 for 6 months)

4. I have worked a TOTAL of ______ years in Japan.

5. I have worked a TOTAL of ______ years in the USA.
6. The following are statements about your perception/belief about who you are. Which statement do you relate most with? (Choose only one)

- I am Japanese. ______
- I am American. ______
- I am Japanese AND SOME American ______
- I am American AND SOME Japanese. ______
- I am Japanese AND American ______
- I am NOT Japanese and NOT US American ______
- Other ______ (Please explain
  ___________________________________________________________

7. I was born in:

- Japan _____
- USA_____
- England _____
- Australia_____ Other (please specify)  ________________

Please answer items #8 to #19 using the following responses:

1 Strongly disagree      2 Disagree     3 Slightly disagree    4 Slightly agree    5 Agree    6 Strongly agree

When I am in Japan:

8. I can communicate an idea in many different ways.
9. I avoid new and unusual situations.
10. I feel like I never get to make decisions.
11. I can find workable solutions to seemingly unsolvable problems.
12. I seldom have choices when deciding how to behave.
13. I am willing to work at creative solutions to problems.
When I am in the US

14. I can communicate an idea in many different ways.

15. I avoid new and unusual situations.

16. I feel like I never get to make decisions.

17. I can find workable solutions to seemingly unsolvable problems.

18. I seldom have choices when deciding how to behave.

19. I am willing to work at creative solutions to problems.

20. Gender     Female _____  Male _____  other _____

21. I am _____ years old.
   18 to 22 _____ 23 to 28 _____  29 to 34 _____  35 to 40 _____  41 to 46 _____
   19  47 to 52 _____  53 to 58 _____  above 58_____

22. I lived in a foreign country prior to the age of 18     Yes _____  No _____

   If YES, how many years did you live in a foreign country prior to the age of 18? _____

   Please list the countries you lived in prior to the age of 18 ____________________________
Please answer items #23 to #26 using the following responses:

1 Strongly disagree  2 Disagree  3 Agree  4 Strongly agree

23. I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Japanese.

24. I currently or have participated in Japanese cultural practices such as special food, music, or customs.

25. I am currently or have been part of a member of clubs, organizations, and social groups that are/were mostly composed of Americans.

26. I currently or have participated in American cultural practices such as special food, music, or customs.

Please answer items #27 to #38 using the following responses:

1 Strongly disagree  2 Disagree  3 Slightly disagree  4 Slightly agree  5 Agree  6 Strongly agree

When I am in Japan

27. In any given situation, I am able to act appropriately.
28. My behavior is a result of conscious decisions that I make.
29. I have many possible ways of behaving in any given situation.
30. I have difficulty using my knowledge on a given topic in real life situations.
31. I am willing to listen and consider alternatives for handling a problem.
32. I have the self-confidence necessary to try different ways of behaving.

When I am in the US

33. In any given situation, I am able to act appropriately.
34. My behavior is a result of conscious decisions that I make.
35. I have many possible ways of behaving in any given situation.
36. I have difficulty using my knowledge on a given topic in real life situations.
37. I am willing to listen and consider alternatives for handling a problem.
38. I have the self-confidence necessary to try different ways of behaving.
Please answer items #39 to #44 using the following responses:

1 Strongly disagree  2 Disagree somewhat  3 Agree somewhat  4 Strongly agree

39. I think of myself as being Japanese.
40. I feel good about being Japanese.
41. Being Japanese plays an important part in my life.
42. I feel that I am part of Japanese culture.
43. I have a strong sense of being Japanese.
44. I am proud of being Japanese.

Please answer items #45 to #51 using the following responses:
1 never  2 rarely  3 occasionally  4 frequently  5 always

45. I have worked in Japan.  Yes _____  No _____
   If YES please answer the items #46 to #51. If NO, skip to item #52.

46. Of the total number of years working in Japan, I ______ spoke/speak Japanese.

47. Of the total number of years working in Japan, I ______ spoke/speak English

48. Of the total number of years working in Japan, I ______ wrote/write Japanese.

49. Of the total number of years working in Japan, I ______ wrote/write English.

50. Of the total number of years working in Japan, I ______ read Japanese.

51. Of the total number of years working in Japan, I ______ read English
Please answer items #52 to #57 using the following responses:

1 Strongly disagree   2 Disagree somewhat   3 Agree somewhat   4 Strongly agree

52. I think of myself as being American.
53. I feel good about being American.
54. Being American plays an important part in my life.
55. I feel that I am part of American culture.
56. I have a strong sense of being American.
57. I am proud of being American.

58. I have worked CONSECUTIVELY for MORE THAN ONE YEAR in the US.
    Yes _____        No _____
    If YES, please answer the items #59 to #65. If NO, skip to item #66.

59. When working in the US, what working visa(s) did you possess? _________________________

Please answer items #60 to #65 using the following responses:

1 never   2 rarely   3 occasionally   4 frequently   5 always

60. Of the total number of years working in the US, I ________ spoke/speak English.

61. Of the total number of years working in the US, I ________ spoke/speak Japanese.

62. Of the total number of years working in the US, I ________ wrote/write English.

63. Of the total number of years working in the US, I ________ wrote/write Japanese.

64. Of the total number of years working in the US, I ________ read English.

65. Of the total number of years working in the US, I ________ read Japanese.
Please answer items #66 to #71 using the following responses:

1 Strongly disagree  2 Disagree  3 Agree  4 Strongly agree

66. I can read Japanese newspapers.
67. I can write Japanese essays expressing my personal opinions.
68. I can speak politely in Japanese, e.g. using keigo to people I am not familiar.
69. I can read English at a college level.
70. I can write English at a college level.
71. I can express my opinions clearly in English.

Please answer items #72 to #81 using the following responses:

1 Not at all true  2 Hardly true  3 Moderately true  4 Exactly true

When I live in Japan

72. I can solve most problems if I invest the necessary effort.
73. I can remain calm when facing difficulties because I can rely on my coping abilities.
74. When I am confronted with a problem, I can find several solutions.
75. If I am in trouble, I can think of a good solution.
76. I can handle whatever comes my way.

When I live in the USA

77. I can solve most problems if I invest the necessary effort.
78. I can remain calm when facing difficulties because I can rely on my coping abilities.
79. When I am confronted with a problem, I can find several solutions.
80. If I am in trouble, I can think of a good solution.
81. I can handle whatever comes my way.
Please answer items #82 to 91 using the following responses:
1 Not at all true  2 Hardly true  3 Moderately true  4 Exactly true

When I am in Japan:
82. I can always manage to solve difficult problems if I try hard enough.
83. If someone opposes me, I can find the means and ways to get what I want.
84. I am certain that I can accomplish my goals.
85. I am confident that I could deal efficiently with unexpected events.
86. Thanks to my resourcefulness, I can handle unforeseen situations.

When I am in the US:
87. I can always manage to solve difficult problems if I try hard enough.
88. If someone opposes me, I can find the means and ways to get what I want.
89. I am certain that I can accomplish my goals.
90. I am confident that I could deal efficiently with unexpected events.
91. Thanks to my resourcefulness, I can handle unforeseen situations.

About your education (Your kindergarten to 12th grade educational experience)

92. Total number of years attending a private/public Japanese school. ______ years
93. Total number of years attending an international school in Japan. ______ years
94. Total number of years attending an international school in another country other than Japan. ______ years
95. Total number of years attending a private Japanese school in another country other than Japan . ______ years
96. Total number of years attending a public/private school in the US. ______ years
97. Please indicate the highest level of education received:
   high school ______ vocational/professional______ some college or AA degree ______
   4 year degree ______ graduate degree ______
   other ______ (Please specify _________________________________)

98. Please indicate the highest level of education received by your father:
   high school ______ vocational/professional______ some college or AA degree ______
   4 year degree ______ graduate degree ______
   other ______ (Please specify _________________________________)

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99. Please indicate the highest level of education received by your mother:
    high school _____ vocational/professional_____ some college or AA degree _____
    4 year degree _____ graduate degree _____
    other _____ (Please specify ________________________________)

100. Overall, how supportive was/were your school/s (kindergarten to 12th grade) in learning Japanese?
    1 Not supportive ___ 2 Rarely supportive ___ 3 Supportive ___ 4 Very supportive ___

101. Overall, how supportive were your parents/guardians in learning Japanese?
    1 Not supportive ___ 2 Rarely supportive ___ 3 Supportive ___ 4 Very supportive ___

102. My household income is:
    ___ 0 – 29,999
    ___ 30,000 – 59,999
    ___ 60,000 – 99,999
    ___ 100,000 – above US dollars

103. What citizenship do you possess? (Check all that apply)
    Japanese____ US American____ British ____ Australian ____ other ____________
    If you checked more than one above, please explain? e.g. dual citizenship

104. My biological father’s ethnicity is: 1) Japanese___ 2) US American/British/Australian____

    3) other ____________________________

105. My biological mother’s ethnicity is: 1) Japanese 2) US American/British/Australian

    3) other ____________________________
106. In which industry are you now employed? (Check only one)

___ Mining
___ Utilities
___ Construction
___ Manufacturing
___ Wholesale trade
___ Retail trade
___ Transportation or warehousing
___ Information
___ Finance or insurance
___ Real estate or rental and leasing
___ Professional, scientific or technical services
___ Management of companies or enterprises
___ Admin, support, waste management or remediation services
___ Educational services
___ Health care or social assistance
___ Arts, entertainment or recreation
___ Accommodation or food services
___ Other services (expect public administration)
___ Unclassified establishments

You may use a pseudo or nickname for your name. (Names will be kept confidential and will not be shared with individuals or institutions.

First name ________________________   Last name _____________________________

Email address _______________________________________________________

Thank you very much for taking your time in completing this survey. I appreciate you help very much.

Yujiro Shimogori
Doctoral Student, San Diego State University & Claremont Graduate School
APPENDIX B

Informed Consent Form for Cultural Navigation Study

You are being asked to participate in a research project conducted by Yujiro Shimogori in the School of Educational Studies Claremont Graduate University (CGU) and San Diego State University (SDSU). You were selected based on your Japanese first and last name. It was anticipated that you would be a potential bilingual speaker candidate for this research.

PURPOSE: The purpose of this study is to examine how Japanese bilingual adults experience multiple cultural navigation.

PARTICIPATION: You will be asked a series of questions about you. We expect your participation to take about 20 to 30 minutes of your time.

RISKS & BENEFITS: The potential risks associated with this study are minimal. However, due to the personal nature of the questions asked, you may feel some level of discomfort. We expect the project to benefit you by giving you an objective view of your cultural navigational experiences. In addition, we expect this research to benefit science by understanding how Japanese bilingual adults experience and benefit from multicultural experiences.

VOLUNTARY PARTICIPATION: Please understand that participation is completely voluntary. Your decision whether or not to participate will in no way affect your current or future relationship with CGU and SDSU or its faculty, students, or staff. You have the right to withdraw from the research at any time without penalty. You also have the right to refuse to answer any question(s) for any reason, without penalty.

CONFIDENTIALITY: Your individual privacy will be maintained in all publications or presentations resulting from this study. All research materials will be kept confidential and will only be used for research purposes. To preserve confidentiality, data will be written in such a way that individual differences will not disclose your identity. Your name will not be connected with any of your responses. To protect privacy, an anonymous ID number will be assigned to your questionnaire after you complete it and responses will only be used to figure common opinions among all participants. Furthermore, only group data (information consistent with all participants) will be used in any publication of the results of this study. During the research process the records will be stored in a safe location to maintain security.
If you have any questions or would like additional information about this research, please contact me at 1-310-800-3043 (USA), 9801 Allesandro Court, Rancho Cucamonga, CA 91730, yujiro.shimogori@cgu.edu.

You can also contact my advisor at 1-909-621-8075, CGU 150 East 10th St., Claremont, CA 91711, Philip.Dreyer@cgu.edu.

The CGU Institutional Review Board, which is administered through the Office of Research and Sponsored Programs (ORSP), has approved this project. You may also contact ORSP at (909) 607-9406 with any questions.

Press the arrow buttons located at the bottom of each section to go to the next section or return to the prior section.

__Yes, I agree to the above consent form.
__No. I don’t agree to the above consent form.

Are you at least 18 years and older?
__ Yes. I am at least 18 years and older.
__ No. I am under 18.
REFERENCES


