THE RELATIONSHIP OF WISDOM AND EGO-IDENTITY FOR KOREAN AND AMERICAN ADOLESCENTS

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CHAPTER I

INTRODUCTION TO THE STUDY

The concept of w*isdom* is considered to be the integration of knowledge, traits, mind, emotion, and virtue (Kunzmann, 2004). Erik Erikson (1968) suggested that *wisdom* is the highest human achievement after overcoming various life crises at each development stage and accomplishing issues related to each developmental stage of life. Although wisdom is generally considered an asset of maturity, developing with age, we often encounter youth with wisdom beyond their years (Piechowski, 2006). Theorists claim that adolescents may have the developmental potential for wisdom (Piaget & Inhelder, 1973; Sternberg, 1998). Wisdom is considered to be a strong predictor or determinant of well-being (Ardelt, 2003; Bianchi, 1994; Erikson, Erikson, & Kivnick, 1986) as well as the highest human life-changing achievement (Kramer, 2000; Kunzmann, 2004).

Research has shown that the ego-identity status of adolescents influences their prosocial or antisocial behaviors (Donovan, 1975; Hogan, 1973), life values (H. Park, 1983; Ryff, 1989), and their eventual success. Adolescents who have achieved ego-identity are able to use adaptive defense mechanisms, achieve positive self-esteem (Berzonsky & Adams, 1999), and use stable decision-making strategies, even under stress (Blustein & Philips, 1990). Furthermore, other research indicates that logical thinking and

wisdom-related knowledge drastically increases during adolescence (Richardson & Pasupathi, 2005). Thus, although this research indicates possible links between wisdom and ego-identity; little is known about the direct relationship.

It is assumed that adolescents who achieve positive ego-identity reveal characteristics similar to those of wise adults. While going through identity crises, adolescents have the opportunity to think deeply about who they are, what they want, and where they are going. This opportunity may promote cognitive and metacognitive reasoning ability, the ability to see different perspectives, to judge and make decisions, solve problems, and eventually find themselves. Furthermore, working through the identity stage assists adolescents with developing affective skills, such as empathy, gratitude, joy, and a sense of responsibility. Through this developmental process, it is assumed that adolescents not only enhance their intellectual capability but also promote their social skills, creativity, and resiliency which may influence their life philosophy and well-being. However, current wisdom studies with adolescents have not attempted to support this systematic connection.

Thus, exploring how adolescents demonstrate wisdom and how their identity development is related to their wisdom will give valuable insight to educators and developmental psychologists who help adolescents navigate their identity crises positively and achieve well-being. We admire wise individuals because it seems that they can regulate their behaviors and facilitate attainment of a good life. They seem to cooperate and manage intrapersonal conflicts, as well as interpersonal conflicts. This is desirable not only as a group member within society, but individually as we are our own constructors of well-being (Kunzmann, 2004). Better knowledge about the relationship

between wisdom and ego-identity development can be used to promote wisdom among adolescents and help them positively overcome their identity crises, enhance emotional well-being, and achieve a more positive life. When an individual obtains emotional well-being, they may be able to resolve domestic, ethnic, interrelational, and intrapersonal conflicts. Individual well-being may bring people more into harmony, resulting in a less conflicted inner world. Therefore, since research reports that wisdom-related knowledge is improved during adolescence (Richardson & Pasupathi, 2005), and wisdom is only loosely correlated with age (Jordan, 2005), exploring adolescents' wisdom may be worthwhile in order to promote wisdom in adolescents.

Background to the Problem

Psychological studies of wisdom rely primarily on a cognitive approach (Bassett, 2005). There is broad agreement, however, that wisdom has multidimensional aspects that may interact (Baltes & Staudinger, 2000). Several scholars view wisdom as a holistic process combined with personality, affect, cognition, behaviors, will, and life experience (Birren & Fisher, 1990; Brugman, 2000; Chandler, 1991; Randall & Kenyon, 2001). Eastern concepts of wisdom, on the other hand, not only include innate traits like intuition and compassion but emphasize mental discipline to seek wisdom in order to benefit others. Eastern wisdom includes flexibility, honesty, sensitivity, understanding, compassion, altruism, and a balanced state of mind, which allows individuals to accept the reality and solutions around them (Takahashi, 2000).

Integrated intelligence and personality are closely related to what has been described as wisdom-related performance as well as social intelligence such as perspective taking, creativity, and moral reasoning (Staudinger, Lopez, & Baltes, 1997;

Sternberg, 1986). Wise people seem to possess a deep understanding of who they are and a knowledge of their weaknesses and strengths. They know what they know, what they do not know, what they can know, and what they cannot know given the limitations of presented knowledge (Meacham, 1990).

Some studies indicate that emotional disposition boosts the development of wisdom in various ways. Emotional stability can be facilitated by a stimulating social environment, exposure to good educational systems, and a supportive family environment. Certain emotional experiences and dispositions are fundamental to the acquisition of wisdom as well (Kunzmann & Baltes, 2005). Personal concerns integrated with moral concerns may be an aspect of wisdom (Damon, 2000).

A significant relationship between moral reasoning and wisdom-related knowledge was measured by Berlin's wisdom paradigm (Pasupathi, Staudinger, & Baltes, 2001). Loosening egocentrism is one of the central characteristics of acting wisely (Rowson, 2008). It is reported that personal traits and self-concept are related to wisdom-related knowledge (Baltes & Staudinger, 2000). Open-mindedness (Staudinger & Pasupathi, 2003), and unobtrusiveness are reported as personal traits of wisdom (Holliday & Chandler, 1986).

Other indicators of developmental potential have been discussed among wisdom scholars. Intellectual abilities, which enhance dramatically during adolescence, serve as resources of wisdom. Many researchers have indicated out that the increase of intellectual ability during adolescence may be an important aspect of wisdom (Klaczynski & Narasimham, 1998; Piaget, 1932; Sternberg, 2003). Piaget, for example, noted that qualities such as intelligence, autonomous morality, multiple viewpoints, ability to catch

consensual or integrated cues, and rules of right and wrong, are expected to increase during adolescence (Piaget, 1932). Adolescents are able to think abstractly using hypothetical thinking and information processing strategies. They are able to look at the multiple aspects of a situation and use self-reflective thinking (Case, 1992; Piaget & Inhelder, 1973). Decision making competence increases during adolescence, including the ability to measure potential risks and consequences, using cautious actions, and seeking professional help (Lewis, 1981). Adolescents develop the ability to use social and contextual cues in understanding others during adolescence (Barenboim, 1981). Perspective-taking ability, which amplifies during adolescence (Selman, 1980), is the profound ability to integrate intrapersonal and interpersonal factors. During adolescence, autobiographical experiences and other experiences increase. This may be the underpinning of the acquisition of knowledge about self and the world. Such knowledge is the bedrock for wisdom, wise thinking and action (Richardson & Pasupathi, 2005). Thus, Richardson and Pasupathi (2005) consider adolescence and young adulthood to be the key period for wisdom-related development.

The Berlin School researchers, Pasupathi, Staudinger, and Baltes (2001), studied adolescents' wisdom-related knowledge and judgment based on explicit theories of wisdom. Their study showed that adolescents reveal strong growth potential in the realm of wisdom. The study showed that adolescence is the beginning of the wisdom development period as they become wiser with age more like adults. Crystallized intelligence, verbal comprehension skills, including verbal fluency, vocabulary and general information, is negatively related to wisdom-related performance. Age differences in intelligence did not fully describe the age differences in wisdom-related

performance. Adolescent girls outperformed boys with the wisdom-related performance. Pasupathi, Staudinger, and Baltes showed that adolescents demonstrated lower levels of wisdom-related knowledge and judgment than adults. Staudinger and Pasupathi (2003) suggested that intelligence and personality appeared as the strongest predictors of wisdom-related performance among adolescents while the interface is the strongest predictors of adults (Staudinger & Pasupathi, 2003). The study implied positive development for wisdom among adolescents.

Other Berlin School researchers looked at the meta-level criteria of life span contextualism, value relativism, and recognition of uncertainty based on ability during adulthood rather than during adolescence or childhood (Baltes, Smith, & Staudinger, 1992). Adolescent girls have more practice than boys in talking about emotions, thoughts, reactions, and interpretations of experiences. Thus, they may have more chance to develop moral reasoning, sexuality, and coping strategies than boys. Although these studies concluded that wisdom-related knowledge and judgment develops after early adulthood, they demonstrated the developmental potential of wisdom-related characteristics during adolescence.

Erikson's research (1902-1994) focused on how peoples' sense of identity develops. He argued that how people develop or fail to develop abilities shapes peoples' beliefs about themselves. For example, people who achieve a positive ego-identity become productive and successful members of society (Erikson, 1975). Erikson explained how to master each developmental stage, how to become productive and well-adjusted members of society, and what the types of problems, crisis, and developmental delays there are. If each stage is managed well, individuals may be able to obtain a

certain *virtue* or psychosocial strength. In contrast, if this does not happen, individuals may develop mal-adaptation that may jeopardize future development. Erikson's theory supports the idea that although adolescence may not be a peak period for wise action (Richardson & Pasupathi, 2005), adolescence may be the time of an escalating cognitive and affect dimension of wisdom. During adolescence, young people begin to develop their identity by endeavoring to understand who they are, what they know, and where they are going. This shows that adolescents may be able to develop wisdom, wisdom-related knowledge, and action with the right scaffoldings. However, this is just an assumption and how it happens is not yet well understood.

Marcia (1966) suggested four ego-identity statuses: identity achievement, moratorium, foreclosure, and diffusion. Identity achievers have explored identity alternatives and have made their own decisions with their own identity orientations. Adolescents with moratorium status are still in the process of exploring, still confused, and trying to find a compromise between social demands, parents' wishes, and their own abilities. Foreclosures have not finished exploring, and their parents' wishes or goals become theirs; whereas, identity diffusions have not explored identity alternatives, and the choice of occupation, religion, or politics could be easily abandoned due to incidental changes (Marcia, 1966). Studies support the conclusion that individuals with identity achievement are more mature than those with diffusion (Meeus, Idedma, Hersen, & Vollebergh, 1999), while individuals with moratorium are considered more mature than those with foreclosures (Waterman, 1982).

Berzonsky and Adams (1999) analyzed ego-identity status with individuals' orientation of determination. Identity achievement and moratorium use an information

orientation while foreclosure uses norm orientation, and diffusion uses a diffuse/ avoidant orientation. Information orientation is related to positive and successful coping strategies, problem-focused coping, and to openness to experience. Information orientation is negatively related to other-directedness, frailty effects of anxiety, dependence on wishful-thinking, and emotional distancing. Diffuse/avoidance orientation is related negatively to quality of peer relationships, academic achievement, and self-esteem. Diffuse/avoidance orientation is related positively to maladaptive decisional strategies, drugs and alcohol problems, and depressive reactions (Nurmi, Berzonsky, Tammi, & Kinney, 1997). In other studies, information orientation is positively related to well-being; diffuse/avoidant (identity diffusion) is related negatively related to well-being; and normative orientation (Foreclosure) does not clearly demonstrate the relationship between well-being and the foreclosure identity style.

Although many studies have investigated Korean subjects adolescents' ego-identity, little research has focused on wisdom. There are studies showing the relationship between ego-identity and certain aspects of wisdom. Kim (2005), for example, studied the ego-identity status and social problem solving ability, and showed that ego-identity scores are correlated positively with social problem solving ability. Other Korean studies confirmed the positive correlation between meaning of life and ego-identity (H. Park, 1983). Park found that individuals with high ego-identity reveal high creativity and meaning of life while individuals with low ego-identity often feel meaninglessness in life. Song (1998) reported that individuals with a positive self-concept made an effort to find the meaning of life even within hostile environments and life threatening experiences. Song's results detailing the positive relationship between wisdom, the meaning of life,

social problem solving skills, and positive self-concept, can be thought of as potentials for wisdom development. Wisdom development requires unique challenging life experiences, and learning wisdom-related knowledge (Klaczynski & Narasimham, 1998). Adolescents with identity achievement tend to discover their life goals and take responsibility for their decisions. On the other hand, individuals with a negative self-concept fail to find the meaning of life, find it difficult to maintain their meaning of life, and fall into a sense of valuelessness and emptiness (I. Song, 1998). Many researchers provide evidence to suggest ways to structure self identity, influence meaning of life, establish goals, and build value (Jang, 1994; E. Song, 1999). Thus, development of ego-identity is an important aspect of Korean adolescent development in order to facilitate an individual's successful self-actualization.

The present study aims to assess the relationship between wisdom and identity status. Even though few studies have shown any relationship between wisdom and identity status of adolescents, many studies on adolescents' positive development illuminate the potential relationship between identity styles and wisdom during adolescence. The results of this research may be able to elucidate the relationship between ego-identity and wisdom and the role of wisdom as developmental milestones during adolescence. Furthermore, this study may bring about a better understanding of human development and its relationship to the attainment of individual well-being and happiness and a harmonious society. Helping adolescents to uncover their ego-identity may have a powerful and permanent effect on their wisdom development and achievement of well-being. At the same time, helping adolescents find their own capability, life values, and life philosophy is an important goal of educators.

Significance of the Study

Adolescence is the peak period of positive human development (Piaget, 1932; Piaget & Inhelder, 1973) as well as a period of sudden changes in physical, intellectual, and psychosocial development. Some adolescents may adjust to the puberty period well, whereas some may not. Encountering adolescents' maladaptive behaviors such as poor decision making, lack of empathy, lack of problem-solving skills, and lack of the sense of responsibility is not shocking news anymore. It is reported that during adolescence, disruptive behaviors related to school and social relationships increase due to difficulties of puberty-related mood regulation (Marcus, 2007). Changes in intellectual and biological abilities may conflict within adolescents and make it difficult for them to deal with intrapersonal and interpersonal issues.

This study gave a better understanding of the mechanisms that shape adolescents' ego-identity, which could in turn helping them become more valuable, happy, and enjoyable, and reduce conflicts within themselves and with others. This study hoped to help adolescents promote understanding of the link between self and their identities and move them towards a more transpersonal value system, a system that represents the highest level of human growth and one that leads to a more harmonious human society. On a smaller scale, this study hoped to offer insights into what could translate into a study of educational means that could boost adolescents' identity development and ultimately help them to be wise. Unlocking the secrets of adolescents' wisdom and understanding its function and dimension in their identity status is a worthwhile endeavor within a more inclusive educational goal.

The assumptions that serve as the basis of this study shift the locus of research attention from egocentrism to a broader sense of self. The study assumed that: (1) knowledge and experience of wisdom expand individuals from self-centeredness to other-centeredness enabling them to see themselves in a larger context and helping them to eliminate smaller conflicts; (2) obtaining wisdom provides adolescents greater resilience and well-being and helps them to live more meaningful and self-sufficient lives; and, (3) obtaining wisdom helps adolescents achieve ego-identity.

Problem and Purpose of the Study

The formation of ego-identity appears to be related to the development of wisdom-related knowledge as well as wise behaviors and actions. However, few studies have analyzed the systematic interaction between wisdom and ego-identity status among adolescents. Thus, this study attempted to discover how adolescents' ego-identity stage relates to wisdom, how successful navigation of the identity crisis relates to wisdom, and how development is involved in the development of wisdom. Even though wisdom research has a long tradition, research on wisdom has focused more on theoretical rather than empirical studies (Kunzmann & Baltes, 2005). This study contributed to the empirical body of knowledge concerning the development of wisdom during adolescence. Further, most of the wisdom related studies are produced in Western culture, whereas almost no wisdom research has dealt with Korean data, especially wisdom of adolescents. Attempting to find educational means to positively alter and/or shape adolescents' wisdom requires a much better understanding of how adolescents use their wisdom generally or in certain situations.

Thus, the purpose of this study was to examine the relationship of wisdom and identity status for adolescents (aged 18-22 years old) for Korean and American college students. This study represents one of the first empirical wisdom studies in a Korean context. This study investigated cross-cultural, and age differences in wisdom and ego-identity development for late adolescents. Specifically, the analysis includes a comparison of the wisdom dimensions (cognitive, reflective, and affective) unique to adolescent identity (achievement, moratorium, foreclosure, and diffusion) to discover any significant relationships among wisdom scores in four ego-identity status measurements. This study determined, for the late adolescent participants, the following: (1) the influence of culture and age variables and their interaction effects on identity achievement and wisdom; (2) ego-identity statuses and wisdom dimensions; and (3) the relationship among ego-identity statuses and wisdom dimensions.

Theoretical Framework

The potential connection between Erikson's identity development and wisdom has been discussed by researchers (Erikson, 1968; Holliday & Chandler, 1986). However, more empirical research on adolescents' wisdom and ego-identity is necessary to give us insight into the interaction and relationship between the two. This study utilized the implicit theory of wisdom and Erikson's psychosocial human development, especially the ego-identity achievement versus identity diffusion stage as theoretical framework. Some Western wisdom studies have utilized explicit theories constructed by expert theorists and researchers which emphasize the cognitive dimension of wisdom (Baltes, 1993). Implicit theories of wisdom, on the other hand, look at how lay people map core concepts of wisdom (Clayton & Birren, 1980; Holliday & Chandler, 1986; Sternberg, 1986).

Implicit Eastern wisdom theory, for example, includes flexibility, honesty, sensitivity, compassion, understanding, altruism, gratitude, harmonious mind and body, and acceptance of reality as characteristics of wisdom (Clayton & Birren, 1980; Takahashi, 2000). Since many wisdom researchers agree that wisdom is a multidimensional function (Birren & Fisher, 1990; Brugman, 2000; Chandler, 1991; Randall & Kenyon, 2001), a multimensional wisdom scale was adopted for the study. Thus, the Ardelt's (2003) Three Dimensional Wisdom Scale (cognitive, reflective and affective) was adopted which is based on Clayton and Birren's (1980) definition of wisdom.

According to Erikson, identity achievement is the main psychosocial developmental goal during adolescence, yet this age and stage indicates that adolescents may be able to disclose wise ideas or behaviors. To investigate ego-identity of adolescents, the study utilized Marcia's *Ego-identity Status (EIS)* which was developed from Erikson's ego-identity and identity diffusion model of psychosocial development. EIS has four identity statuses—identity achievement, moratorium, foreclosure, and diffusion— where each is located on the spectrum between identity achievement and diffusion. This study used the *Revised Version of the Extended Objective Measure of Ego-identity Status (RV-EOM-EIS)* (Bennion & Adams, 1986) since it helps to obtain more objective and accurate scores than the highly involved interviews used by Marcia.

Research Questions

The research questions used to guide the investigation in this study were as follows:

1. How do culture and age influence wisdom dimensions and ego-identity statuses among late adolescents?

2. What are the mean differences in wisdom dimensions and the ego-identity statuses between Korean and American adolescents?
3. What is the relationship between wisdom dimensions (cognitive, reflective, and affective) and ego-identity status (identity achievement, moratorium, identity diffusion, and foreclosure)?

Definition of Terms

Adolescence refers to the transitional stage between childhood and adulthood, age period of 10 to 22. The Society for Research on Adolescence divided adolescence into early adolescence (10-15), mid-adolescence (15-18), and late adolescence (18-22) classification (Goossens, 2006). This study focused on the late adolescent populations.

The cognitive wisdom dimension refers to an individual's capability to understand life. It includes an individual's abilities such as knowledgeable, experienced, intelligent, pragmatic, and observant qualities when comprehending the events and nature of life (Ardelt, 2000).

The reflective wisdom dimension refers to the meta-cognition including introspective and intuitive qualities which assess the degree of overcoming subjectivity and projection by examining phenomenon with different perspectives (Ardelt, 2003).

The affective wisdom dimension refers to the existence of positive emotions (empathy and compassion) and behaviors such as understanding, empathetic, peaceful, and gentle characteristics toward others in wisdom (Ardelt, 2003).

Identity achievement refers to individuals who have already experienced a crisis period and are ready to commit to an occupation and ideology. Identity achieved

individuals have made their own decisions with their own identity orientation, not orientation directed by parents or others (Marcia, 1966).

Moratorium is the identity status in which individuals are still in a crisis period. Whether they are committed or not is ambiguous. Adolescents are confused and trying to compromise social demands, parents' wishes, and their own ability (Marcia, 1966).

Foreclosure is the identity status in which individuals have not experienced a crisis but are expressing commitment. The parent's wishes or goals become the adolescent's goals and he or she does not distinguish what s/he wants from what the parent has decided (Marcia, 1966).

Identity diffusion, on the other hand, is the status which shows that individuals may or may not have experienced a crisis period. Adolescents show a lack of commitment, therefore they have not yet decided on an occupation, nor have they thought or cared about their future (Marcia, 1966).

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to investigate how wisdom and the ego-identity status of adolescents are related, and how wisdom scores and dimensions differ in socio-cultural and age groups. Therefore, relevant literature begins with a discussion of philosophical and theoretical frameworks of current theories, research, and research methodology related to adolescents' development, with a focus on their wisdom and ego-identity. The first part of this chapter outlines the history of wisdom research in both Western and Eastern cultures, along with the definitions and dimensions of wisdom. This discussion is followed by a review of identity development and identity status based on Erickson and Marcia's theories. This is followed by a description of current research on wisdom and ego-identity for both Western and Korean studies. The final part of this chapter presents adolescents' developmental potential for wisdom-related performance and knowledge, synthesizing studies on identity development and wisdom.

Background and Definition of Wisdom

Wisdom has been the most desirable virtue in both Western and Eastern cultures. Historically, the concept of Western wisdom is characterized by three parts: 1) practical knowledge, including justice and reasoning, 2) relationship with

god, and 3) spiritual and ethical ability to see the nature of the world (Adler, 1952; Bates, 1993; Cottingham, 1996; Durant, 1926; Hadot, 1995; Magee, 1998). While the concept of Eastern wisdom focused more on intuitive and enlightened qualities and obedience toward nature as well as positive emotion and behaviors (Birren & Svensson, 2005; Cleary, 1991; Dyer, 1998; Moacanin, 2003; Takahashi, 2000; Yutang, 1938).

Western Wisdom

According to the literature, Sumerians referred to wisdom as practical advice for daily living. Sumerian culture pursued happiness in terms of material enjoyment (Birren & Svensson, 2005). Egyptians, on the other hand, emphasized proper behavior regulation and modesty (Brugman, 2000). They discouraged arrogance and encouraged self-regulation, which seems to share a similarity with the Eastern way of life. Socrates advocated investigation of the natural world. He developed the *Socratic Method* to seek truth by questioning everything in order to understand the nature of the world (Durant, 1926). He declared that only God is all-wise. Humans are somewhere in between the wise and the ignorant. Wise Humans are the lovers of wisdom (Adler, 1952). Thus, philosophers are wisdom (*Sophia*) lovers. Plato pursued the virtue of reasoning and reflecting the truth with directed conduct. He accentuated taking care of one's own soul, being thankful, and finding the ultimate meaning of life and the nature of the universe and mankind (Magee, 1998). Aristotle, on the other hand, highlighted wisdom as the speculation of theology by using metacognition (Adler, 1952). He stated that wisdom is the highest knowledge, and it is speculative rather than practical.

Wisdom was strongly related to Christianity and the relationship with God. The Hebrews thought the wise human was the person who had a strong relationship with God. Having the fear of the Lord was the foundation of wisdom (Bates, 1993). King Solomon was considered to have divine wisdom. He had a sense of justice, intelligence, and political and technical wisdom. He used his wisdom practically to rule his people (Brugman, 2000). St. Augustine proposed that intelligence has two parts: wisdom as timeless, and eternal virtue and *scientia* as knowledge of the material world. Thus, he argued that wisdom seekers should isolate themselves from daily concerns (Bates, 1993). Thomas Aquinas, who is the first person who distinguished Western philosophy from Christian values, suggested that intelligence has three parts: wisdom, science, and understanding. Wisdom is the highest cause of judging all and putting things in order (Aquinas, 1952).

During the Renaissance, the Western value of wisdom focused more on reasoning than on religious value. Montaigne, a French writer, illustrated wisdom as a critical attitude. The wise person was the one who was aware of ignorance and had the ability to harmonize with nature. Self-knowledge, knowledge of the world, and self-management were important qualities of wise people (Brugman, 2000). Descartes, a French Philosopher, emphasized cognition through reflection, reason, doubt, and ethical deliberation (Magee, 1998). Locke said wisdom is living by the right and careful use of one's thoughts and reason (Cottingham, 1996). Kant stated that wisdom is the foundation of philosophy and emphasized the law of reason (Hadot, 1995). Schopenhauer stressed the objective view of the world without subjective bias (Durant, 1926). Jung, a psychoanalyst and psychologist, emphasized that attaining the state of being wise should

be the goal of humanity (Jung & von Franz, 1964). John Dewey said that the wise person is one whose actions are based on knowledge. He said judgment should be balanced in the process of further inquiry (Dewey, 1910).

Eastern Wisdom

Eastern wisdom, on the other hand, focused on intuitive and enlightened understanding of the relationship between the natural world and the Divine (Birren & Svensson, 2005). Eastern culture understood wisdom as intuitive ability rather than as knowledge. In ancient Indian philosophy, wisdom is separated from the sensory world. The wise people have an intuitive understanding of the nature of life and death (Birren & Svensson, 2005). Buddha's teaching was delivered through the middle way *(mid path).* Understanding Buddha's enlightenment is knowing that all life is suffering, suffering is caused by desire, wisdom is the quieting of all desire, and the eightfold path is the way to the cessation of suffering. Thus, the noble eight paths specify the rule of this way of living which can be the path of obtaining wisdom as well as enlightenment. They are: 1) right understanding, 2) right thought-purpose or aspiration, 3) right speech, 4) right action, 5) right livelihood, 6) right effort, 7) right mindfulness, awareness and attentiveness, and 8) right concentration, or meditation (Birren & Svensson, 2005). These eight categories are thought to provide a balanced and harmonious life individually and socially (Moacanin, 2003). Moacanin interprets the first two categories as having to do with the development of wisdom. The next three categories have to do with ethical conduct, and the last two deal with mental discipline. The eight paths are interrelated, and each helps the development of the other. They share the same mechanism of a wisdom-related process. Buddha emphasized making decisions through careful personal

observation and analysis, not through the teachings of authorities, teachers, and/or elders (Dyer, 1998).

Lao-tzu, the founder of Taoism, stressed seeking to have little, being benevolent without trying, and being trusted without speaking. The wise gain without seeking and succeed without striving. He rejected reason and advocated intuition and compassion (Cleary, 1991). He underlined obedience to nature and the refusal to interfere in the natural course of things (Durant, 1926). Confucius highlighted wisdom in Five Chings and in nine classics, books which help people to purify their own hearts, resulting in both self and social development. He laid emphasis on morality, right living, and social order based on individual cultivation (Yutang, 1938). He emphasized knowing one's own weaknesses and strengths as a characteristic of wisdom (Yutang, 1938). Eastern wisdom is based on the way of living to fit in and benefit others rather than on pursuing knowledge, reasoning, or reaching God.

The teaching of Mencius, a Chinese Confucianist, is based on the innate goodness of the individual. He emphasized the moral character of an individual (Ames, 2002). He argued that every human has a heart-mind which feels for others. He argued that this goodness can be cultivated through education and self-discipline. According to Mencius, goodness can be misspent through neglect and negative influences, but we never loose it entirely. His entire system of thought is based on humanity. According to Mencius, sympathy (co-humanity), shame (rightness), deference (ritual propriety), and judgment (wisdom) are the four basic qualities which are *cardinal virtues* (Ames, 2002). Anyone who has the four virtues within and knows how to develop them is able to protect the entire world. Anyone who is unable to live with the virtues is not even able to serve his

parents (Ames). If our virtues are left untended we can be no more than merely human. If we nurture our four virtues attentively through education, formation by other-centeredness, or fulfillment of social norms, we can bring peace and justice to the entire world. For Mencius, moral failure is the failure to develop one's heart-mind. Thus, Mencius' model emphasized both a *nature* (humans are born with good nature) and a *nurture* model (humans can be developed even better by right environment).

One of the Korean philosophers, Yulgok Yi I (D. Park, 2004), distinguished a sage from a wise man and a scholar. A sage is someone who gains knowledge by studying objects and the world and accomplishes the truth and righteousness with mindfulness. Yulgok argued that only nature has the truth. A sage should be able to not only think and tell the truth but act within the truth. A wise man is someone who achieves these qualities but not yet in a consistent manner, whilst a scholar is still in the learning process (D. Park). He argued the difference among them is just a paper's back and front—a slight difference. Anybody can be a sage depending on how much we strive (D. Park). Yulgok suggested several virtues to be wise, including having the right attitude, dressing appropriately, pursuing propriety, showing gentle attitude and facial expression to show respect to elders and parents, managing family with compassion and solemnity, distinguishing right from wrong, taking care of citizens, and pursuing modesty and universal justice (D. Park).

Modern Wisdom Theories

Sternberg (2003), one of the leading scholars in the wisdom research field, viewed wisdom as a metacognitive style plus sagacity. Sternberg argues that wisdom is "about balancing various self-interests (intrapersonal) with the interests of others (interpersonal),

and of other aspects of context in which an individual lives (extrapersonal)." (p. 152) Sternberg sought the implicit theories of wisdom and its relations to creativity and intelligence (Sternberg, 1986). He made participants sort the behaviors of wise people and found the highest loadings of reasoning ability, sagacity, learning from ideas and environment, judgment, expeditions use of information, and perspicacity (Sternberg, 1986, 1990). Other studies which examined the lay conception of wisdom are related to a combination of cognitive (extraordinary knowledge about the self and the world), social (empathic concern and ability to give good advice), emotional (emotion regulation), and motivational (orientation toward personal growth) capability (Kunzmann & Baltes, 2005).

The Berlin School, on the other hand, used explicit theories of wisdom, and it has the reputation as the richest vision on wisdom. The school identified five criteria including two basics (rich factual knowledge about human life and rich procedural knowledge about life) and three meta-criteria group (life-span conceptualism, value relativism, and knowledge about recognition and management of uncertainty) (Baltes et al., 1992). They argued that wisdom is not a personality trait but an expert system which manages and conducts life (Baltes & Staudinger, 2000). Baltes and colleagues used hypothetical life problems to assess wisdom of the respondents. Their wisdom was rated by at least two judges using five wisdom criteria (rich factual, rich procedural knowledge, life span contextualism, value relativism, and the recognition and management of uncertainty. They found that clinical psychologists tended to score higher than any other professionals (Staudinger et al., 1997; Staudinger, Maciel, Smith, & Baltes, 1998). Open to experience, psychological mindedness, creativity, and certain cognitive thinking styles

were positively correlated with wisdom scores (Staudinger et al., 1997; Staudinger et al., 1998).

Kunzmann and Baltes (2005) summarized general features of wisdom based on Baltes' (1993) work, which has been reflected on cultural and historical wisdom. The list of features is:

- Handles important and difficult issues of life
- Exemplifies outstanding "superior" knowledge, judgment, and advice
- Is a true integration of knowledge and character, mind and virtue
- Engages in using amazing scope, depth, and balance
- Is difficult to achieve but easily recognized
- Harmonizes and upholds individual and societal growth
- Embraces an awareness of the limits of knowledge and uncertainties of the world

Since the meaning and understanding of wisdom have changed throughout history (Birren & Svensson, 2005), no general definition of wisdom has been developed yet (Ardelt, 2003) Whereas psychological studies of wisdom are dominated by the cognitive approach (Bassett, 2005), there is a broad agreement on multidimensional aspects and the interactional functions of the dimensions of wisdom (Baltes & Staudinger, 2000). Lately, wisdom is regarded as a trait which we can observe during the decision making process (Birren & Svensson, 2005). Wisdom requires individuals' experiences, seeking information and solutions, and weighing alternative outcomes via high order and dialectical reasoning (Birren & Svensson, 2005). Moreover, psychological wisdom research includes individuals' self-management over emotions and over quick conclusions or actions.

Several scholars viewed wisdom as a holistic process combined with personality, affect, cognition, behaviors, will, and life experience (Birren & Fisher, 1990; Brugman, 2000; Chandler, 1991; Randall & Kenyon, 2001). Others viewed wisdom as cognitive ability using reasoning, judgment, reflecting, and finding solutions (Ardelt, 2000; Kitchener & Brenner, 1990). There is a third view which considers wisdom as the combination of interpersonal, intrapersonal and extrapersonal phenomenon to incorporate truth, needs, contexts, community, culture, nation, and people (Bates, 1993; Sternberg, 2003). Western concepts of wisdom concluded that intelligence and knowledge are not sufficient to lead to wise decisions (Birren & Svensson, 2005), even though traditionally wisdom had been characterized by intelligence and knowledge.

Eastern concepts of wisdom, on the other hand, not only included innate traits like intuition and compassion but emphasized mental discipline to seek wisdom in order to benefit others. Individuals can learn wise decision making by observing and cultivating their morality and right way of living. According to Takahashi (2000), Western and Eastern wisdom may focus on different philosophical traditions. Western wisdom focuses more on cognitive dimensions whilst Eastern wisdom consists of cognitive, reflective, and affective elements of wisdom (Ardelt, 2003). Eastern wisdom includes flexibility, honesty, sensitivity, understanding, compassion, altruism, and a balanced state of mind, which allow individuals to accept the reality and solutions around them (Takahashi, 2000). It is found that wise individuals have the ability to look toward the past with gratitude, try to serve in the present, and consider the future with responsibility (Clayton & Birren, 1980; Levitt, 1999).

Thus, combining existing definitions of wisdom with what we know of its history, the integrated characteristics of wisdom are as follows: 1) wisdom contributes to intrapersonal well-being, as well as interpersonal well-being, and that 2) wisdom is a multi-dimensional concept that includes personality traits (e.g. empathy, tranquility, will, open-mindedness, and positive affects); cognitive traits (e.g. reasoning, metacognition, creativity, judging, and dialectical integration); virtues and attitudes (e.g. morality, gratitude, justice, and righteousness); and sagacity (e.g. spirituality, intuition, and insight from special life experiences)

Ego-Identity Theories

Since Erikson proposed identity development as one of the stages of psychosocial development, ego-identity theories have been expanded and widely studied. The ego identity theories of Erikson and Loevinger, and Marcia's expansion of ego-identity development are discussed in this section.

Erikson and Loevinger

Erikson's (1902-1994) major work is a theory of psychosocial human development from birth to death. Erikson focused on how a sense of identity develops. He argued that how people develop or fail to develop abilities shapes their beliefs about themselves. For example, people who achieve a positive ego-identity become productive and successful members of society (Erikson, 1975). Erikson's stages are trust versus mistrust; autonomy versus shame and doubt; initiative versus guilt; industry versus inferiority; identity versus identity confusion; intimacy versus isolation; generativity versus stagnation; and integrity versus despair. Each stage is linked to a general life span. For each stage, Erikson explained how to master that stage and how to become

productive and well-adjusted members of society. He explained the types of problems, crisis, and developmental delays that can result when individuals do not achieve under the right environment and stimuli. If each stage is managed well, individuals may be able to obtain a certain *virtue* or psychosocial strength. This will help individuals get through the rest of the other stages. In contrast, if this does not happen, individuals may develop mal-adaptation and jeopardize future development.

Loevinger, on the other hand, concludes that *ego development* is surprisingly stable during the late adolescent and adult stages (Loevinger, 1976). Her notion of ego development is aligned with personality development such as motives, moral judgment, cognition, and perception (Kroger, 2004). The highest level of ego development is achieving the ability of integrating various aspects of the self into a coherent identity. Individuals who achieve ego development value individuality in themselves and others. The ability of taking perspectives in themselves and others is an important capacity and the indication of the ego development (non-egocentric, independent, other-centered). Loevinger's perspective shares an aspect of Gilligan's psychological and moral development of women (Gilligan, 1982). They both emphasize positive, helpful, responsible, mutual, and caring interactions with others. These aspects overlap in the dimensions of wisdom.

Both Erikson and Loevinger show that even though there is negative evidence that shows adolescence may not be a peak period for wise action (Richardson & Pasupathi, 2005), adolescence may be the time of a burgeoning cognitive and affect dimension of wisdom. During adolescence, negative emotionality, neuroticism, sensation seeking, low self-esteem, poor coping and emotion regulation, and impulsivity are at their lifespan

peak (Arnett, 1999; Cooper, Wood, Orcutt, & Albino, 2003). However, adolescence is the period that young people begin to develop their identity by endeavoring to understand who they are, what they know, and where they are going. Adolescents may develop wisdom, wisdom-related knowledge, and action with the right scaffoldings. If adolescents can achieve ego-identity in interaction with social and cultural surroundings, we can expect the positive development of adolescents. However, this is just an assumption that many researchers in the field anticipate. Empirical data are needed to test the hypothesized relationship between ego-identity and wisdom development.

Marcia's Ego-Identity Status

As Erickson admitted, describing the content of identity has not been very specific. A different operationalisation has been suggested by Marcia. To assess the facets of ego-identity between ego-identity and identity diffusion, Marcia used semi-structured interviews and an incomplete-sentence blank (Marcia, 1966). The variables he used are crisis and commitment related to occupation choice, religion, and political ideology. Marcia's ego-identity status (1966) suggested four identity styles: identity achievement, moratorium, foreclosure, and diffusion. Identity achievers and foreclosures are committed while moratoriums and diffusions are not. Identity achievers have explored identity alternatives, moratoriums are in the process of exploring, foreclosures have not finished exploring, and identity diffusions have not explored identity alternatives. Individuals in the identity achievement category have made their own decision with their own identity orientation not by parents or others. This does not mean they are completely free from other forces but they have the ability to reevaluate viewpoints and achieve solutions that give them to freedom to act (Marcia). Thus, they

are more stable and do not rely on the sudden environmental shifts or unexpected events. Whether or not individuals in the moratorium category are committed remains ambiguous. They are confused and trying to compromise social demand, parents' wishes, and their ability (Marcia). For individuals in the foreclosure category, their parents' wishes or goals become theirs and they do not distinguish what they want from what others have prepared for them. They may not be flexible and may even feel threatened when sudden changes come across which are against their parents' values (Marcia). For individuals in the identity diffusion category, in contrast, the choice of occupation, religion, or politics could be easily abandoned by sudden changes (Marcia). They may not be interested in ideological matters or they are interested in sampling everything which might be interesting to them.

Berzonsky and Adams (1999) analyzed ego-identity status with individuals' orientation of determination. Identity achievers and moratoriums use an information orientation while foreclosures use norm orientation, and diffusions use a diffuse/ avoidant orientation (Berzonsky & Adams, 1999). Information orientation is related to positive and successful coping stress and anxiety, problem-focused coping, and to openness to experience. Information orientation is negatively related to other-directedness, frailty effects of anxiety, dependence to wishful-thinking, and emotional distancing. Diffuse/avoidance orientation is related negatively to quality of peer relationship, academic achievement, and self-esteem. On the other hand Diffuse/avoidance orientation is related positively to delivering effects of anxiety, emotional distancing, other-directedness, maladaptive decisional strategies, drugs and alcohol problems, and depressive reactions (Nurmi et al., 1997). In their studies, information orientation

(identity achievement and moratorium) is positively related well-being; diffuse/avoidant (identity diffusion) is related negatively related to well-being; and normative orientation (Foreclosure) does not clearly demonstrate the relationship between well-being and the foreclosure identity style.

Research on Adolescents' Identity and Wisdom

Many studies have dealt with adolescent identity styles, although little empirical research on adolescent wisdom has been carried out (Richardson & Pasupathi, 2005). Ironically, most wisdom studies have been produced in Western culture during recent decades; whereas, almost no wisdom research has been studied in Korea, especially research on the wisdom of adolescents. Furthermore, few studies have shown any relationship between the wisdom and identity status of adolescents. Fortunately, some studies have illuminated the relationship between identity styles and well-being in adolescence. Some wisdom literature makes a connection to Erikson's psychosocial development since Erikson claimed that there is a connection between wisdom and the achievement of ego-identity.

Ego-Identity Research

Vleioras and Bosma (2003) studied the relationship between identity style and the psychological well-being of adolescents using the *Identity Style Inventory* (Berzonsky, 1992) and the scales of *Psychological Well-Being* (Ryff, 1989). The *Psychological Well-Being* scale consists of self-acceptance, environmental mastery, positive relations with others, purpose in life, personal growth, and autonomy (Ryff, 1989). It is interesting to note that all the dimensions of this well-being scale encompass multiple aspects of wisdom as important factors in personal growth. Vleioras and Bosma (2003) applied

these two scales to 230 adolescents aged from 18 to 23. They studied the strength of commitment within relationships with identity and psychological well-being and found that strength of commitment is positively related to all dimensions of psychological well-being and identity orientations except the diffuse/avoidant orientation (Vleioras & Bosma, 2005). Diffuse/avoidant orientation is negatively related to all dimensions of psychological well-being, the strength of commitment, and the information orientation. Norm orientation is related both positively and negatively to different facets of well-being.

Vleioras and Bosma's (2003) study found that all three identity styles were significant predictors of personal growth scores, which were higher in the information orientation and lower in normative and diffuse/avoidant orientations when one has a higher personal growth score. This may be evidence of the relationship between wisdom and identity status. It was revealed that normative and diffuse/avoidant orientation revealed the potential for development even though it is rather passive (Vleioras & Bosma, 2005). The study concluded that the orientation of seeking answers does not make a difference in psychological well-being. However, different identity styles may present differently when they are exposed to harsh environments. Berzonsky (1992) added that successful adaptation involves a balance to reduce conflicts and the information orientation style may maximize the adaptation.

The more self-exploration that students have engaged in (identity achievement and moratorium), the more they take tasks in a self-directed manner without seeking others' assurance and support (Berzonsky & Kuk, 2000). Adolescents with high level of ego development use more adaptive defense mechanisms (adaptive narcissism, internal

locus of control), achieve positive self-esteem, and are open to new experiences (Berzonsky & Adams, 1999). Identity diffusion adolescents showed low self-esteem and autonomy (Marcia, 1966) and high hopelessness scores (Selles, Markstrom-Adams, & Adams, 1994). Interpersonally identity diffused adolescents scored as isolated and were characterized as distant and withdrawn (Donovan, 1975). They reveal high self-monitoring behaviors in the ideological domain of identity. They tend to regulate their expressive self-representations according to social cues givens by others (Kumru & Thompson, 2003). Identity achieved individuals score well under stress and use more rational and planned decision-making strategies (Blustein & Philips, 1990). The identity achieved individuals have been shown to have reduced self-monitoring behaviors. This means that they do not need to regulate their expressive self-representation to maintain desirable public appearances (Kumru & Thompson, 2003). Moreover, Hogan (1973) found that high identity individuals to be more empathic, ethical, and socialized than low identity individuals (Hogan, 1973).

Thus, information orientation is considered the most mature identity style, and a diffuse/avoidant orientation the least mature, and the norm orientation is stated in the middle. These findings, however, conflict with Meeus (1996) and Meeus et al. (1999)'s studies. Meeus and Meeus et al. reported that identity achievers and foreclosures have the highest well-being, whilst moratoriums have the lowest. Their studies show that even though moratorium is considered a more mature style in terms of orientation, because of their confusion, crisis, and commitment status, moratoriums are still in a struggle. Those adolescents in the status of moratorium may need help to safely resolve their crisis, navigate their identity, and acquire positive psychosocial development.

Korean Studies of Ego-Identity

Although many studies have dealt with Korean adolescents' ego-identity, little research has focused on wisdom. The study of wisdom is a new field despite a long tradition of wisdom culture. There are some studies which show the relationship between ego-identity and aspects considered related to wisdom. Kim (2005), for example, studied the ego-identity status and social problem solving ability. She studied 363 male adolescents who attended vocational high school (10^{th} and 11^{th} graders). The results showed that the adolescents revealed the lower ego-identity scores, lower scores on emotional affects, and the scores are positively correlated with the social problem solving ability. The better ego-identity students showed more social problem solving ability (S. Kim, 2005). The male vocational adolescents revealed negative affect such as anxiety and depression. This can be interpreted that the students who attend Social Science High school have a goal of entering Universities while students in vocational school showed lower self-esteem because of the pressure on their academic performance (Good & Adams, 2008). They have already developed the sense of failing due to low academic achievement in school which can be translated into a less hopeful future (S. Kim, 2005).

Jeong (2005) studied the relationship among ego-identity, meaning of life, and career maturity. The Korean version of an ego-identity was used with 481 8^{th} and 11^{th} graders (A. Park, 2003). The subscales are self-esteem, self-acceptance, future assurance, goal orientation, self-orientation, and intimacy (total Cronbach's alpha = .94). Jeong (2005) used the *Purpose in Life Test* (Crumbaugh & Maholick, 1964) and *Career Maturity Inventory* (Crites, 1978) to assess the attitude and ability of career selection. The results showed that there is no significant gender and age difference in ego-identity score

(Jeong, 2005). However, 11th graders showed higher self-esteem and self-acceptance scores. The adolescents with higher GPA showed the highest ego-identity scores. On the same token, there was no gender and age difference on the *Meaning of Life* score while higher GPA is correlated to high scores on *Meaning of Life* measurement. The Career maturity score showed that there was no gender difference but age and GPA difference. Eleventh graders showed significantly higher scores especially independency and involvement score (Jeong, 2005). The study showed that there is significant positive correlation between self identity and career maturity score (.678), and moderate positive correlation between meaning of life and career maturation measurement (.49). This shows that individual with higher meaning of life showed higher career maturation (24%). The group with the highest self-identity score with highest meaning of life showed the highest career maturation score. Future assurance, self-management, and goal-orientation predict career maturation.

Other Korean studies confirmed the positive correlation between the score of meaning of life and ego-identity (H. Park, 1983). Park claimed that individuals with high ego-identity reveal high creativity and meaning of life while individuals with low ego-identity often feel tediousness and meaninglessness of life. Song (1998) reported that individuals with positive self-concept make an effort to find the meaning of life even with hostile environments and life threatening experiences. They tend to discover the meaning and goal of life along the way and take the responsibility whilst individuals with negative self-concept fail to find the meaning of life and difficult to maintain their meaning of life, and fall into valuelessness and sense of emptiness (I. Song, 1998). Many researchers provided evidence that shows how to structure self identity, influence meaning of life,

goals, and value building (Jang, 1994; E. Song, 1999). Thus, development of ego-identity is an important aspect of adolescent development in order to facilitate individual's adjustment and adaptation. Furthermore, it helps to enhance self-actualization of an individual.

Wisdom Research

Pasupathi, Staudinger, and Baltes (2001) studied adolescents' wisdom-related knowledge and judgment. Their samples were 146 adolescents aged from 14 to 20 years and a comparison sample of 58 young adults aged from 21 to 37 years. They used ill-defined life dilemmas (sexual experience, tests, friends' plans, divorce, suicide, and meaning of life) and raters assessed the responses with five wisdom criterion scores (rich factual knowledge, rich procedural knowledge, life span contextualism, value relativism, and recognition of uncertainty). The study showed that adolescents reveal strong growth potential in the realm of wisdom and as they become wiser with age just like adults. The ages between 23 and 26 years show the positive and significant age contribution to wisdom-related performance (Pasupathi et al., 2001). Age differences in intelligence did not fully explain age differences in wisdom-related performance. Gender difference was shown for adolescents while adults did not show the gender effect. Adolescent girls outperformed boys with the wisdom-related performance (Pasupathi et al., 2001). The study showed that adolescents demonstrated lower levels of wisdom-related knowledge and judgment than adults. This showed that during adolescence and early adulthood wisdom-related knowledge and judgment develops to adult levels. They concluded that age in wisdom-related knowledge and judgment develops after early adulthood. This does

not mean that wisdom-relevant characteristics, experiences, and contexts can be only obtained during adulthood.

Staudinger and Pasupathi (2003) studied age differences in wisdom-related performance. His sample was 148 German adolescents aged from 14 to 20 and 143 German adults aged 35-75. The subjects responded to wisdom-related tasks verbally and completed psychometric instruments of intelligence, personality, and personality-intelligence interface. The results showed that intelligence and personality appeared as the strongest predictors of wisdom-related performance among adolescents, while the interface is the strongest predictor in adults (Staudinger & Pasupathi). The study implied positive development for wisdom among adolescents. More Berlin School researchers looked at the meta-level criteria of life span contextualism, value relativism, and recognition of uncertainty based on ability during adulthood rather than during adolescence or childhood (Baltes et al., 1992). Relativistic and dialectic reasoning and reasoning with uncertain topics are relatively underdeveloped during adolescence compared to young adulthood (Kitchener, Lynch, Fischer, & Wood, 1993). However, adolescents showed significantly better performance on life span contextualism than meta-level criteria (Kitchener et al., 1993). This means that they first acquire a contextual perspective and this is more basic wisdom-related knowledge and judgment.

Gender differences in wisdom performance favoring girls were evident among adolescents. Adolescent girls have more practice than boys in talking about emotions, thoughts, reactions, and interpretations of experiences. Thus, they may also have more chance to develop moral reasoning, sexuality, and coping strategies than boys. These differences may support Gilligan's (1982) care-based moral development. Females have

a tendency to emphasize sharing life experiences, feeling, coping strategies, empathy, and socialization more than males. Skoe and Marcia, in fact, found that among college women, the relationship between the care-based score and identity was greater than justice-based measure and identity (Skoe & Marcia, 1991). Kitchner and Brenner (1990) used the *Reflective Judgment Interview* (RJI) to assess wisdom-related performance. They found that individuals who reached the highest stage (stage 7) make judgments based on recognition of the limits of personal knowledge and general uncertainty, which is assumed to be wise. The RJI is correlated with education and age among adolescents (Kitchener & Brenner, 1990).

Korean Wisdom Research

Two studies have been published regarding Korean wisdom research. One is about successful aging and wisdom (S. Lee & Cho, 2007), and the other discusses the role of wisdom in counseling psychology (No, 2001). Lee and Cho mainly discussed literature on the current aging issue and guided wisdom as a mean of successful aging. They did not provide any empirical wisdom research results in a Korean context, since there is essentially no psychological wisdom research published in Korea. However, they pointed out that there is no consistent result on the relationship between aging and wisdom. No reviewed literature in order to connect characteristics of wisdom and the role of counselors. She did not include any Korean empirical wisdom research but rather suggested theoretical frameworks for connecting wisdom and counselors. These two articles clearly show that little wisdom research has been published in Korea.

Characteristics and Developmental Potential of Wisdom among Adolescents

The developmental potentials for wisdom during adolescence have been discussed. This section will integrate some important indicators of wisdom and the characteristics of developmental potential of wisdom among adolescents.

Indications of Wisdom in Adolescence

Intellectual abilities enhance dramatically during adolescence. Many researchers confer specific intellectual capacities of adolescents as resources of wisdom, others discuss the integrated reasons—integration of environmental needs and adolescents' sensitivity of adaptation, for example. Most of them are theoretical assumptions and predictions which are considered to be the evidence of wisdom or to be developed toward the path of wisdom. However, few empirical studies have shown this. Table 1 shows the summary of the literature reviews.

Many researchers have pointed out that the increase of intellectual ability during adolescence may be the most important aspect of wisdom. Piaget, one of the most influential scholars in the field of cognitive human development, emphasized the qualities such as intelligence, autonomous morality, multiple viewpoints, ability to catch consensual or integrated cues, and rules of right and wrong, are expected to increase during adolescence (Piaget, 1932). As cognitive ability like higher-level thinking raise, adolescents' knowledge increases. Adolescents have the ability to think abstractly, use hypothetical thinking, use information processing strategies, look at multiple aspects of a situation, and manage self-reflective thinking (Case, 1992; Piaget & Inhelder, 1973). Decision making competence increases during adolescence. This also includes the ability of measuring potential risks and consequences, using cautious treatment, and seeking

Table 1

Developmental Upsurges as Indications of Wisdom Use during Adolescence

Authors	Characteristics		descriptions
(Selman, 1980)	Cognitive, intelligence	Perspective taking	Perspective taking ability increases during adolescence
(Barenboim, 1981)		Recognizing contextual cues	Adolescents are more likely to consider contextual and situational variables in understanding others (ability of using social cue)
(Piaget, 1932)		Integrated sense	Qualities like intelligence, autonomous morality, multiple viewpoints, ability to catch consensual or integrated cues, and rules of right and wrong are expected to increase during adolescence because of the increasing peer interactions
(Holliday & Chandler, 1986)		Judgment	deep understanding and judgment of events
(Case, 1992; Piaget & Inhelder, 1973)		High order thinking	Cognitive ability and higher-level thinking increase. They think abstractly, use hypothetical thinking, use information processing strategies, use ability to look at multiple aspects of situation, and manage self-reflective thinking.
(Keating, 1990) (Sternberg, 1998)		Knowledge	Speed, atomicity, breath of knowledge increase Intellectual capacity helps integration of different facets or types of knowledge
(Klaczynski & Narasimham, 1998)		Reasoning	Reasoning ability to reach conclusions and can provide appropriate reasons using reasoning process. This may be the evidence of wisdom-related knowledge. Deductive reasoning to obtain logical conclusion (Ward & Overton, 1990)
(Lewis, 1981)		Decision making	Decision making competence including the ability to measure potential risks and consequences, use cautious treatment, and seek professional help increases.
(Kogan & Pankove, 1972)	Creativity		Creativity components such as ideational flexibility, uniqueness, and fluency have been reported to in crease adolescence
(Sternberg, 1998)	Integrated pressure & needs	intrapersonal & interpersonal balance needs	Adolescents' abilities to balance ideas between their own and others and high interests are central features of wisdom. It opens the door for a balance of intrapersonal and interpersonal needs as necessity for wisdom
(Richardson & Pasupathi, 2005)		Experiences	Autobiographical experiences and other experience increase
(Sorrentino, Holmes, Hanna, & Sharp, 1995)		Uncertainty orientation	Uncertainty orientation increases. Education is positively related uncertainty orientation as a key capacity for attaining higher levels of cognitive development, moral reasoning ability, ego development

professional (Lewis, 1981). Speed and atomicity enlarge with breadth of knowledge (Keating, 1990). The ability to reach reasonable conclusions with reasoning processes remarkably amplifies during adolescence (Klaczynski & Narasimham, 1998). This may be the evidence of wisdom-related knowledge.

A conflicting argument about creativity and its development during adolescence is that some argue that it increases and the other argues that it decreases during adolescence. Creativity components such as ideational flexibility, uniqueness, and fluency have been reported to increase in adolescence (Kogan & Pankove, 1972). On the contrary, some have reported that during adolescence creativity seems to decrease because of the increasing family and social pressure to engage in conventional behaviors (Albert, 1996).

Adolescents develop the ability to use social and contextual cues in understanding others during adolescence (Barenboim, 1981). Adolescents' intellectual capacity boosts wisdom by helping integration of different facets or types of knowledge (Sternberg, 1998) and deep understanding and judgment of events (Holliday & Chandler, 1986). Perspective taking ability, which amplifies during adolescence (Selman, 1980), is a profound ability to integrate intrapersonal and interpersonal factors. Adolescents' abilities of balancing ideas between their own and others' interests are central features of wisdom according to Sternberg (1998). He argued that this opens the door for a balance of intrapersonal and interpersonal needs, which is a significant factor for wisdom development. Uncertainty orientation increases with age during adolescence. Education may be positively related to uncertainty orientation as a key capacity for attaining higher levels of cognitive development, moral reasoning ability, and ego development (Sorrentino, Holmes, Hanna, & Sharp, 1995). During adolescence, autobiographical

experiences and other experiences increase. This may be the underpinning of acquisition of knowledge about self and the world. Such knowledge is bedrock for wisdom and wise thinking and action (Richardson & Pasupathi, 2005). Thus, Richardson and Pasupathi consider adolescence and young adulthood to be the key period for wisdom-related development.

Multidimensional Nature of Wisdom

In the literature, wisdom is reported to be multidimensional nature. It includes integrated and holistic knowledge, emotion factors like emotion regulation, and emotional experiences and reactions, interaction with environment and socio-cultural cues, and cognitive abilities. Integrated intelligence and personality are closely related to what has been described as wisdom-related performance as well as social intelligence. Some studies support that emotional disposition boosts the development of wisdom in various ways. Emotional stability can be facilitated by a stimulating social environment, exposure to good educational systems, and supportive family environment. Environmental factors can boost adolescents' emotion when an individual engages in wisdom-related thinking and time-consuming problem seeking processes (Kunzmann & Baltes, 2005). Certain emotional experiences and dispositions are fundamental to the acquisition of wisdom as well (Kunzmann & Baltes, 2005). Personal concerns integrated with moral concerns may be an aspect of wisdom (Damon, 2000).

A significant relationship exists between moral reasoning and wisdom-related knowledge as measured by Berlin's wisdom paradigm (Pasupathi et al., 2001). Loosening egocentrism is one of the central characteristics of acting wisely (Rowson, 2008). It is reported that personal traits and self-concept are related to wisdom-related knowledge

(Baltes & Staudinger, 2000). Open-mindedness (Staudinger & Pasupathi, 2003), and unobtrusiveness are reported as personal traits of wisdom (Holliday & Chandler, 1986). In contrast, adolescents consider themselves as vulnerable. They have a tendency to overestimate risks which lead to caution when dealing with uncertainty (Richardson & Pasupathi, 2005). They seem to shrink when they are faced with more complex problems which resulted from lack of experiences.

Chapter Summary

Both Korean and American studies concluded that adolescents with positive identity achievement bring positive viewpoints of their lives and working in society. Wisdom has a long historical tradition in both Western and Eastern contexts. Western wisdom emphasizes knowledge and high order thinking ability as adequate characteristics of wisdom, while Eastern tradition emphasizes pragmatic usage as an integrated function of the human mind and behaviors. Many theoretical assumptions have been made that adolescents have developmental potential of wisdom while little research has proven it. The increasing developmental qualities such as intelligence, perceptivity, and integrated sensitivity are the evidences of wisdom development among adolescents. No empirical study has dealt with wisdom in a Korean context. Some Western research on wisdom has shown that even though wisdom-related knowledge increase dramatically during adolescence, their level of wisdom-related knowledge and judgment are lower than adults.

CHAPTER III

METHODOLOGY

This chapter presents the brief conceptual framework of the study, research participants, research instruments, data collection procedures, and data analysis methods. This study adapted Ardelt's view on wisdom and Marcia's ego-identity status to investigate adolescents' cognitive and psychosocial development.

Conceptual Framework

The purpose of this study was to examine the relationship between wisdom and the ego-identity status among adolescents in two different cultures. Specifically, the mean scores between Korean and American adolescents how demonstrate score on indicators of wisdom (cognitive, reflective, and affective) as well as the four statuses of ego-identity (achievement, moratorium, foreclosure, and diffusion), and what the mean scores represent among the subjects. The results indicate how the main and interaction effects between culture and age influence wisdom and the ego-identity of adolescents. Further, the results examine how two sets of ego-identity statuses and wisdom dimensions correlate with each other (refer to Figure 1).

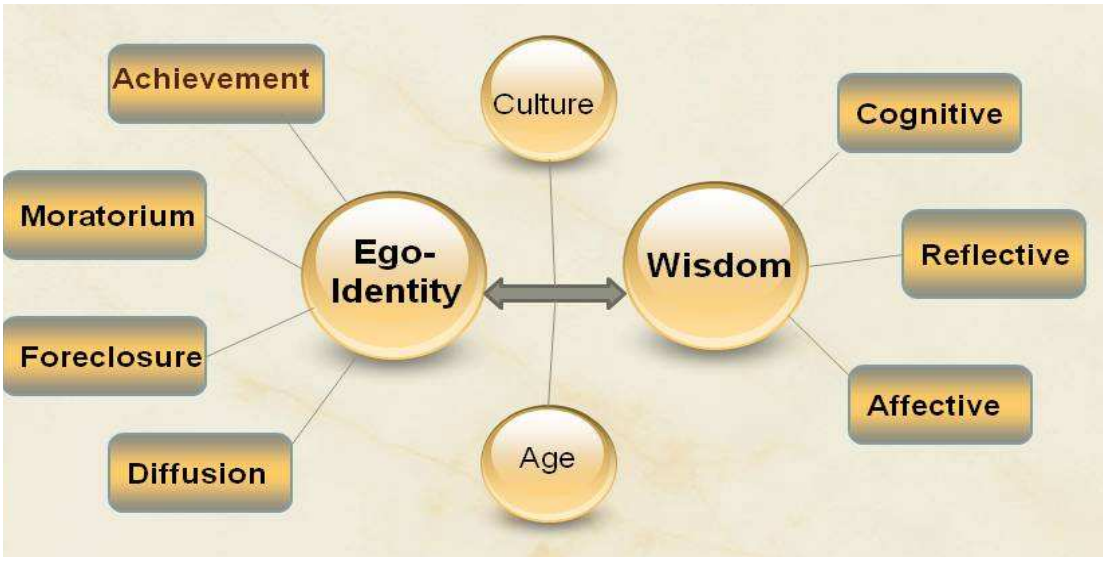

Figure 1. Conceptual Framework for the Study

Participants and Procedures

After obtaining IRB approval (Appendix A), Korean and American undergraduate students (N=358) ranging in age from 18 to 22 years old, participated in the study. Among them, 133 Koreans who attend a university in a metropolitan city area and 225 American students who attend a university in a Midwestern college town, took part in the study (refer to Table 2). Most American participants majored in Education, while Korean participants' had more diverse majors from education to engineering. The average age of Korean adolescents was 20.42 (SD=1.2 years), while among American adolescents, the average age was 20.32 (SD=1.02 years). Korean and American adolescents who participated in this study were predominantly female by 80% and 73%, respectively (refer to the Table 2). Among American subjects, Native Americans (n=24, 11%), Caucasians (n=184, 82%), African Americans (n=12, 5%), Hispanics (n=3, 1.5%), and Asians/Pacific Islanders (n=2, .9%) participated in the study. Thus, Caucasians were the dominant population among American late adolescents.

Table 2

Demographic Information

		Korean (n=133)		American (n=225)	
		Frequency	%	Frequency	%
Age	18	6	4%	11	5%
	19	29	22%	46	20%
	20	30	23%	62	28%
	21	39	29%	70	31%
	22	29	22%	36	16%
Gender	Female	106	80%	165	73%
	Male	27	20%	59	26%
	Other			1	.4%
Total		133	100%	225	100%

Instrumentation

Each participant was asked to complete a short demographic survey. Information requested included age, gender, and ethnicity, as well as the *Three Dimensional Wisdom Scale* and the *Revised Version of the Extended Objective Measure of Ego-Identity Status*.

Three Dimensional Wisdom Scale

Wisdom was assessed using the *Three Dimensional Wisdom Scale (3D-WS)* (Ardelt, 2003*). Three Dimensional Wisdom Scale* has 39 items designed with a Likert scale (ranging from 1 to 5). The scale includes cognitive, reflective, and affective items (e.g., Ignorance is bliss). Although scholars agree on the multifaceted nature of wisdom,

most definitions of wisdom consist of the cognitive and reflective dimensions of wisdom, but the affective dimension has been neglected (Ardelt, 2003). Based on Clayton and Birren's (1980) definition of wisdom, Ardelt developed the *Three Dimensional Wisdom Scale*. 3D-WS is designed based on the combination of implicit theories of wisdom and explicit theories derived from the Eastern wisdom tradition (Ardelt, 2003).

Cognitive Dimension

The cognitive dimension has 14 items that measure an individual's capability to understand life. Cognitive dimension items include "people's ability and willingness to understand a situation or phenomenon thoroughly, as well as people's knowledge of the ambiguity of human nature and of life in general" (Ardelt, 2003, p. 278).

Reflective Dimension

The reflective dimension of wisdom has 12 items that include meta-cognition, a deeper understanding of life and the world, which makes it possible to perceive reality without deformation. Items of the reflective dimension of wisdom assess the degree to which subjectivity and projection are overcome, by examining phenomenon from different perspectives, and how much adolescents can avoid blaming other situations or people (Ardelt).

Affective Dimension

The affective dimension of wisdom has 13 items that assess the presence of positive emotions and behaviors toward others. Empathy and compassion are desirable, but indifference or negative emotions are not desirable behaviors toward others (Ardelt, 2003).

Validity and Reliability

Ardelt (2003) developed her scale and tested the construct, predictive, and discriminant validities as well as its internal and test-retest reliabilities with a sample of 180 adults (age over 52). The results turned out to be acceptable. Because the 3D-WS has only been recently developed, it has not been used to measure wisdom in adolescents. However, since the measurement combines cross-cultural concepts of wisdom it was found suitable for this study.

The content and convergent validity are also satisfactory. This analyses have shown good internal reliability; all cognitive, reflective, and affective dimensions showed Cronbach's alpha scores from .71 to .85 (Ardelt). Confirmatory factor analysis has shown that the factor loading of the cognitive, reflective, and affective dimensions are statistically significant ranging from .50 to .84. Content validity was tested and determined to be satisfactory (Ardelt). Predictive validity showed that overall 3D-WS is significantly and positively correlated with mastery (r=.63), general well-being (r=.45), purpose in life (r=.61), and subjective health (r=.30). Discriminant validity provided evidence of independency. The 3D-WS was not related to the respondents' marital and retirement status, gender, race, income, and social desirability index. It is significantly and positively related to education (r=.21) and the longest-held occupation (r=.19). Test-retest reliability showed that the factor loadings of the 3D-WS are not statistically different between time 1 and time 2. Thus, the results showed that 3D-WS is relatively stable over a short period of time (Ardelt, 2003).

Ego-Identity Status Measurement

Ego-identity statuses were determined by the *Revised Version of the Extended Objective Measure of Ego-Identity Status (RV-EOM-EIS)* (Bennion & Adams, 1986). The Original *RV-EOM-EIS* had 64 Likert scale items (ranging from A-F), included ideological and interpersonal domains and was tested on a sample of 106 college students majoring in psychology and human development.

The Structure of the Scale

Marcia's (1966) four identity statuses, identity achievement, moratorium, foreclosure, and diffusion, are results from interviews scored by raters. Bennion and Adams (1986) revised *the Extended Objective Measure of Ego-Identity Status* (RV-EOM-EIS). An extended version of OM-EIS (EOM-EIS) was designed to measure ego-identity status in ideological domains (occupation, politics, religion, and philosophical lifestyle), interpersonal domains (friendship, dating, sex roles, and recreation). Eight domains are measured by eight items (e.g. I haven't chosen the occupation I really want to get into, and I'm just working at whatever is available until something better comes along). Two items for each identity were created based on Marcia's work (1966).

Internal Consistency and Factorial Validity

Analyses showed a good internal consistency with all items of Cronbach's alpha, and showed over .60, except for interpersonal moratorium, which was .58. Discriminant validity provided evidence of independence (Crocker & Algina, 1986). Both the ideological and interpersonal identity status subscales showed that identity achievement is either uncorrelated or negatively correlated with other subscales, while identity diffusion is consistently negatively correlated with identity achievement, and positively

correlated with moratorium scores (Bennion & Adams, 1986). This study showed that the diffusion and moratorium measures are distinct but overlapping constructs (Bennion & Adams, 1986). Finally, pure factor structures were observed for the identity achievement and the foreclosure subscales, while diffusion and moratorium were found to load on a common factor (Adams, Shea, & Fitch, 1979). However, the positive relationship between diffusion and moratorium measure could have been influenced by cultural factors. Thus, despite the fact that several studies have suggested that these two statutes are a common factor, this study separated and used the four identity statuses in order to measure the identity status of ate adolescents.

Procedures

The study was conducted online during a one month data collection period. After obtaining IRB approval (Appendix A), the flyers were sent out to instructors using a snowball sampling technique to recruit students from both Korean and American universities. The participants were recruited through those instructors who were willing to help with the data collection. Then, the participants were informed about the duration, confidentiality, voluntary nature, and procedure of the survey (Appendix B). Once they agreed to participate in the study, they had to click on the “agree to participate” button (Appendix B). The instruments were given to the university students (age ranging 18-22) during one administration, which took about 30 minutes to complete. They completed the self-assessment survey about their values and opinions, as well as a demographic questionnaire. All instruments were translated into Korean and reverse translated for accuracy to the English forms.

Data Analysis

The following statistical procedures were conducted to respond to the research questions:

(1) Two separate 2 X 5 factorial MANOVAs to investigate the main effects of culture and age variables and their interaction effects on four ego-identity status and three dimensions of wisdom in two countries;

(2) Mean differences between Korean and American undergraduate adolescents' ego-identity status and wisdom dimension scores; and

(3) A canonical correlation analysis among ego-identity statuses and wisdom dimensions.

Chapter Summary

This chapter provided a description of the research design and methodology. Korean and American undergraduate students (N=358) took part in the study using an online survey of wisdom dimensions and ego-identity statuses with two instruments which have satisfactory validity and reliability.

CHAPTER IV

FINDINGS

In this Chapter, the results of the study are presented. The descriptive statistics are provided to analyze statistical assumptions followed by results according to the research questions that guided the study.

1. How do culture and age influence wisdom dimensions and ego-identity statuses among late adolescents?

2. What are the mean differences in wisdom dimensions and the ego-identity statuses between Korean and American late adolescents?

3. What is the relationship between wisdom dimensions (cognitive, reflective, and affective) and ego-identity status (identity achievement, moratorium, identity diffusion, and foreclosure)?

Descriptive Statistics

Two sets of variables were utilized in order to study the relationship between ego-identity and wisdom, and the age and culture differences and influences among Korean and American college adolescent groups. The scores of four ego-identity statuses and the three dimensions of wisdom were analyzed to test the assumptions of the study. The reliability of the 3-D wisdom scale and correlations between OM-EIS and other variables were also analyzed in order to assess the validity of the measurements.

Test of Assumptions

Outliers, range, normality, and linearity were tested to evaluate the assumption of normality and linearity.

Outliers

Each of the four ego-identity statuses and three wisdom dimensions were examined for outliers with z-scores. The z-scores which fell outside of the range from +/- 3.50 can be considered as outliers when sample size is large (Stevens, 2002). In this study, no score was outside of +/- 3.50 range, so no case was found to be outlier. No data was missing. Hence all 358 cases were analyzed and interpreted.

Range.

Descriptive statistics were utilized to evaluate the required assumptions, and Table 4 shows the descriptive statistics for all the variables of the study. Means and standard deviations were assessed to determine if the data are within the designated range (refer to Appendix C). If the descriptive statistics do not guarantee sound measurements, there can be potential problems with the data. In this study the mean, minimum and maximum scores of the sample fell within the expected range (refer to the Table 3), which reveals that the scores can be considered representative for the general population.

Normality.

The skewness and kurtosis statistics support the assumption of normal distribution. The skewness statistics in this study show that the skewness is not extreme, but slight, that is within the +/- 1.00 range. This indicates a symmetrical distribution. The examination of the kurtosis statistics for the variables revealed no platykurtic distributions (refer to Table 3 and Appendix C). Since platykurtosis attenuates the power

of both ANOVA and MANOVA, no platykurtic distributions displayed reasonably balanced distributions.

All variables had reasonably balanced distributions (refer to Table 3 and Appendix C). Thus, the descriptive statistics show that the measurements are sound. There are no missing data and no univariate or multivariate within-cell outliers. The results of the evaluation of assumptions of normality were satisfactory.

Table 3

Descriptive Statistics

	Mean	*SD*	Min.	Max.	Var.	Range	Skewness	Kurtosis
Achievement	13.82	2.34	7.00	19.00	5.49	4-20	-.027	-.421
Moratorium	11.64	2.64	5.00	20.00	6.98	4-20	-.016	-.188
Foreclosure	10.13	3.12	4.00	18.00	9.71	4-20	.018	-.848
Diffusion	10.67	2.76	4.00	17.00	7.60	4-20	-.059	-.548
Cognitive	49.04	7.21	28.00	70.00	51.93	14-70	-.166	.189
Reflective	40.00	5.70	24.00	57.00	32.45	12-60	.115	-.136
Affective	42.46	5.86	25.00	62.00	34.33	13-65	.096	.327
Wisdom	131.51	14.0	95.00	180.00	195.99	39-195	.053	.113

Instruments

Internal consistency of 3D-wisdom scale and correlation between variables were tested to evaluate the reliabilities and validities of instruments.

Reliability Tests of the 3-D Wisdom Scale

The 39 items of the 3-D wisdom scale were scored with a Likert scale (1 to 5). Cronbach's alpha reliability tests were conducted to evaluate the internal consistency of

the 3-D wisdom scale. All cognitive, reflective, and affective dimensions have Cronbach's alpha scores from .70 to .76 for American data and .66 to .81 for Korean data (refer to Table 4), which is slightly lower than Ardelt's reliability test (.71 to .85; refer to Chapter 3). Cronbach's alpha reliability coefficient ranges between 0 and 1, and the closer the Cronbach's alpha is toward 1 the greater the internal consistency of the scale. George and Mallery (2003) suggest that Cronbach's alphas over .9 indicate excellent, over .8 good, over .7 acceptable, .6 shows questionable, over .5 poor, and less than .5 unacceptable reliabilities. Thus, the results show that the reliability of the 3-D wisdom scale are acceptable and have good internal consistency in this Korean and American adolescent sample.

Table 4.

Internal Consistency (Cronbach's Alpha)

	Cognitive	Reflective	Affective	Wisdom (3D)
Korean	.81	.66	.70	.81
American	.76	.73	.70	.85
Number of items	14	12	13	39

Bivariate Correlations

For this study, only 16 items of the ideological domains were chosen from the *Revised Version of the Extended Objective Measure of Ego-Identity Status (RV-EOM-EIS*) (Bennion & Adams, 1986) to assess the four ego-identity statuses of achievement, moratorium, foreclosure, and diffusion, using a Likert-like scale ranging from 1 (least like me) to 5 (most like me). This study showed a significant correlation between

moratorium and diffusion (r_{md}=.34, p<.01) among American data, but not among Korean data (r_{md}=.11, p>.05) (refer to Tables 5 and 6). This is important because even though there have been consistent results that suggest that moratorium and diffusion are an overlapping construct or a common factor (Bennion & Adams, 1986), the results here may indicate the influence of cultural effects. The bivariate test also showed that identity achievement is negatively related to diffusion among Korean adolescents (r_{ad}=.40, p<.01). This is similar to previous studies that have used the *RV-EOM-EIS* (Bennion & Adams, 1986). Among the American data, the positive relationship between diffusion and moratorium and the negative relationship between achievement and diffusion, have been shown consistently (Bennion & Adams, 1986). Uniquely, in this study, the American data also shows the positive relationship between diffusion and foreclosure (r_{df}=.35, p<.01).

Because of the nature of the scale and the theory, measuring internal consistency and analyzing factors with this scale were not easy. For example, some subjects may display both moratorium and achievement, or diffusion and moratorium. Some adolescents may display three different identity statuses (Archer, 1982). This is possible because some adolescents show different identity statuses depending upon their ideological domains. A subject, who revealed achieved identity in the occupational domain, may not show identity achievement in the religious domain. A Korean study also supports this phenomenon. Korean undergraduate students with achieved identity are still experiencing identity crises (A. Park, 1994). Thus, the internal consistency was not tested for *RV-EOM-EIS* in this study.

The test of the reliability of the 3-D wisdom scale showed similar test results to Ardelt's test, while correlation tests of OM-EIS has shown some similarities and some differences

with previous studies. These similar results may be due to the cultural effect which is discussed in the research question 3. The bivariate correlations between ego-identity statuses and wisdom dimensions are also discussed in the research question 3.

Table 5

Bivariate Correlation Matrices among Variables in Korean Adolescent Sample

	Achievement	Moratorium	Foreclosure	Diffusion	Cognitive	Reflective
Moratorium	.048					
Foreclosure	-.110	-.119				
Diffusion	-.403(**)	.111	.159			
Cognitive	.137	.108	-.474(**)	-.234(**)		
Reflective	.192(*)	-.029	-.173(*)	-.326(**)	.267(**)	
Affective	.049	-.081	-.088	-.229(**)	.120	.405(**)

Note. ** p< 0.01 (2-tailed). * p< 0.05 (2-tailed). N=133

Table 6

Bivariate Correlation Matrices among Variables in American Adolescent Sample

	Achievement	Moratorium	Foreclosure	Diffusion	Cognitive	Reflective
Moratorium	-.035					
Foreclosure	-.027	.095				
Diffusion	-.029	.342(**)	.351(**)			
Cognitive	.052	-.119	-.488(**)	-.301(**)		
Reflective	.191(**)	-.168(*)	-.332(**)	-.236(**)	.379(**)	
Affective	.167(*)	-.097	-.301(**)	-.274(**)	.410(**)	.534(**)

Note. ** p< 0.01 (2-tailed). * p< 0.05 (2-tailed). N=225

Research Question 1. How do culture and age influence wisdom dimensions and ego-identity statuses among late adolescents?

Two separate 2 x 5 factorial multivariate analyses of variance were performed on four ego-identity statuses (achievement, moratorium, foreclosure, and diffusion) and three dimensions of wisdom (cognitive, reflective, and affective). Independent variables were culture (Korean and American) and age (5 groups from 18 to 22). Table 7 illustrates main and interaction effects of age and culture.

Assumptions

Even with unequal sample sizes, the discrepancy in sample sizes does not invalidate the use of MANOVA, due to the small difference in variance (refer to Table 3) and two-tailed tests (Tabachnick & Fidell, 2007). The very sensitive Box's M test for homogeneity of dispersion matrices produces F (90, 7594) = 1.12, $p > .05$ for ego-identity variables and F (54, 8451) = 1.31, $p > .05$ for wisdom variables which confirms the homogeneity of variance-covariance matrices. The log-determinant of the pooled within-cells correlation matrix was found to be 7.44 for ego-identity and 10.33 for wisdom. Thus, these results were sufficiently different from zero, thus multicollinearity was not judged to be a problem. Hence, the results of the evaluation of assumptions of normality, homogeneity of variance-covariance matrices, linearity, and multicollinearity, were satisfactory.

Age Effects

The interaction effect of age by culture was not statistically significant (refer to Table 7).

Adolescents, age ranging from 18 to 22 years old are divided into five groups (18, 19, 20, 21, and 22) to investigate the age effect on identity statuses and wisdom dimensions. The multivariate main effect of age in ego-identity did not reveal statistical significance, while the multivariate main effect of age in wisdom showed statistical significance (F (12, 1034) = 2.15; p<.05). The univariate analysis was conducted as a follow-up in order to inspect detailed effects. The reflective [F (4, 348) =2.76; p<.05] and affective [F (4, 348) =2.42; p<.05] dimensions of wisdom showed statistical significance (refer to Table 6). These results show that wisdom has an age effect, but the reflective and affective dimensions are better ways of understanding the age effect than is the cognitive dimension of wisdom among this adolescent group.

Tukey's Honestly Significance Difference (HSD) was conducted as a post-hoc analysis to examine which age groups show statistically significant differences in the wisdom dimensions. Because this study is exploratory, Tukey's post hoc is more appropriate than the unnecessarily conservative Scheffe post hoc test (Keppel & Wickens, 2004). Thus, Tukey's post hoc was utilized to test whether differences between any two pairs of means of age groups are significant. Univariate analysis shows that cognitive dimension does not have the significant age effect among the age groups (refer to Table 7). Ages between 21 and 22 years old have a significant difference in reflective dimension of wisdom (mean difference = 2.075; p<.05), while ages between 18 and 20 (mean difference = 4.815; p<.05), and 18 and 21 (mean difference = 4.293; p<.05) have significant mean differences in affective dimensions of wisdom. Thus, this shows that wisdom dimension scores displayed differently depending on age group. But only the reflective and affective dimensions of wisdom indicate significant age effects. Especially,

ages between 21 to 22 years old show significant reflective dimension of mean difference. Moreover, ages between 18 and 20 years old and between 18 to 21 years old adolescents show significant mean difference in affective dimension of wisdom.

Cultural Effects

The factorial multivariate analysis of variance was conducted to determine the main effect of culture on both ego-identity and wisdom among Korean and American adolescents. The multivariate main effect of culture on both ego-identity and wisdom was confirmed as significant. The multivariate main effect of culture on ego-identity status showed statistical significance [$F\,(4, 345) = 14.30$; $p = .000$]. The univariate analyses were conducted as a follow-up, in order to inspect detailed effects. The univariate analysis of variance showed that moratorium [F (1, 348) = 41.58; p<.01], foreclosure [F (1, 348) = 9.07; p<.01], and diffusion [F (1, 348) = 6.98; p<.01] have a significant cultural effect, while achievement did not show a significant cultural effect (refer to Table 7).

The multivariate analysis was conducted to test the main effect of culture on wisdom and it revealed statistical significance [F (3, 346) = 16.93; $p = .000$]. The univariate analyses were conducted as a follow up test, in order to examine detailed effects. The univariate analyses of variance showed that all dimensions of wisdom have significant culture effects: cognitive [F(1, 348) = 10.70; p<.01], reflective [F (1, 348) = 53.92; p<.01], and affective [F (1, 348) = 8.90; p<.01]. The canonical correlation analysis shows the detailed cultural effects in research question 3.

Table 7

Age and Culture Main and Interaction Effects

	Ego-Identity		Wisdom	
Age	Achievement	ns	Cognitive	ns
	Moratorium	ns	Reflective	**F=2.76***
	Foreclosure	ns	Affective	**F=2.42***
	Diffusion	ns		
Hotelling's T	.058 (ns)		.074; F = 2.15; p<.05	
Culture	Achievement	ns	Cognitive	**F=10.70****
	Moratorium	**F=41.58****	Reflective	**F=53.92****
	Foreclosure	**F=9.07****	Affective	**F=8.90****
	Diffusion	**F=6.98****		
Hotelling's T	.17; F = 14.30; p = .000		.15; F = 16.93; p = .000	
Age X Culture	.016 (ns)		.0036 (ns)	

Note. ** p< 0.01 (2-tailed). * p< 0.05 (2-tailed). N=358

Research Question 2. What are the mean differences in wisdom dimensions and the ego-identity statuses between Korean and American adolescents?

Table 8 shows the mean differences for ego-identity statuses and wisdom dimensions. The t-test shows the statistically significant mean differences between two cultures.

Ego-Identity Statuses

This study utilized ego-identity statuses using the *Revised Version of the Extended Objective Measure of Ego-Identity Status (RV-EOM-EIS) (Bennion & Adams, 1986).*

Only ideological domains (philosophy, occupational, religious, and political) were utilized to assess four ego-identity statuses—achievement, moratorium, foreclosure, and diffusion—using a Likert scale ranging from 1 (least like me) to 5 (most like me). An item in each the four ideological domains of the four identity statuses (4 x 4 = 16 items) was selected to characterize the identity status for each individual in the study. If an individual's score is higher than 12 on the scale for a certain identity status, it suggests that the particular individual has revealed this status. If an adolescent scores less than 12 points, he or she is less likely to possess that identity status. It is possible that an individual reveals more than one identity status (refer to Figure 2).

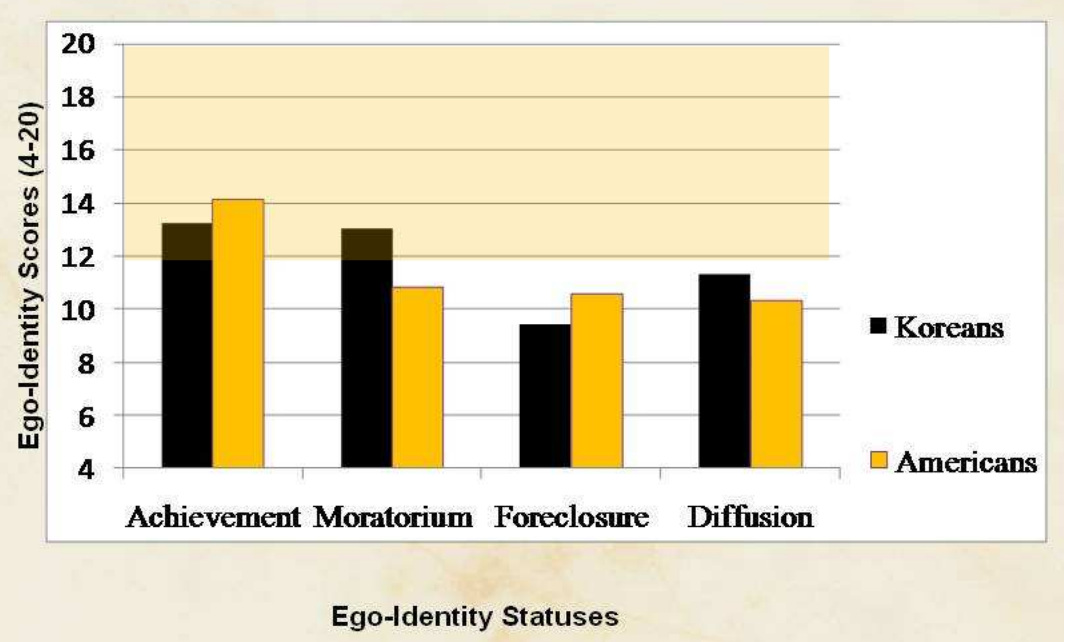

Figure 2 Ego-identity Statuses Scores among Korean and American Adolescents.

In this study, average American adolescents scored higher on achievement ($\bar{x}$=14.15>12; *SD* = 2.41) and scored lower on moratorium, foreclosure, and diffusion. This means that average American adolescents have resolved identity crises and achieved ego-identity. On the contrary, average Korean adolescents scored higher on both

moratorium ($\bar{x}$=13.05>12; *SD* = 2.09) and achievement ($\bar{x}$=13.26>12; *SD* = 2.13). This could mean that average Korean adolescents reveal either achieved identity or moratorium, or both achievement and moratorium identity at the same time. American adolescents scored higher on achievement ($\bar{x}$=14.15) and foreclosure ($\bar{x}$=10.56), while Korean adolescents scored higher on moratorium ($\bar{x}$=13.05) and diffusion ($\bar{x}$=11.29) (refer to Table 8).

Table 8

Mean Differences for Ego-Identity Statuses and Wisdom Dimensions

	Korean (N=133)		American (N=225)		
	Mean	SD	Mean	SD	t-test
Ego-Identity					
Achievement	13.26	2.13	**14.15**	2.41	-3.61**
Moratorium	**13.05**	2.09	10.81	2.60	8.49**
Foreclosure	9.41	2.98	**10.56**	3.12	-3.44**
Diffusion	**11.29**	2.49	10.31	2.84	3.40**
Wisdom	129.76	12.44	132.54	14.78	-1.82
Cognitive	**50.75**	7.18	48.03	7.04	3.49**
Reflective	37.44	4.75	**41.51**	5.68	-6.95**
Affective	41.56	5.59	**42.99**	5.96	-2.28*

Note. ** p< 0.01 (2-tailed). * p< 0.05 (2-tailed).

Wisdom Dimensions

In this study, the mean scores of wisdom dimensions of both Korean and American adolescents revealed that average adolescents in both countries scored above

average wisdom dimension scores (refer to Table 8). The mean scores of the cognitive dimension of wisdom are especially above average in both countries; Korea (50.75>42: cut-off points) and America (48.03>42: cut-off points). This confirms that average Korean and American late adolescents possess the cognitive dimension of wisdom.

The results show that average Korean and American adolescents scored above cut-off points on the reflective (cut-off point: 36) and affective (cut-off point: 39) dimensions of wisdom by 37.44 (Korean), 41.51 (American), and by 41.56 (Korean), 42.99 (American), respectively (refer to Table 8 & Figure 3). The mean difference of the reflective dimension of wisdom between two cultures shows the largest gap. The mean differences for wisdom dimensions between Korean and American adolescents reveal that Korean adolescents scored higher on the cognitive dimension ($\bar{x}$=50.75) of wisdom, while American adolescents scored higher on the reflective ($\bar{x}$=41.51) and affective ($\bar{x}$=42.99) dimensions of wisdom (refer to Table 8 & Figure 3).

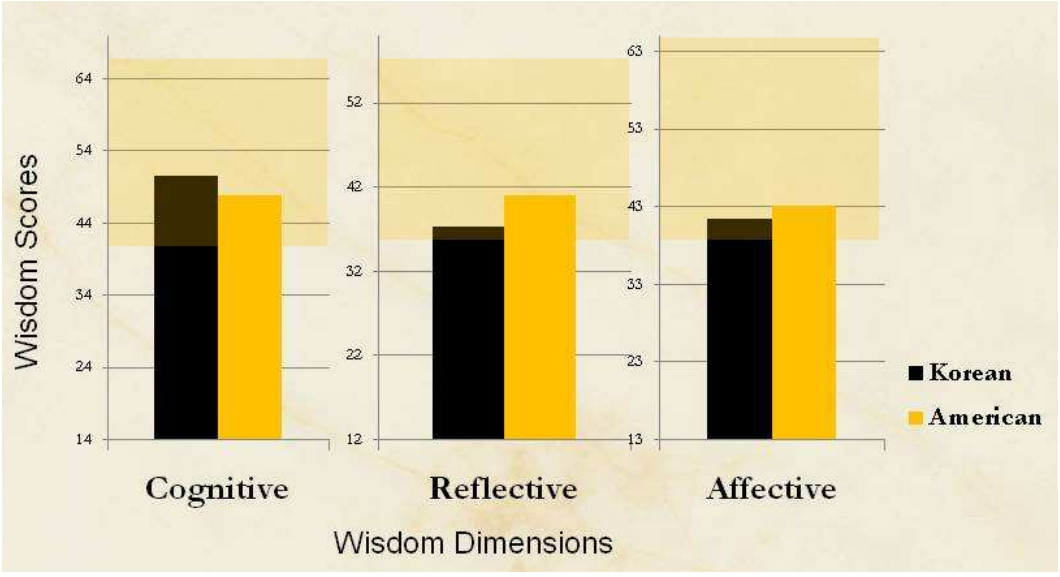

Figure 3 Wisdom Dimensions Scores among Korean and American Adolescents

Research Question 3. What is the relationship between wisdom dimensions (cognitive, reflective, and affective) and ego-identity status (identity achievement, moratorium, identity diffusion, and foreclosure)?

Canonical correlation analysis was performed to assess the pattern of relationship between the sets of wisdom dimensions and the ego-identity statuses as each set consists of more than one variable (Thomson, 1984). For this study, the canonical analysis yielded three functions initially but showed that only the first function is statistically significant for both Korean and American adolescent data (p=.000). Thus, only the first function for each country was interpreted in the study. Table 9 displays the canonical correlation between ego-identity statuses and wisdom dimensions.

Korean Adolescents' Identity and Wisdom

The first canonical correlation was .529, representing 28% overlapping variance for the first pair of canonical variates of Korean adolescent data with the Wilks lambda = .666 [F (12, 333.66) = 4.63; p = .000]. With a cutoff correlation of .3 (Tabachnick & Fidell, 2007), the examination of loadings suggests that the first canonical correlation shows a negative correlation between foreclosure, diffusion, and all three wisdom dimensions. Taken as a pair, these variates suggest that a combination of low foreclosure (r_C = -.877) and diffusion scores (r_C = -.60) may be associated with high wisdom dimension scores [cognitive (r_C =.94), reflective (r_C =.56), and affective (r_C =.32)], and vice versa. On the other hand, a high achievement score (r_C =.335) relates to all high wisdom dimension scores [cognitive (r_C =.94), reflective (r_C =.56), and affective (r_C =.32)]. In contrast, moratorium (r_C =.14) does not correlate to any wisdom dimensions.

American Adolescents' Identity and Wisdom

The first canonical correlations of American data showed Wilks Lambda = .659 [$F(12, 650) = 8.94$; p=.000]. The first canonical correlation was .556, representing 31% overlapping variance for the first pair of canonical variates of American adolescent data.

Table 9

Canonical Correlation between Identity Statuses and Wisdom Dimensions

	Korean (N=133)		American (N=225)	
	Loading	Coefficient	Loading	Coefficient
Ego-Identity				
Achievement	**.335**	.056	.240	.206
Moratorium	.144	.099	-.286	-.102
Foreclosure	**-.877**	-.785	**-.921**	-.803
Diffusion	**-.600**	-.463	**-.617**	-.295
Wisdom				
Cognitive	**.944**	.855	**.906**	.699
Reflective	**.557**	.287	**.707**	.339
Affective	**.322**	.103	**.660**	.193
(*Rc*) % of variance	(.529) 28%		(.556) 31%	
Wilks Lambda	.67; $F(12, 374) = 4.62$; p =.000		.66; $F(12, 650)$=8.94; p =.000	

With a cutoff correlation of .3, the examination of loadings suggests that the first canonical correlation shows a negative correlation between foreclosure, diffusion, and all three wisdom dimensions. Taken as a pair, these variates suggest that a combination of

low foreclosure (r_c = -.92) and diffusion scores (r_c = -.62) are associated with high wisdom dimension scores [cognitive (r_c =.91), reflective (r_c =.71), and affective (r_c =.66)], and vice versa. Interestingly, for American adolescents, both identity achievement (r_c = .21) and moratorium (r_c = -.10) are not related to wisdom dimensions.

In order to examine further why Korean and American data show a different relationship between achievement, moratorium and wisdom dimensions, bivariate correlations (refer to Tables 5 & 6) were assessed. The bivariate correlation analyses between Korean moratorium data and other variables showed no correlation, while American moratorium showed a low positive correlation with diffusion (r_{md}= .34, p<.01; refer to Table 8 & 9), and a slight negative correlation with the reflective dimension of wisdom (r_{mr}= .17, p<.05).

The bivariate correlation analysis shows that for both Korean and American adolescents, identity achievement is related to the reflective dimension (r_{ar}= . 192, p<.05, Korean; r_{ar}= . 191, p<.01American). The affective dimension and identity of achievement among American adolescents (r_{aa}= . 167, p<.05) are slightly correlated. Bivariate correlation analysis shows the correlation between the identity achievement of American adolescents to have a significant relation to the reflective and affective dimensions of wisdom, while canonical correlations did not show significant correlations within the sets of variables.

Chapter Summary

This chapter presented the results of the data for the study. The chapter started with the overview of the descriptive statistics in order to provide the evidence of the sound measurements which were used for this study and to evaluate overarching

statistical assumptions of the study. Then, the responses to the three research questions were followed.

Research question 1 was addressed using 2 x 5 factorial MANOVA to examine the culture and age effects, and their interaction effect. Multivariate analysis revealed that there is significant age effect on wisdom, while there is no multivariate age effect on ego-identity. However, univariate analyses showed that only reflective and affective dimensions of wisdom have the significant age effects. A Tukey's HSD post hoc analysis demonstrate that age between 21 to 22 years old in reflective, age between 18 and 20 years old, and between 18 to 21 years old adolescents in affective show significant mean differences of wisdom dimensions. There are significant culture effects.

Research question 2 was addressed by examining the mean differences of ego-identity statuses and wisdom dimensions. The findings showed that there was a significant mean difference between Korean and American data. Average American adolescents revealed the identity achievement status, while average Korean adolescents showed both identity achievement and moratorium statuses. Average Korean adolescents score higher on cognitive dimension of wisdom, while American adolescents scored higher on reflective and affective dimensions of wisdom. Both Korean and American average adolescents considered to have wise qualities.

Research questions 3 was addressed to examine the relationship of the two sets of variables: wisdom dimensions and ego-identity statuses using canonical correlation analysis. Both countries revealed that foreclosure, diffusion negatively relate to all dimensions of wisdom. Korean data showed a positive relation between achievement and

all dimensions of wisdom while American achievement, moratorium and Korean moratorium did now show association with wisdom.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

The intention of this study was to discover how culture and age influence identity and wisdom as well as to explore the relationship between ego-identity statuses and wisdom dimensions, and the role of wisdom as developmental facet during adolescence. The results of this study suggest the existence of several unknown facts and confirm the results of previous studies on ego-identity status and wisdom development. This chapter first discusses the findings in terms of age and cultural differences on wisdom and ego-identity and then concludes by providing comments about limitations, further research suggestions, and theoretical implications.

Summary of Findings

The study revealed that there is no significant age effect on ego-identity status, but on wisdom dimensions. Univariate analyses show that the reflective and affective dimensions show a significant age effect on wisdom. Subjects between two countries revealed the significant cultural effects for both ego-identity and wisdom dimensions. The results demonstrate that there are statistically significant mean differences between Korean and American adolescents' ego-identity status and wisdom dimension scores. The average American adolescent shows identity achievement, while the average Korean adolescents show identity achievement and moratorium.

With a correlation of .3 considered significant, the examination of the canonical loadings suggests that the first canonical correlation in both Korean and American data indicates a negative correlation between foreclosure, diffusion, and all three wisdom dimensions, while there is a positive correlation between identity achievement and all wisdom dimensions in Korean adolescents. The American data captures no correlation between moratorium, achievement and all wisdom dimensions.

Conclusion

Uniquely, this study investigated the relationship between ego-identity statuses and wisdom dimensions, and how culture and age relate to identity and wisdom development in adolescents. The conclusions are:

1) Age contributes to reflective and affective wisdom dimensions, but not to the cognitive wisdom dimension.

2) Cultural effects are significant for both wisdom and identity development. The average American adolescents showed a more mature ego-identity development than did the average Korean adolescents. Both Korean and American adolescents show wisdom. Korean adolescents showed more cognitive dimension, while American adolescents showed more reflective and affective dimensions of wisdom.

3) Identity achievement predicts wisdom among Korean adolescents, whereas identity achievement is not associated with wisdom among American adolescents. An absence of foreclosure and diffusion can be a helpful way of understanding wisdom for the Korean and American subjects.

Even if it seems that American adolescents are advanced on identity and wisdom development, their identity achievement was not related to wisdom. This may be related

to the function of diffusion and moratorium among American adolescents. Thus, the quality of identity development, and the relationship with wisdom in both Korean and American subjects, needs to be investigated further.

Age Differences

Age as a predictor in wisdom has been controversial. Historically, wisdom has been understood as a quality that develops with age (Ardelt, 2003; Richardson & Pasupathi, 2005). Some scholars have argued that wisdom is more likely to develop during the adult years (Baltes et al., 1992; Clayton & Birren, 1980; Sternberg, 1986), while Jordan (2005) argues that it only loosely relates to wisdom or is even lost over time (Meacham, 1990). However, many have argued that adolescence can be the seed period for wisdom development (Pasupathi et al., 2001; Piaget & Inhelder, 1973; Richardson & Pasupathi, 2005).

Unlike these studies, the present study shows that particular dimensions of wisdom have a significant relationship with age. Rather than making definite statements that wisdom develops with age, the results of this study suggest that there is a need to distinguish specific dimensions of wisdom when explaining age effects. The findings of this study suggest that the reflective and affective dimensions of wisdom show significant age differences, but the cognitive dimension of wisdom in this age group does not have an age effect. This could mean that this particular age group (18 to 22 years old) scores similarly on the cognitive dimension of wisdom. This could be because the late adolescents have already developed cognitive abilities such as perspective taking, reasoning, and logical thinking skills as well as factual and practical knowledge about how things work in life. Thus, this study confirms that younger (18 years old)

individuals' cognitive dimension of wisdom is not different from that of older (22 years old) individuals' cognitive abilities. A different study found a significant age contribution to wisdom-related performance in 23 to 26 year old individuals (Pasupathi et al., 2001). Even though the focus of this and the present study are different, they both reveal some idea about age contributions to wisdom development.

This study infers that there is no age contribution to the cognitive wisdom dimension but a significant age contribution to the reflective and affective ones. Among the age group (18-22 years old), individuals between 21 to 22 years had a significant mean difference in the reflective dimension of wisdom. Adolescents between 18 and 20, and between 18 and 21, revealed a significant mean difference in the affective dimension of wisdom. It is interesting to note that the oldest group (22 years old; n=85) did not show significant age differences with other age groups, while age groups among 18 to 21 revealed mean differences on the wisdom dimensions. It is unclear why this part of the study revealed such results. Thus, further study is necessary in order to better understand the age contribution among these groups, as well as comparisons with early, mid-adolescent, and adult groups.

Cultural Differences

This study discovered that there is a significant cultural difference between Korean and American undergraduate adolescents. The analysis shows significant cultural influences for both, with respect to wisdom and ego-identity development. Mean differences between both samples suggest cultural effects. The canonical correlation between the wisdom dimensions and ego-identity also indicate cultural differences, by revealing the unique relationship between ego-identity and wisdom dimensions. This

section discusses the cultural differences in wisdom and identity between the two countries.

Ego-Identity among Korean and American Adolescents

This study shows that the average American adolescent (age 18-22) has achieved an ego-identity, while the average Korean adolescent (age 18-22) is still in the process of seeking their identity, and/ or has achieved identity. According to Erikson (1968), identity crisis occurs in early adolescence, and is usually resolved by the age 15 to 18. However, other scholars argue that identity formation occurs much later than Erikson originally assumed (Meilman, 1979; Waterman, 1982). According to Meilman (1979), only 20% of the 18-year-olds achieve a stable identity. A Korean identity study revealed that Korean adolescent identity development is much slower compared to that of Western adolescents (H. Kim, 1989). Kim (1989), for example, argued that only 30% of undergraduate sophomores (19 or 20 years old) have achieved identity status. He also argued that 17% of undergraduate students show a more diffused status, 19% of them identity foreclosure, and 25% moratorium status. Even though Kim's and Meilman's studies provide no direct insights into cultural differences with respect to identity development, they seem to support the conclusion that cross-cultural difference in the development of identity statuses do potentially exist.

Several Korean studies (and the present study) suggest that Korean adolescents may have a delayed identity development. Song (1993) explained this phenomenon in terms of parenting styles. She explained that when Korean parents encourage and accept their children's autonomy and encourage their independence, as Western parents do, adolescents are more likely to achieve identity (S. Song, 1993). Another study speculates

that since Korean adolescents do not have appropriate opportunities for interacting with peers during the middle and high school years due to their excessive educational pursuits, they may not have opportunities to explore their ego-identities, resolve identity crises, and/or develop healthy ego-identities (I. Kim & Jang, 1992).

In sum, the study illustrates that the average American undergraduate adolescent has reached an advanced stage of identity development, while some Korean adolescents may still be searching for ego-identity. The cultural, educational, and parental influences in the search for identity among Korean adolescents were discussed above. However, most supporting studies are outdated (H. Kim, 1989; I. Kim & Jang, 1992; S. Song, 1993). Thus, it may be interesting to further investigate why Korean and American adolescents exhibit these differences in ego-identity.

Wisdom Development among Korean and American Adolescents

This study discovered that the average adolescent in both countries scores high (above cut-off points) on all dimensions of wisdom, especially the cognitive wisdom dimension. The cognitive dimension scale of wisdom measures individuals' ability to comprehend the deeper meaning of life events (Ardelt, 2003). The items measure perspective-taking skills. In other words, many of the participants of this study had the ability of understanding the meaning of human nature and life. As Piaget emphasized, adolescents seem to have qualities such as intelligence, morality, multiple viewpoints, perspective-taking, and moral reasoning, which are expected to increase during adolescence (Piaget, 1932). The results of this study support Pasupathi, Staudinger, and Baltes's (2001) findings. They discovered that adolescents have the potential for wisdom-related knowledge, and that adolescence is a crucial period for wisdom development. In

short, this study confirms that the average Korean and American adolescents demonstrated wisdom.

Another interesting finding of this study is that American adolescents scored much higher on the reflective dimension of wisdom than did Korean adolescents. According to Ardelt, the reflective dimension of wisdom is the essential element among three dimensions, because it supports the other two dimensions (Ardelt, 2000). A deeper understanding of life and its relationship with human nature comes with the eternal endeavor for self-awareness, self-insight, and meta-cognition (Ardelt, 2003). The Buddhist concept of enlightenment and the Eastern concept wisdom-seeking mental discipline (Takahashi, 2000) also relates to this dimension. In this study, both Korean and American adolescents scored above average on the reflective dimension of wisdom, while the adolescents groups from both countries revealed a significant mean difference. This could mean American adolescents might have developed more meta-cognitive ability through their experiences. In the discussion of age effects, the reflective dimension shows age contribution. This may indicate that American adolescents are more mature than Korean adolescents, which also was also implied in the discussion of identity.

Historically, the concept of Western wisdom has emphasized cognitive dimensions of wisdom such as reasoning, justice, knowledge, and judging. The concept of Eastern wisdom, on the other hand, has focused more on the reflective dimensions, such as intuition, enlightenment, mindfulness, and obedience to nature. Ironically, the results of this study contradict the traditional wisdom concepts in both cultures—a fact that may be related to the identity development process. As discussed in the previous section, it may be that American adolescents have more chances for social interaction,

which may help them to start their identity-seeking earlier. While American adolescents develop autonomy and independence early on in their life, Korean adolescents may depend a lot on their parents during school years, including college years, and focus on a one-dimensional life. Thus, Korean adolescents may not have enough chances to develop intrapersonal and interpersonal skills, which are important aspects in the development of the reflective and affective dimensions of wisdom (I. Kim & Jang, 1992; S. Song, 1993).

While most Korean adolescents spend their days in schools or institutes to prepare for tests or university entrance exams – something that has been called *examination hell* (M. Lee, 2003), American adolescents can engage in sports, romantic relationships, or other forms of social interactions. What Korean adolescents experience may be indirect learning through textbooks, which may help them to build factual knowledge, while American adolescents develop procedural knowledge (Baltes & Staudinger, 2000). Because Korean adolescents may not have enough opportunities to explore real-life experiences, they might not have chances to develop their identity – which essentially amounts to a vicious cycle. Therefore, even though the reflective wisdom dimension has been and continues to be emphasized traditionally, historically, and philosophically in Korea, adolescents who grow up in this social environment may lack an understanding of life and human nature. Reflection on individuals' life experiences has been linked to wisdom development (Baltes, 1993). At the same time, when individuals are provided with meaningful life experiences, they may also be more likely to develop intuition, enlightenment, consciousness, and meta-cognition.

The Relationship between Identity and Wisdom

The previous discussion shows that American adolescents have advanced ego-identities, compared to their Korean counterparts. One of the most intriguing findings of this study is that even though the average American adolescent showed an advanced ego-identity achievement, this was not associated with wisdom. In contrast, Korean identity achievement exhibits a significant positive correlation with all dimensions of wisdom (refer to Table 7). While bivariate correlations in the Korean dataset suggest that achievement is negatively correlated with diffusion, in the American sample, identity achieved adolescents were not negatively correlated with diffusion status. This suggests that the quality of identity achievement and other ego-identity statuses differ between Korean and American adolescents. While some studies have shown that achievement is negatively related to diffusion (Bennion & Adams, 1986), only the Korean data of this study supports Bennion and Adams's findings. Further study is necessary to investigate the cultural differences between the characteristics of ego-identity statuses.

The fact that American moratorium is positively related to diffusion, while Korean moratorium is not related to diffusion, is also an interesting finding. Judging from the negative correlations with the reflective dimension of wisdom and the positive correlation with diffusion, it seems that American adolescents that have a moratorium status display more negative qualities than do their Korean counterparts. The American body of literature shows a consistent positive relationship between moratorium and diffusion (Bennion & Adams, 1986). Bennion and Adams explained this by arguing that the diffusion and moratorium measures are distinct but overlapping constructs. However,

this study reveals that Korean data do not display a positive relationship between moratorium and diffusion. Thus, this part of the finding should be examined further.

This study consistently revealed that the absence of foreclosure and diffusion is a better way of understanding the existence of wisdom among Korean and American adolescents. Thus, it may be that encouraging identity achievement and discouraging foreclosure and diffusion may encourage wisdom development, and vice versa. Because this study did not investigate the causal effects, it is difficult to say that wisdom influences identity formation or identity formation influences wisdom development. However, wisdom development may help identity achievement more likely while at the same time helps to decrease the tendency toward foreclosure and diffusion. In other words, adolescents with wisdom may be able to get through identity crises more "wisely" and resolve identity crises and achieve identity more successfully, while adolescents with less wisdom may have a more difficult time (moratorium), simply give up on the search for an identity or accept the identity that their parents had formed for them (foreclosure), or even give up and form destructive identities (diffusion). The ego-identity literature consistently argues that there is an intricate relationship with well-being (Meeus, 1996; Meeus et al., 1999), academic success (Good & Adams, 2008), career maturity (Jang, 1994; Jeong, 2005), positive emotional development (Hogan, 1973), and social development (Blustein & Philips, 1990; S. Kim, 2005; Kroger, 2004). This study contributed to the literature by providing insights into the negative relationship between wisdom and foreclosure, wisdom and diffusion and the positive relationship between achievement and wisdom (at least for the Korean data). However, the directional

relationship between wisdom and identity status continues to remain unclear. However, it is important to note that wisdom and identity statuses are associated with each other.

Limitation to the Conclusions

There are a number of limitations in this study. Most of the limitations were mainly due to the sample and size. The population of the study was dominated by female respondents in both countries. Also, most of the American data is dominated by Caucasians. Moreover, because all participants in this study were undergraduate students, they were considered to be highly educated and thus may not fall into a lower socio-economic status group. Thus, the results of this study may not be generalizable to the general population.

Social desirability can also be a limitation, because this study utilized a self-reported assessment. American adolescents' positive self-image and Korean adolescents' reserved characteristics may have influenced the responses toward self-assessment (Offer, Ostrov, & Howard, 1981; Offer, Ostrov, Howard, & Atkinson, 1988). However, to be able to measure wisdom and identity status, self-assessment is indispensable. Reckless completion of the instruments may also have affected the validity of the data.

The two measurements may introduce certain cultural measurement biases since many of the items reflect inclusively American values and experiences. Korean adolescents, for example, may have fewer opportunities to think about political and religious or ideological issues because of their limited experiences in real life. Thus, this may affect the answers on the *RE-EOM-EIS* which in turn may impact the results of this study. Also, although 3D-WS constitutes a combined measure of Western and Eastern

wisdom concepts, the measurement still display cultural influences, which again could have an influence on the results.

Another possible limitation can be the non-randomized sampling and similar sample size. The Korean data were collected in a metropolitan city in South Korea, while the American data were taken from a rural college town in the United States. The participants' living environments and different living standards may have influenced their value system, which may have impacted the results of the study. Although each age and cultural group did not have an equal sample size, which may affect the results of the study, in most of the cases, significant mean differences (for age and cultural comparisons) were found in the two groups. However, the non-significant age effect in the 18 to 22 age group may be due to sample size issues.

Thus, the findings of this study are explorative. In order to generalize the findings of the study to the general population, studies should tap into more diverse population structure and utilize random sampling procedures.

Implications

Despite these limitations, the results of the study provide helpful insights for educational and developmental psychologists as well as educators and educational reformers. Hence, the implications for theory, research, and educational practices are discussed in this section.

Implication for Theory

This study delivers new and valuable insights for theories of ego-identity and wisdom. This study 1) discovered the relationship between ego-identity statuses and wisdom dimensions, 2) explored the cultural differences involved in identity and wisdom

development, and 3) reexamined the age contributions of ego-identity and wisdom development among late Korean and American adolescents.

So far, few studies have investigated the relationship between ego-identity and wisdom. This study examined identity statuses and wisdom dimensions and their relationship to be able to observe how ego-identity relates to wisdom development. The study showed that, among both American and Korean adolescents, identity diffusion and foreclosure are negatively related to wisdom. The identity achievement status of Korean adolescents shows the association with wisdom, while the identity achievement status of American adolescents is not associated with wisdom. These results showed that identity achievement can be a positive contribution to the development of wisdom among Korean adolescents. It is unknown why the ego-identity of Korean adolescents is related to wisdom, while American adolescents did not show the same result. However, this study could mark a crucial insight into the relationship between wisdom and ego-identity in the field of psychosocial development. The more diffused adolescents, and adolescents with foreclosure status, are less likely to show the ability and willingness to understand life, use different perspectives to examine situations, phenomenon, and people, as well as the socially desirable quality of showing positive emotions toward others.

Although there are few studies showing the direct relationship between wisdom and ego-identity, there are a few findings which display the connection between ego-identity and some characteristics of wisdom. Park (1983) argues that ego-identity achievement reveals high creativity and meaning of life, while individuals with low ego-identity achievement often feel tediousness and a sense of meaninglessness in life. Several studies also show the relationship among identity, meaning of life and goals, and

value building (Jang, 1994; E. Song, 1999), while negative self-concept leads to valuelessness and a sense of emptiness, and fails to find meaning in life (I. Song, 1998). Some American studies also illustrate the relationship between identity achievement and positive self-esteem, purpose in life, and personal growth (Berzonsky & Adams,1999; Ryff, 1989), while diffusion scores are linked to low self-esteem, low autonomy (Marcia, 1966), and a sense of hopelessness (Selles, Markstrom-Adams, & Adams, 1994).

The findings also added important information about cultural difference on ego-identity statuses among adolescents in two different countries: Korea and America. Culture strongly influences the development of both wisdom and ego-identity attributes. Some average Korean adolescents, between 18 and 22 years old, are still in the identity crisis stage, while average American adolescents of the same age group showed advanced identity development. It is also interesting that Korean adolescent have higher cognitive dimension of wisdom, while American adolescents have more the reflective and affective dimensions of wisdom. Studies in this area have not included a cross-cultural comparison. Thus, this study makes a unique contribution to the field.

One of the most interesting findings of this study is the age effect on wisdom. Wisdom has been understood as a multidimensional quality which develops with age, while some other scholars have argued that there is no correlation between age and wisdom. This study re-examined the age effects and its findings may help to open up new research tradition the field of wisdom studies. Among adolescents from 18 to 22 years, age has a significant effect on wisdom development, but only the reflective and affective dimensions of wisdom have significant age effects. The rationale of no relationship

between age and cognitive dimension of wisdom was discussed. The study also showed that there is no age effect on ego-identity development among this age group.

Practical Implications

While most theoretical implications described in the study could – one way of another – be turned into practical implications, this section offer more of a critique of the current education system and attempts to find strategies aimed at nurturing the reflective and affective wisdom dimensions in different educational settings.

First of all, several remarkable insights about wisdom development and its dimensions arose in the study. The study, for example, showed that adolescents in both cultures score high on the cognitive dimension; yet, Korean adolescents score lower on the reflective and affective dimensions. The study also revealed the age contributions of the reflective and affective dimensions of wisdom. This could mean that the reflective and affective dimensions of wisdom are factors of maturity which help to distinguish the uniqueness of wisdom in each individual in this age group. The current curriculum in both countries is designed to boost the cognitive abilities of students. As discussed earlier, the current Korean educational system forces students into *examination hell*, and marginalizes them from the real world. Not only that, this notion of *examination hell* is the result of a social structure that encourages society members to pursue material success, rather than encouraging the development of a humanistic self. Adolescents who learn in this kind of environment are concerned mostly with themselves, their own abilities, and the pursuit of success, rather than with developing positive emotions and behaviors toward others. The *No Child Left Behind* policy in American schools may also force teachers to emphasize cognitive abilities and achievement scores over the

satisfaction of humanitarian, emotional, and psychological needs of students. The time is now for the development of more reflective classroom activities that broaden adolescents' horizons and help develop positive emotions. Since identity achievement seems to be correlated to the reflective dimension, promoting the reflective dimension of wisdom may help adolescents to achieve ego-identity.

How then can we better promote the development of the reflective and affective dimensions of wisdom? Promoting diverse real life experiences through volunteer work and community service, fostering positive emotions and prosocial behavior, developing meta-cognitive, intuitive, and enlightening classroom materials, and helping students expand their world views, may help adolescents broaden their practical knowledge and provoke their thoughts, values, virtues, and morality. These kinds of activities could be included in moral or character education. These efforts would not only help develop wisdom, but also encourage adolescents to resolve their identity crises more successfully while at the same time allowing then to form positive identities. Even though it is unknown as to whether wisdom boosts identity achievement, or whether identity achievement heightens wisdom development, it is essential to note that the reflective and affective dimensions of wisdom help distinguish the quality of wisdom and identity development. As educators, we can do more to help adolescents successfully manage their identity and wisdom development.

Implication for Research

During the course of this study, more questions have arisen than have been answered because, as discussed in the implications for theory section, this study is exploratory in many ways. There are numbers of studies that can be developed out of the

current study. The most interesting and important fact discovered in this study is that even though American adolescents revealed advanced identity achievement and scored higher on the reflective dimensions of wisdom—considered to be crucial components of wisdom—observing the identity achievement of American adolescents is not a helpful way of understanding their wisdom. Thus, it is very intriguing to investigate why identity achievement is a key component for wisdom development in Korean adolescents, while not for their American counterparts. What are other factors which influence American adolescents' identity and wisdom? Why do diffusion and moratorium show a consistently positive correlation in the American data—even though these two dimensions are not in the same construct—while Korean data show no relationship between moratorium and diffusion? It seems that the qualities of ego-identity and wisdom development among adolescents in both countries differ. Thus, further research needs to be done to investigate the unique cultural impacts on identity and wisdom development.

More diverse data and a more balanced sample size may help complete the study. Thus, collecting and analyzing data from groups representing different cultures, races, ethnicities, genders, and socio-economic status groups, should be conducted as future research. Besides, this study only looked at college level adolescents between 18 to 22 years. Further studies need investigate age effects among early adolescents (10-15 years old), mid-adolescents (15-18 years old), and adults (over 22 years old).

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APPENDICES

APPENDIX A

OSU IRB APROVAL LETTER

Oklahoma State University Institutional Review Board

Date:	Thursday, January 29, 2009
IRB Application No	ED08171
Proposal Title:	The Relationship of Wisdom and Ego Identity for Korean and American Adolescents
Reviewed and Processed as:	Expedited (Spec Pop)

Status Recommended by Reviewer(s): Approved Protocol Expires: 1/28/2010

Principal Investigator(s):

Hyeyoung Bang
402 Willard
Stillwater, OK 74078

Diane Montgomery
424 Willard
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sheila Kennison, Chair
Institutional Review Board

APPENDIX B

Informed Consent Form

INFORMED CONSENT

Hello!, my name is Hyeyoung Bang and I am working on my doctoral degree from OSU. Part of my work includes conducting this research on the relationship of wisdom to identity for adolescents who are 15-22 years old. I am studying both American and Korean students.

You are here today because you are interested in participating in the study. Once you agree to take part in the study, you will be given a set of questions about your opinions and descriptions of you. It will take about 30-50 minutes to complete the survey. This is online survey and the information you provide is confidential. There is no way to identify your answers from any others once you turn it in. All survey data will be stored electronically in a data file on a CD-Rom to be stored in the locked offices of the principal investigator. There is no risk to you to participate. You can stop at any time you want.

The results of this study will provide important information about adolescents' understanding of the self to educational and developmental psychologists and educators. Thus, your participation in this project is important to understand the psychology of adolescents.

Please feel free to contact the researcher or her advisor if you have questions or concerns about this research project.

Hyeyoung Bang, Doctoral Candidate, Oklahoma State University, SAHEP, 402 Willard, Stillwater, OK, 405-269-9209, hyeyb@okstate.edu

Dianne Montgomery, Ph.D., Oklahoma State University, 424 Willard Hall, 405-744-9441, dianne.montgomery@okstate.edu

For information on participants' rights, contact Dr. Sheila M. Kennison, Oklahoma State University, IRB Chair, 219 Cordell North, 405-744-1676, irb@okstate.edu.

When you are ready and willing, you can begin the survey by clicking the "Agree to Participate" button below.

Agree to Participate

APPENDIX C

FREQUENCY DISTRIBUTIONS OF VARIABLES

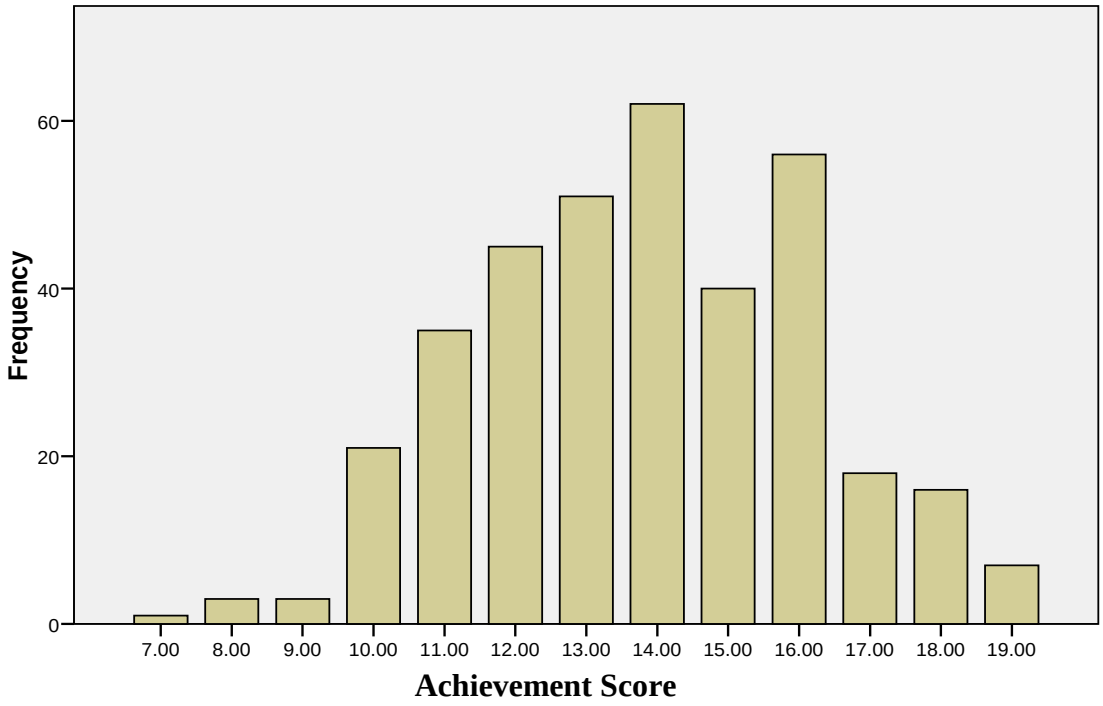

Figure 4 Distribution Score of Achievement Identity. Mean = 13.82, SD = 2.34, N = 358

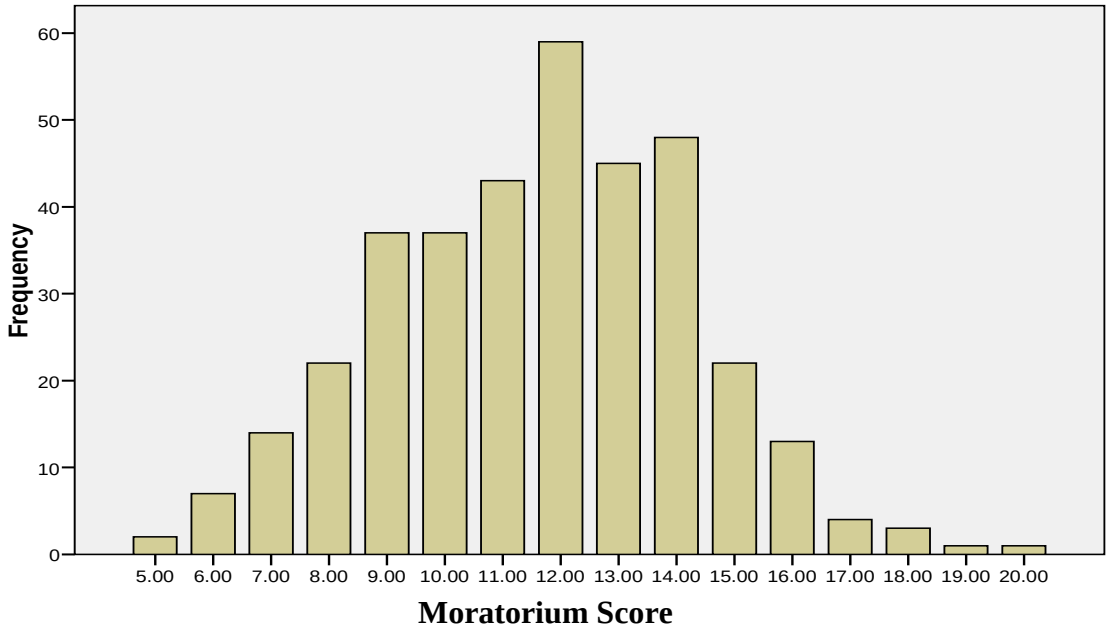

Figure 5 Distribution Score of Moratorium Identity. Mean = 11.64, SD = 2.64, N = 358

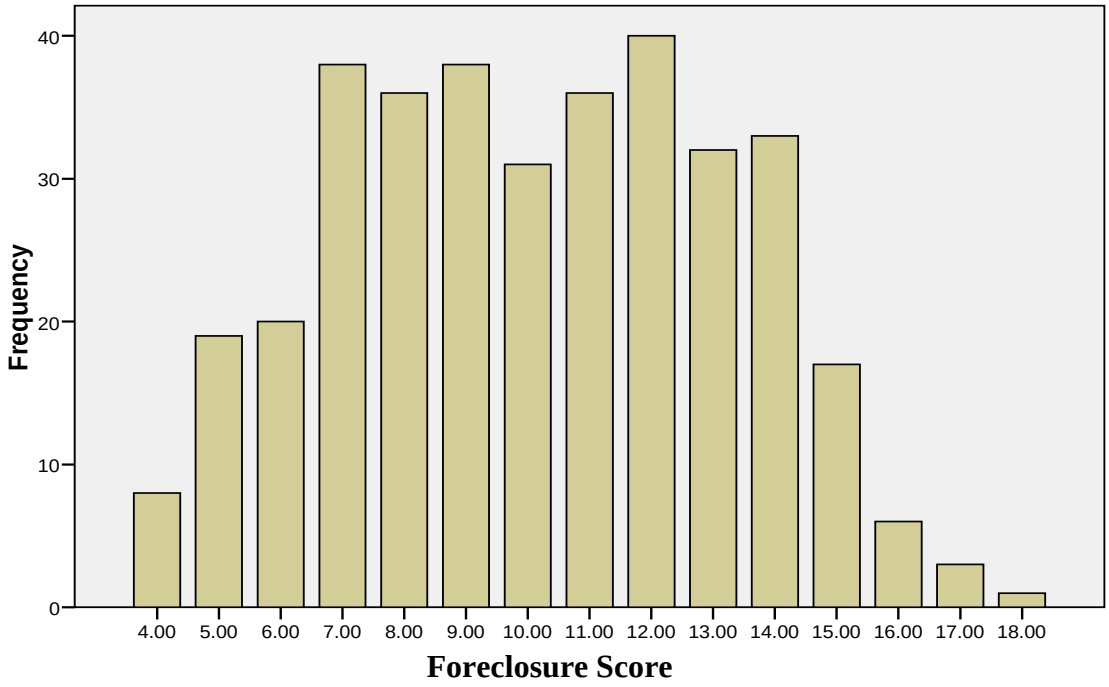

Figure 6 Distribution Score of Foreclosure Identity. Mean = 10.13, SD = 3.12, N = 358

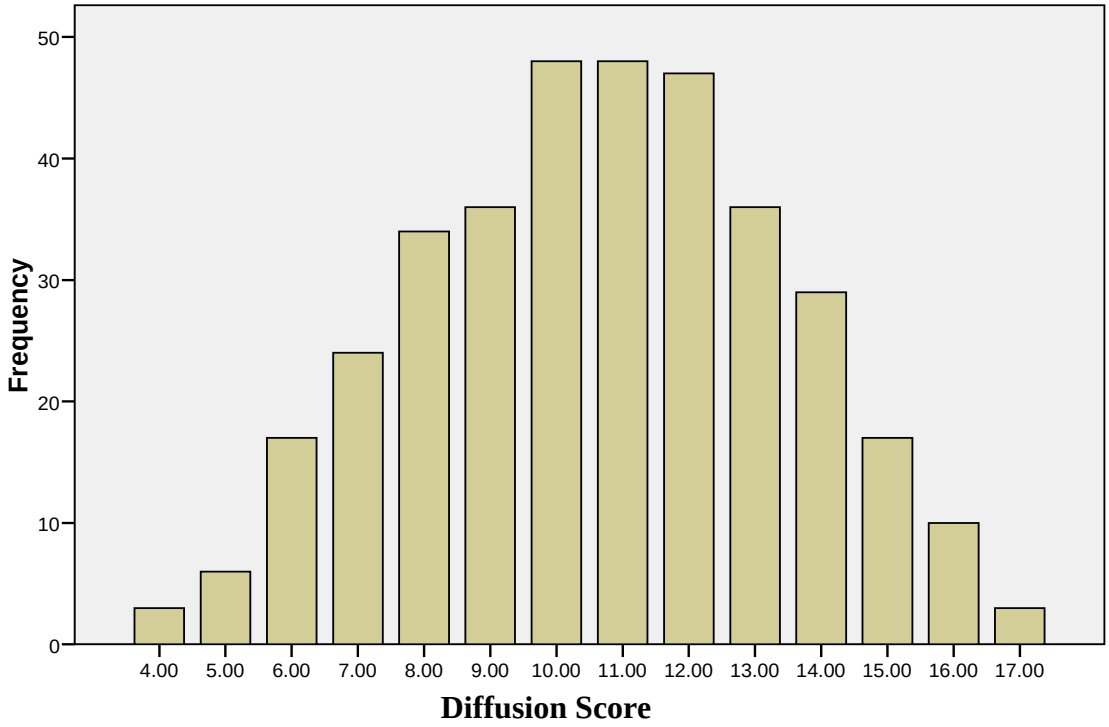

Figure 7 Distribution Score of Diffusion Identity. Mean = 10.67, SD = 2.76, N = 358

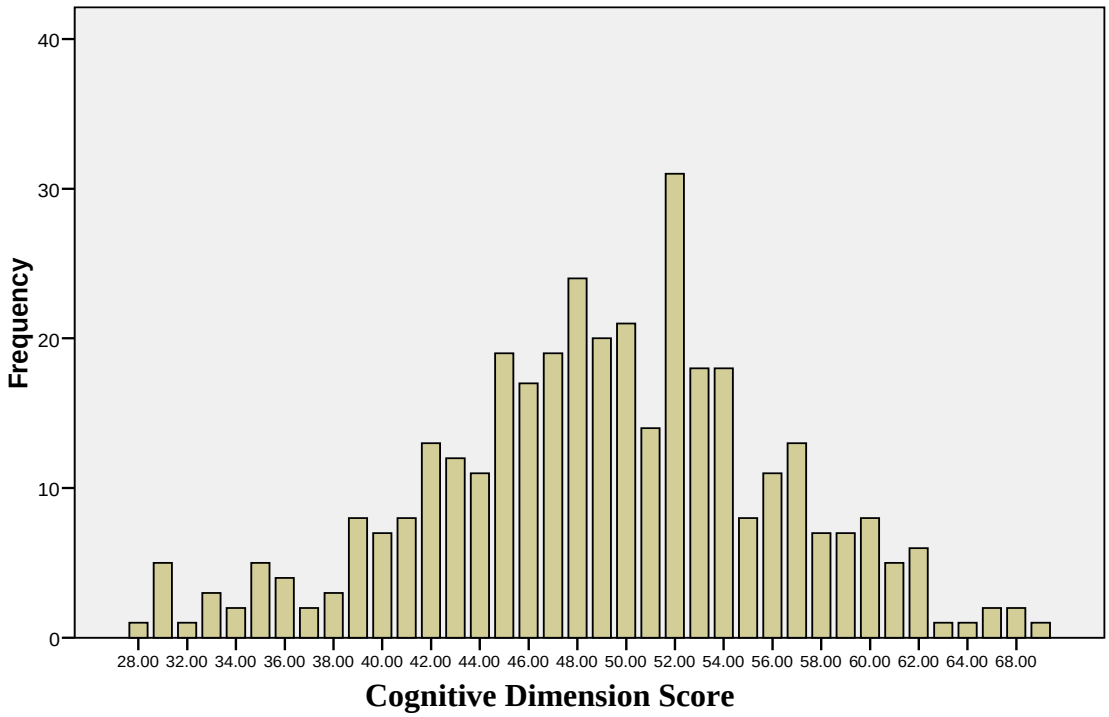

Figure 8 Distribution Score of Cognitive Dimension. Mean = 49.04, SD = 7.21, N = 358

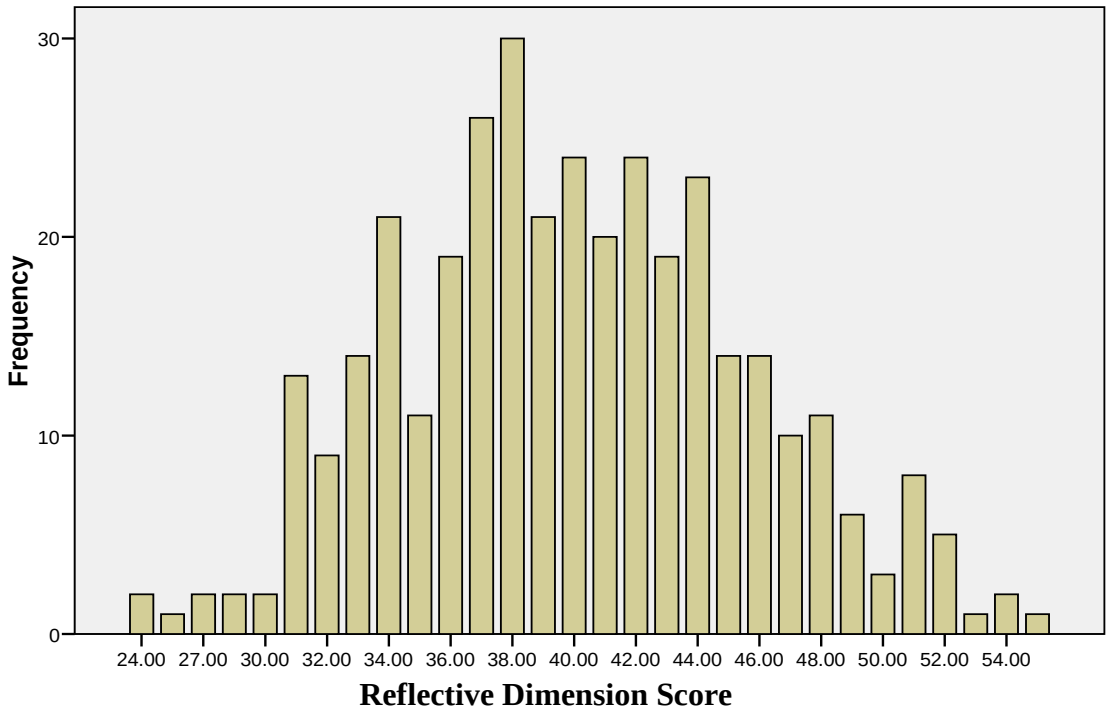

Figure 9 Distribution Score of Reflective Dimension. Mean = 40.00, SD = 5.70, N = 358

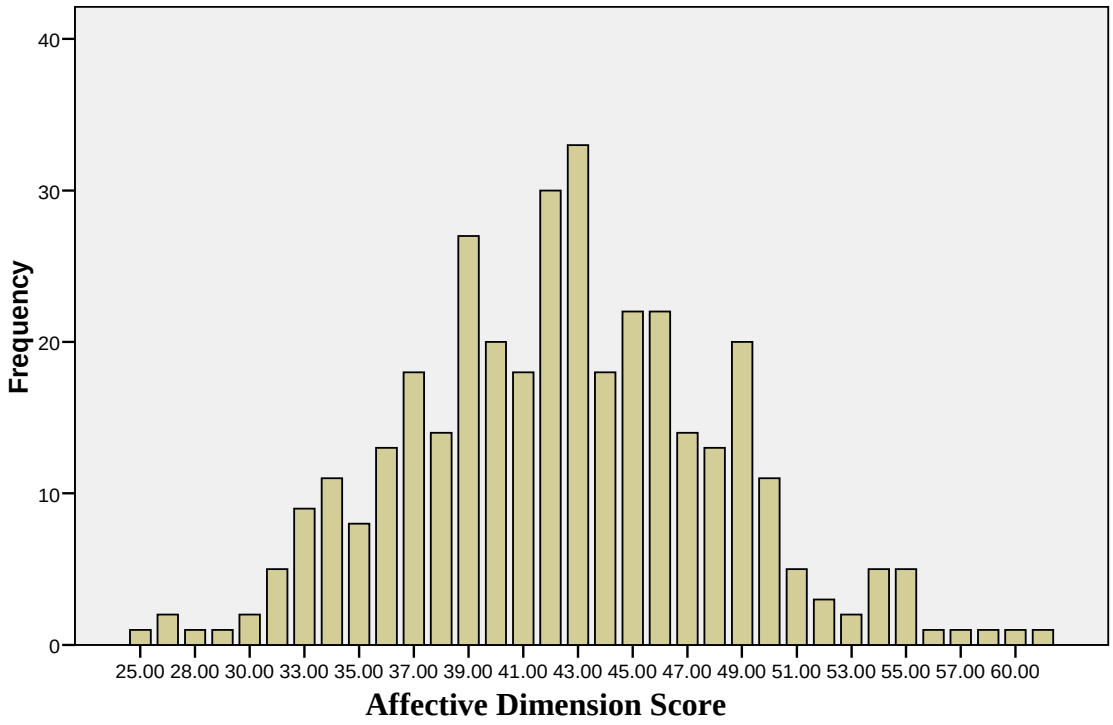

Figure 10 Distribution Score of Affective Dimension. Mean = 42.46, SD = 5.86, N = 358

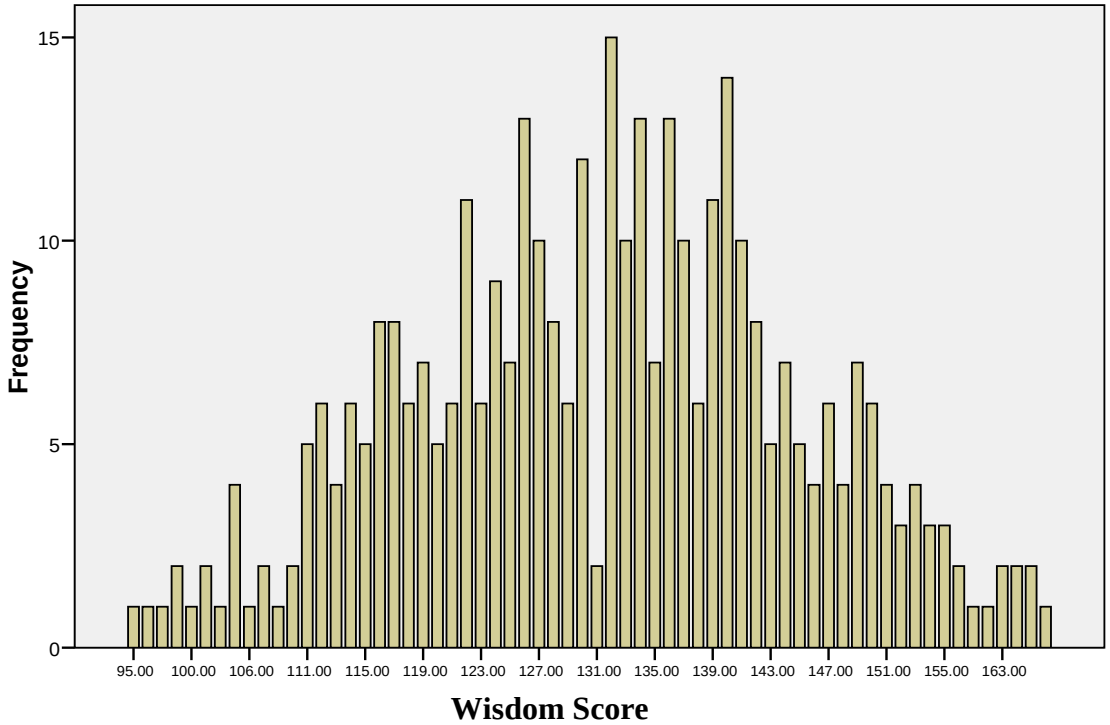

Figure 11 Distribution Score of Wisdom. Mean = 131.51, SD = 14.0, N = 358

VITA

Hyeyoung Bang

Candidate for the Degree of

Doctor of Philosophy

Dissertation: THE RELATIONSHIP OF WISDOM AND EGO-IDENTITY FOR KOREAN AND AMERICAN ADOLESCENTS

Major Field: Educational Psychology

Biographical:

Education: Received Bachelor of Arts in Elementary Education and Music Education from Busan National University of Education, Busan, South Korea in February 1990. Obtained Master of Education in English Education from Pukyong National University, Busan, South Korea in August 2002. Received a Master of Education (with Honors) in Education/Educational Psychology from the University of New England Armidale, Australia in May 2005. Completed the requirements for the Doctor of Philosophy in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in May 2009.

Experience: I obtained two national certified teacher certifications in Busan, South Korea. I have taught elementary school students from 1990-2006. I served as a committee member of appointing new teachers in Busan. I have also served as a committee member of school management board at Kumyang Elementary School. I have involved several exchange programs. I am teaching several undergraduate educational and developmental psychology courses at OSU as well as involving several research teams. I am also a member of OSU IRB.

Professional Memberships: American Educational Research Association, Southwestern Educational Research Association, International Society for the Scientific Study of Subjectivity

Name: Hyeyoung Bang Date of Degree: May, 2009

Institution: Oklahoma State University Location: OKC or Stillwater, Oklahoma

Title of Study: THE RELATIONSHIP OF WISDOM AND EGO-IDENTITY FOR KOREAN AND AMERICAN ADOLESCENTS

Pages in Study: 104 Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology

Scope and Method of Study: Wisdom is considered to be a strong predictor or determinant of well-being (Ardelt, 2003; Bianchi, 1994; Erikson et al., 1986) as well as the highest human achievement that makes a difference in a person's life (Kramer, 2000; Kunzmann, 2004). Even though some scholars have shown that adolescents may have developmental potential for wisdom (Piaget & Inhelder, 1973; Sternberg, 1998), there is a need to know the direct relationship, and cross-cultural effects.

Findings and Conclusions: This study examined the relationship of wisdom and identity statuses among 358 Korean and American late adolescents (aged 18-22 years old). The results demonstrate that average American adolescents show identity achievement, while average Korean adolescents show identity achievement and moratorium. The 2X5 factorial MANOVAs showed that there is no age effect on ego-identity status, but there is in wisdom dimensions. Univariate analysis shows a significant age effect on the reflective and affective dimensions of wisdom. Subjects in two countries revealed the significant cultural effects for both ego-identity and wisdom dimensions. With a correlation of .3 as significant, the examination of canonical loadings shows a negative correlation between foreclosure, diffusion, and all three wisdom dimensions. There is a positive correlation between identity achievement and all dimensions of wisdom among Korean data. Conclusions are 1) age affects the reflective and affective dimensions of wisdom, 2) culture impacts strongly on both wisdom and identity development, and 3) identity achievement predicts wisdom among Korean adolescents, while American adolescents' identity achievement is not linked to wisdom. The absence of foreclosure and diffusion is a helpful way of understanding wisdom for both Korean and American late adolescents. The function of identity achievement and its relationship with wisdom in both Korean and American subjects needs to be investigated further.

ADVISER'S APPROVAL: Diane Montgomery, PhD