

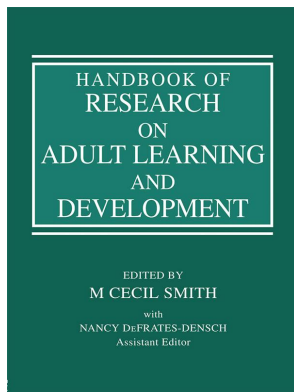
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Wisdom, Integrity, and Life Satisfaction in Very Old Age

Monika Ardelt and Steve Jacobs

What is wisdom? Although wisdom is an ancient and time-honored concept and there has been a renewed interest in the role of wisdom with respect to human development and aging during the past 25 years, contemporary researchers have been unable to reach consensus on a single, all-encompassing definition of wisdom (Dittmann-Kohli & Baltes, 1990; Kramer, 2000). The multifaceted nature of wisdom tends to evoke different connotations depending on the philosophical and theoretical orientation of a particular researcher (e.g., Achenbaum & Orwoll, 1991; Ardelt, 2003, 2004b; Arlin, 1990; Assmann, 1994; Baltes & Staudinger, 2000; Labouvie-Vief, 1990; Meacham, 1990; Sternberg, 1998; Sternberg & Jordan, 2005). According to Birren and Svensson (2005), the earliest “wisdom literature” was written more than 5000 years ago by the ancient Sumerians and consisted of practical advice for daily living, whereas the wisdom texts of the ancient Egyptians (circa 3000 B.C.) focused on good and proper behavior. The ancient Greeks were known as the “lovers of wisdom” and a thorough analysis of the concept can be found in the Platonic dialogues (Robinson, 1990). Yet, even today it remains difficult to define and conceptualize the elusive concept of wisdom.

Defining Wisdom

Contemporary definitions of wisdom can be categorized according to whether they arise from explicit (expert) theories or implicit (lay) theories of wisdom. These definitions can be further classified according to wisdom traditions of the West or the East and whether they refer to personal or general wisdom (Sternberg & Jordan, 2005). Western explicit theories have defined wisdom as:

1. expert knowledge in the fundamental pragmatics of life (including life planning, life management, and life review) and in the conduct and meaning of life (Baltes & Smith, 1990; Baltes & Staudinger, 2000; Baltes, Staudinger, Maercker, & Smith, 1995; Dittmann-Kohli & Baltes, 1990; Smith & Baltes, 1990; Smith, Staudinger, & Baltes, 1994);
2. as “the application of tacit knowledge as mediated by values toward the achievement of a common good through a balance among multiple (a) intrapersonal, (b) interpersonal, and (c) extrapersonal interests in order to achieve a balance among (a) adaptation to existing environments, (b) shaping of existing environments, and (c) selection of new environments” (Sternberg, 1998, p. 347);
3. as the transformation of intrapersonal, interpersonal, and transpersonal experiences in the domains of personality, cognition, and conation (Achenbaum & Orwoll, 1991);

4. as “seeing through illusion,” which requires (a) realizing the illusion of a false belief, (b) not being tempted by the illusion, and (c) having sympathy for others who are still under the spell of the illusion (Mckee & Barber, 1999);
5. as the art of questioning (Arlin, 1990) or the balance between knowing and doubting (Meacham, 1990);
6. as the balance between emotion and detachment, action and inaction, and knowledge and doubt in dealing with life’s vicissitudes (Birren & Fisher, 1990); or
7. as self-transcendence (Levenson, Jennings, Aldwin, & Shiraishi, 2005).

As Takahashi (2000) has pointed out, explicit theories of wisdom might differ for the philosophical wisdom traditions of Western and Eastern cultures. The wisdom traditions of the West tend to emphasize the cognitive dimension of wisdom (i.e., knowledge and analytical ability), whereas the Eastern wisdom traditions tend to integrate the cognitive, reflective, and affective elements of wisdom.

Implicit wisdom theories refer to common-sense, folk approaches to wisdom and describe how lay people tend to perceive wisdom. Based on respondents’ characterizations of wisdom, the concept has been defined as a combination of cognitive, reflective, and affective personality qualities (Clayton & Birren, 1980), as exceptional understanding, judgment and communication skills, general competencies, interpersonal skills, and social unobtrusiveness (Holliday & Chandler, 1986), as reasoning ability, sagacity, learning from ideas and environment, judgment, expeditious use of information, and perspicacity (Sternberg, 1990a), or as an integration of self-knowledge, understanding of others, judgment, life knowledge, life skills, and willingness to learn (Brown, 2004). Bluck and Glück (2005) identified five subcomponents of wisdom that emerged in five studies on implicit wisdom theories: cognitive ability, insight, reflective attitude, concern for others, and real-world skills. Moreover, Takahashi and Bordia (2000) found that Western undergraduate students tend to highlight the cognitive dimension of wisdom, whereas Eastern undergraduate students tend to combine the cognitive and affective dimensions of wisdom. Takahashi and Overton (2005) argue that implicit wisdom theories correspond to the ideal self in a particular culture and, therefore, often vary between Western and Eastern cultures. They recommend that wisdom definitions should avoid cultural egocentrism and instead consist of the broadest and most inclusive characterizations of wisdom.

Other researchers have tried to determine the characteristics of wisdom by inquiring about situations or events during which adolescents, young adults, and older respondents said, thought, or did something wise (Bluck & Glück, 2004; Glück, Bluck, Baron, & McAdams, 2005; Montgomery, Barber, & McKee, 2002). Bluck and Glück (2004) found that adolescents and adults most often experienced wisdom when they were able to transform an event or situation that was initially perceived as negative into a positive outcome. Furthermore, young and older adults were more likely than adolescents to report that they had learned a life lesson or gained a life philosophy from the wisdom experience. The wisdom experiences that respondents described consisted either of empathy and support for others, self-determination and assertion, or knowledge and flexibility (Glück, Bluck, Baron, & McAdams, 2005). Similarly, Montgomery, Barber, and McKee’s (2002) in-depth analysis of semi-structured interviews with six older adults between the age of 60 and 88 produced six characteristics of experienced wisdom: guidance, knowledge, experience, moral principle, perspective of time, and compassion.

Following the suggestion by Takahashi and Overton (2005) to define wisdom in a

Table 25.1 Definition of Wisdom as a Three-Dimensional Personality Characteristic

Dimension	Definition
Cognitive	<ul style="list-style-type: none"> • An understanding of life and a desire to know the truth, i.e., to comprehend the significance and deeper meaning of phenomena and events, particularly with regard to intrapersonal and interpersonal matters. • Includes knowledge and acceptance of the positive and negative aspects of human nature, of the inherent limits of knowledge, and of life's unpredictability and uncertainties.
Reflective	<ul style="list-style-type: none"> • A perception of phenomena and events from multiple perspectives. • Requires self-examination, self-awareness, and self-insight.
Affective	<ul style="list-style-type: none"> • Sympathetic and compassionate love for others.

Adapted from Ardel, M. (2004). Wisdom as expert knowledge system: A critical review of a contemporary operationalization of an ancient concept. *Human Development*, 47, 257–285.

broad and culturally inclusive way, we believe that wisdom is best characterized as an integration of cognitive, reflective, and affective personality qualities, given the fact that most definitions and descriptions of wisdom contain cognitive, reflective, and affective (emotional) components that are inherently related to each other (Baltes & Staudinger, 2000; Bassett, 2005, 2006; Manheimer, 1992; Sternberg, 1990b; Sternberg & Jordan, 2005; Taranto, 1989; Vaillant, 2002; Webster, 2003). This definition was originally based on Clayton and Birren's groundbreaking empirical research on implicit wisdom theories (1980), but has evolved to incorporate explicit theories of wisdom from both the Western and Eastern wisdom traditions (see Table 25.1).

The cognitive dimension of wisdom refers to the search for truth (Osbeck & Robinson, 2005). This dimension is characterized by the quest for a clear and comprehensive understanding of the significance and deeper meaning of life, particularly with respect to intrapersonal and interpersonal phenomena and events (Ardelt, 2000b; Blanchard-Fields & Norris, 1995; Chandler & Holliday, 1990; Kekes, 1983; Sternberg, 1990a). To achieve such an understanding of life, one must come to accept both the positive and negative aspects of human nature, the fundamental limits of knowledge, and life's unpredictability and uncertainties. However, one can only develop such a deep and unbiased view of life after one has "seen through illusion" (McKee & Barber, 1999) and transcended one's own subjectivity and projections to perceive reality as it is. Subjectivity and projections tend to cause people to blame circumstances and others for their failures and to credit their own skills and abilities for their successes instead of taking all possible factors into account (Bradley, 1978; Green & Gross, 1979; Riess, Rosenfeld, Melburg, & Tedeschi, 1981; Sherwood, 1981). The transcendence of one's subjectivity and projections is the task of the reflective dimension of wisdom. It requires a perception of phenomena and events from many different perspectives as well as self-examination, self-awareness, and self-insight. A gradual transcendence of one's subjectivity and projections also tends to reduce ego-centeredness, which makes it easier to perceive and accept the reality of the present moment and to obtain a more thorough and sympathetic understanding of oneself and others (Csikszentmihalyi & Rathunde, 1990; Hart, 1987; Kekes, 1995; Levitt, 1999; Taranto, 1989). A diminished sense of ego-centeredness and the acknowledgement and acceptance of one's own negative aspects of the self will make it easier to develop sympathetic and compassionate love for others that are similarly not perfect. A general sentiment of good-will and sympathetic, compassionate love for all beings describes the

affective dimension of wisdom (Achenbaum & Orwoll, 1991; Clayton & Birren, 1980; Csikszentmihalyi & Rathunde, 1990; Hart, 1987; Holliday & Chandler, 1986; Kramer, 1990; Levitt, 1999; Orwoll & Achenbaum, 1993; Pascual-Leone, 1990). Thus, wisdom is comprised of three distinct but interrelated dimensions. This parsimonious, yet comprehensive definition of wisdom appears to be compatible with most contemporary as well as ancient explicit and implicit theories of wisdom from both the wisdom traditions of the East and the West (Blanchard-Fields & Norris, 1995; Curnow, 1999; Levitt, 1999; Manheimer, 1992; Sternberg, 1990b, 1998; Sternberg & Jordan, 2005; Takahashi & Bor-dia, 2000).

Methodological Issues in Wisdom Research

How do we determine what constitutes wisdom and who is wise? Various researchers have implemented diverse techniques in an effort to assess and measure wisdom empirically (Ardelt, 1997, 2003; Baltes & Staudinger, 2000; Helson & Srivastava, 2002; Kitchener & Brenner, 1990; Staudinger, Dörner, & Mickler, 2005; Takahashi & Overton, 2005; Webster, 2003; Wink & Dillon, 2003; Wink & Helson, 1997). This research can be divided into two types of studies: those that (a) assess the implicit theories or the meaning of wisdom as described by lay people and others that (b) use either explicit or implicit theories of wisdom to measure people's wisdom or their wisdom-related performance (Ardelt, 2003).

Assessment of Implicit Wisdom Theories

Clayton and Birren (1980) conducted a study to assess how young, middle-aged, and older adults define wisdom. Each person was given a list of 12 wisdom descriptors generated from an earlier study and asked to pair up the descriptors with the words "wise," "aged," and "myself," rating the similarity of all possible, non-redundant word pairs. A multidimensional scaling analysis of the similarities between the pairs resulted in three wisdom dimensions, which Clayton and Birren (1980) labeled cognitive (knowledgeable, experienced, intelligent, pragmatic, and observant), reflective (introspective and intuitive), and affective (understanding, empathetic, peaceful, and gentle).

Holliday and Chandler (1986) used a similar approach in their study of young, middle-aged, and older adults. They first asked the adults to describe the concept of wisdom, which resulted in 79 distinct wisdom attributes. Those attributes were rated in a second study by a different group of young, middle-aged, and older adults on a scale from 1 (almost never true of wise people) to 7 (almost always true of wise people). A principal component analysis of the descriptors yielded five wisdom factors, which Holliday and Chandler (1986) termed exceptional understanding, judgment and communication skills, general competencies, interpersonal skills, and social unobtrusiveness. Interestingly, four of these factors represent cognitive, reflective, and/or affective attributes.

Along the same lines, Sternberg (1990a) asked laypersons to describe a wise individual and professors of art, business, philosophy, and physics to describe the ideal wise person in their respective field. Sternberg (1990a) gave the obtained descriptors to a second group of laypersons and professors in the same fields and asked them to rate the descriptors on a scale from 1 (behavior extremely uncharacteristic for a wise person in my occupation/in general) to 9 (behavior extremely characteristic). The 40 highest ranked behaviors were arranged by college students under as many category headings as desired. A nonmetric multidimensional scaling analysis of these arrangements resulted

in six wisdom dimensions, which Sternberg (1990a) named reasoning ability, sagacity, learning from ideas and environment, judgment, expeditious use of information, and perspicacity. Once again, these dimensions pertain to cognitive, reflective, and/or affective attributes of wisdom.

Measurement of Wisdom or Wisdom-Related Performance

Few researchers have thus far attempted to measure individuals' degrees of wisdom or their wisdom-related performances. However, Baltes and colleagues from the Max Planck Institute for Human Development and Education in Berlin have conducted rather extensive empirical work on the subject. Proceeding from a theoretical definition of wisdom as expert knowledge and judgment in the fundamental pragmatics of life, these researchers attempt to assess wisdom-related knowledge or performance by asking people to respond to hypothetical life problems in the areas of life planning, life management, and life review (Baltes & Staudinger, 2000; Smith & Baltes, 1990). At least two independent judges then rate the respondents' answers according to the presence of five wisdom criteria: rich factual knowledge, rich procedural knowledge, life span contextualism, value relativism, and the recognition and management of uncertainty. Wisdom-related performance was positively associated with openness to experience, psychological mindedness, creativity, and certain cognitive thinking styles (Staudinger, Lopez, & Baltes, 1997; Staudinger, Maciel, Smith, & Baltes, 1998). Furthermore, wisdom nominees and clinical psychologists tended to be rated higher on the five wisdom criteria than did other professionals, although wisdom nominees did not perform significantly better on the wisdom criteria than clinical psychologists (Baltes, Staudinger, Maercker, & Smith, 1995; Smith, Staudinger, & Baltes, 1994; Staudinger, Maciel, Smith, & Baltes, 1998; Staudinger, Smith, & Baltes, 1992). To define, operationalize, and measure wisdom as expert knowledge in the fundamental pragmatics of life might be problematic, however, if this approach is unable to distinguish between wisdom and mere intellectual or theoretical knowledge in the fundamental pragmatics of life (Ardelt, 2004b). We suggest instead that wisdom is inherently embodied by individuals, and it is the wisdom of people that should be measured, not the wisdom of their knowledge (Ardelt, 2004a).

Kitchener and Brenner (1990) use the Reflective Judgment Interview to measure individuals' wisdom-related performances. This research rates people according to their ability to solve complex decision problems that are devoid of a clear solution. Individuals who reach the highest stage of the Reflective Judgment model are deemed wise and are characterized by judgments that "reflect a recognition of the limits of personal knowledge, an acknowledgment of the general uncertainty that characterizes human knowing, and a humility about one's own judgments in the face of such limitations" (Kitchener & Brenner, 1990, p. 226). Ratings on the Reflective Judgment Interview were positively correlated with education and with age among high school and college students and young adults.

Similarly, Brugman's (2000) 15-item epistemic cognition questionnaire (ECQ15) intends to measure wisdom as expertise in uncertainty. The ECQ15 consists of three components that assess acknowledgement of uncertainty, emotional stability despite uncertainty, and the ability to act in the face of uncertainty. Epistemic wisdom was positively associated with the personality trait openness to experience in samples of young and older adults.

In contrast to wisdom-related knowledge, which is considered "a cultural and collective product" (Baltes & Staudinger, 2000, p. 127) and "too large and complex to be stored

in one individual's mind" (Staudinger & Baltes, 1996, p. 748), personal or self-related wisdom has been measured as rich self-knowledge, availability of heuristics for growth and self-regulation, interrelating the self, self-relativism, and tolerance of ambiguity (Staudinger, Dörner, & Mickler, 2005). Similar to wisdom-related knowledge, self-related wisdom was positively related to openness to experience and psychological mindedness.

Wink and Helson (1997) selected cognitive, reflective, and mature adjectives from the Adjective Check List (ACL) to measure "practical wisdom" and rated the respondents' examples of their own wisdom development to assess "transcendent wisdom." To receive a high rating on transcendent wisdom, "...the statement needed to be abstract (transcending the personal), insightful (not obvious), and to express key aspects of wisdom, such as a recognition of the complexity and limits of knowledge, an integration of thought and affect, and philosophical/spiritual depth" (Wink & Helson, 1997, p. 6).

In a later study, Helson and Srivastava (2002) measured wisdom as a latent variable with practical wisdom, transcendent wisdom, and scores on a wisdom task from the Berlin wisdom group (Baltes, Staudinger, Maercker, & Smith, 1995) as the effect indicators. The wisdom task consisted of a hypothetical life problem that asked respondents what they would do if a friend telephoned to inform them that he or she has decided to commit suicide. In contrast to the Berlin wisdom studies, responses to the wisdom task were given in writing rather than verbally, and the answers were rated according to the respondents' cognitive differentiation, procedural knowledge, emotional understanding, and acknowledgement of moral complexity. With the exception of procedural knowledge, those ratings differed from the Berlin group's wisdom criteria.

Levenson, Jennings, Aldwin, and Shiraishi (2005) developed the Adult Self-Transcendence Inventory (ASTI) to measure self-transcendent wisdom. The ASTI was unrelated to gender and educational status.

Takahashi and Overton (2002) assess the analytic and synthetic modes of wisdom. The analytic mode is measured by the size of one's knowledge database and abstract reasoning skills, whereas the synthetic mode of wisdom consists of reflective understanding, emotional empathy, and emotional regulation. In a study of 136 middle-aged and older American and Japanese men and women, American respondents tended to score significantly higher on the five wisdom variables than did Japanese respondents (Takahashi & Overton, 2002).

Webster's (2003, 2007) Self-Assessed Wisdom Scale (SAWS) consists of five components (critical life experiences, reflectiveness/reminiscence, emotional regulation, openness to experience, and humor), which were selected to measure the non-cognitive aspects of wisdom. The SAWS was unrelated to education but significantly associated with perceived health and gender in the original 2003 study. Women tended to score higher on the SAWS than men. However, the revised SAWS (Webster, 2007) was not significantly correlated with gender.

Brown and Greene's (2006) self-administered Wisdom Development Scale (WDS) contains five factors, which were derived from Brown's (2004) Model of Wisdom Development in reference to integrated learning outcomes. The factors are self-knowledge, altruism, inspirational engagement, judgment, life knowledge, life skills, and emotional management.

Ardelt (1997, 2000a, 2003) measured wisdom as a three-dimensional latent variable with cognitive, reflective, and affective effect indicators. In a secondary data analysis of a sample of 120 white older adults (age range: 58–82 years) from Berkeley, California, items from Haan's Ego Rating Scale (Haan, 1969) and the California 100-item Q-sort (Block, 1971) were selected at face validity to assess the cognitive, reflective, and affective

dimensions of the latent variable wisdom. The respondents were interviewed in 1968/69 as part of a 40-year follow-up project (Maas & Kuypers, 1974). At least two clinically experienced and trained coders read the transcribed semi-structured interviews and rated the respondents. To measure wisdom in large, standardized surveys, Ardel (2003) developed a self-administered three-dimensional wisdom scale (3D-WS) with the cognitive, reflective, and affective dimensions as effect indicators of the latent variable wisdom. A study of 180 older adults between the age of 52 and 87 supported the validity and reliability of the 3D-WS. Confirmatory factor analyses in the rating and the survey study confirmed that the latent variable wisdom can be assessed through cognitive, reflective, and affective effect indicators. The cognitive wisdom dimension measures the ability and desire to understand a situation or phenomenon thoroughly, the reflective dimension assesses the perception of phenomena and events from different perspectives and the absence of subjectivity and projections, and the affective wisdom dimension measures sympathy and compassion for others, that is, the presence of positive and the absence of indifferent or negative emotions and behavior toward others.

Wink and Dillon (2003) also used items from the California 100-item Q-sort (Block, 1971) to assess a person's degree of wisdom in a longitudinal study of 157 predominantly white adults from Berkeley and Oakland, California. Individuals who were characterized by independent panels of expert raters as straightforward, clear thinking, introspective, insightful, philosophically concerned, and unconventional in thinking were considered high in wisdom. Spirituality in late middle and late adulthood was significantly correlated with wisdom in late adulthood, suggesting that highly spiritual individuals maintain complex thought patterns and insight into the human condition. Furthermore, religiousness but not spirituality in early adulthood was significantly associated with wisdom in late adulthood, whereas religiousness in late middle and late adulthood was unrelated to wisdom in late adulthood.

Development of Wisdom across the Life Course

Erik Erikson (1963, 1982) was probably the first contemporary researcher who outlined the development of wisdom across the life course. In the following section we will introduce Erikson's stage model of human development and point out differences between his theoretical model and empirical findings. The next section focuses on social factors that might influence the acquisition of wisdom throughout the life course, such as the family and the social environment. The subsequent section explores the question of whether wisdom increases with age. Finally, we examine whether crises and hardships in life might be pathways to wisdom.

Erikson's Stage Theory of Human Development and the Development of Wisdom

According to Erikson's (1963, 1982) stage model of human development, the life course can be understood as a series of developmental tasks starting in early infancy with the psychosocial crisis of basic trust versus basic mistrust and ending in old age with the crisis of ego integrity versus despair. If a crisis is resolved successfully, a person will gain a specific strength or virtue that is necessary to solve the next and all subsequent developmental crises. For Erikson (1963, 1982), wisdom is the highest virtue that results when the eighth psychosocial crisis, ego integrity versus despair, is resolved in old age (Glover, 1998).

The first crisis that an infant encounters is the feeling of basic trust versus basic mistrust. When basic trust in the environment outweighs a basic mistrust in the environment,

hope emerges. The second crisis during early childhood is characterized by autonomy versus shame and doubt, and its successful resolution results in the strength of will. In the next two stages, during a child's play and school age, a child first struggles with initiative versus guilt and then with industry versus inferiority. The virtues that emerge from those two stages are purpose (play age) and competence (school age). During adolescence, a person is in search for his or her identity and is threatened by identity confusion. The strength gained by the resolution of this crisis is fidelity. The early adulthood years are characterized by a search for intimacy and the avoidance of isolation. The successful resolution of this crisis leads to the discovery of mature love, which should not to be confused with the feeling of "being in love" at the beginning of a new romance. The task during middle and late adulthood is to engage in generativity to help the next generation succeed and move forward rather than being resigned to personal stagnation or self-absorption. Care for others is the basic strength that evolves if this crisis is resolved successfully. The final crisis of ego integrity versus despair occurs in old age and requires the integration of an individual's entire life course into a coherent whole without despairing over missed opportunities or mistakes in the past or the inevitable approach of life's end. Wisdom is the virtue and strength that results from the resolution of this crisis.

If a person fails to successfully resolve a developmental task either due to a reluctance to face a certain crisis (foreclosure) or an inability to resolve a psychosocial crisis (psychological moratorium), the mastery of subsequent life stages might be severely impaired. If this is the case, the psychosocial development of an individual might be halted and fixated at an earlier stage, thereby thwarting the developmental potentials of all later stages (Clayton, 1975). Hence, to gain the basic strengths or virtues of later life stages, the developmental tasks of all previous life stages need to be resolved first. As Markstrom, Li, Blackshire, and Wilfong (2005, p. 86) point out, "... the likelihood of ascendance of later ego strengths is enhanced through positive resolutions of earlier psychosocial crises and ascendance of ego strengths." This can either be done at the appropriate time when the crisis is acute or at a later life stage (Meacham, 1989). For example, a young man who is still confused about his identity (Stage 5) is unlikely to experience mutual, mature love (the resulting strength of Stage 6). Only after he has resolved the crisis from Stage 5 and accepted a certain identity for himself will he be ready to address the next crisis of intimacy versus isolation featuring love as its emerging strength.

From this perspective, wisdom is the result of the successful resolution of a long series of psychosocial crises or developmental tasks. Yet, although wisdom appears in Erikson's theory only as the positive end result of the final crisis, integrity versus despair, its emergence depends on the successful resolution of all previous crises. This indicates that wisdom develops gradually over the life course according to a person's ability to master each developmental task (Clayton & Birren, 1980; Orwoll & Perlmutter, 1990).

Erikson's model of life stages and their accompanying crises can be understood as an ideal type (Weber, 1980) of human development that is rarely if ever achieved in reality. Most people do not actually resolve all of the crises in the appropriate order as they pass through the stages of life, and many might never reach the last virtue, wisdom, if they remain stuck in earlier developmental stages (Clayton, 1975). This might happen due to foreclosure or a prolonged psychological moratorium. Furthermore, some people might deal with a crisis only to the extent that they are able to function "normally," that is, without showing any obvious signs of psychological impairment. Yet, having never solved the crisis thoroughly, their future psychological development might be unstable and sometimes even regress until the crisis reappears and is finally resolved (Clayton, 1975).

In addition, each developmental task is present at each and every stage of the life course, although in various strengths. The crisis of ego integrity versus despair, for example, is felt only weakly during childhood, but it is not totally absent. From this perspective, wisdom is as much the desired end result of human development as it is a virtue with potential development already beginning shortly after birth. Conversely, each developmental task emerges again during all subsequent life stages, but with different qualities. No crisis can be fully solved once and for all, and although the successful resolution of a crisis at an earlier stage facilitates its resolution at a later stage, there is no guarantee that the task will be successfully accomplished. Foreclosure or a psychological moratorium is again possible and sometimes even partial regress might be unavoidable. Hence, all psychosocial crises and their resulting virtues are related to each other, and the emergence of wisdom is not confined to old age alone. Individuals might struggle with any of Erikson's developmental tasks at any stage in the life cycle (Kivnick, 1993). The only safe conclusion one can draw is that a person is less likely to be strongly negatively affected by a psychosocial crisis whose ascendance has not yet been reached than by the predominant and all previous crises. Indeed, in a cross-sectional study which implicitly included different age groups, Nicholson (1980) was unable to detect any universal age-related life crises.

The emergence of wisdom is, therefore, less clearly attributable to the last stage of life than Erikson's theory first suggests. Instead, it appears that the development of wisdom takes place continuously over the whole life course and that a person's degree of wisdom at each life stage depends as much on the extent of its acquisition during earlier life stages as on the successful resolution of the individual's past and current crises. This statement is in accordance with the life course perspective, which posits that a certain stage of life, such as old age, can only be completely understood when one considers all previous life stages of an individual (Elder, 1994; Elder & Liker, 1982; Meacham, 1989).

Personality and Social Factors Influencing the Acquisition of Wisdom throughout the Life Course

Even though Erikson's theory focuses primarily on psychological factors of human development, the influence of personality and environmental factors, particularly during an individual's early years of life, cannot be neglected. Childhood experiences play a crucial part in Erikson's theory of development. Half of the eight psychosocial crises described by Erikson take place in childhood, when an individual's physical and psychological well-being depends largely on interactions with other family members. Therefore, childhood experiences lay the foundation for a person's capacity to deal with later psychosocial crises during adolescence and adulthood.

Past studies demonstrate that the social environment has an impact on a person's psychosocial development (Ewens, 1984; Kohn, 1977; Kohn & Schoenbach, 1983; Meyers, 1989; Schneewind, 1995; Thalberg, 1978; Vaillant, 1977). Although "... early-emerging individual differences in personality shape how individuals experience, interpret, and respond to the developmental tasks they face across the life course" (Caspi, Roberts, & Shiner, 2005, p. 417), research has also shown that even innate personality predispositions can be fashioned by the social environment. Reiss, Neiderhiser, Hetherington, and Plomin (2000) report that parents are likely to reinforce their children's innate personality dispositions. For example, parents tend to be more protective of a shy and withdrawn child than a child that is socially adept and outgoing. This parenting behavior, in turn, prompts changes in the child's brain that cement the personality dispositions of the

child even further. Thus, the very structure of an individual's brain is molded in part by the social environment, as environmental stimuli determine which of the brain's neurons will flourish (Eisenberg, 1999; Reiss, Neiderhiser, Hetherington, & Plomin, 2000).

Twin and adoption studies suggest that genes have a greater impact on the cognitive development than on the psychosocial development of the child. For example, a longitudinal study that assessed the intelligence of adopted and biological children from their first to their sixteenth birthday showed that similar to biological children, the IQ of adopted children during their middle childhood and adolescent years resembled more the IQ of their biological parents than the IQ of their adoptive parents (Plomin, Fulker, Corley, & DeFries, 1997). By contrast, twin studies demonstrate that the psychosocial development of the child can be directly affected by parenting behavior. For example, in a study of five-year old monozygotic twin pairs and their mothers, the twin who received more maternal warmth and less emotional negativity was less likely to exhibit antisocial behavior problems than the other twin (Caspi et al., 2004).

A difficult social environment and behavior problems in childhood are often predictors for a negative developmental trajectory across the whole life course. For example, a 25-year longitudinal study by Fergusson, Horwood, and Ridder (2005a, b) linked childhood behavior problems and adverse family circumstances to unfavorable psychosocial development in adulthood ranging from relationship and mental health problems to substance abuse and criminal behavior. Those results lend support to earlier findings by Caspi, Bem, and Elder (1989), which showed that ill-tempered children had a tendency to become ill-tempered adults. Furthermore, ill-tempered boys were more likely than other boys to experience divorce, unemployment, and downward occupational mobility as adults, and ill-tempered girls had a higher chance than other girls to marry men with lower occupational status and get divorced later in life. The negative spiral is likely to repeat itself when adults with a history of psychosocial problems become parents. A longitudinal study by Jaffee, Belsky, Harrington, Caspi, and Moffitt (2006) showed that parents with a history of conduct disorder during early and late adolescence were less likely to engage in positive parenting behavior with their 3-year old toddlers and more likely to have children with difficult-to-manage behavior problems than parents without a history of conduct disorder.

Other aspects of the social setting in which an individual is raised have ramifications on psychosocial development as well. For instance, neighborhood structure has been shown to account for antisocial behavior, whereas the presence of adult supervision and adult interventions tends to reduce delinquency and negative outcomes in children (Eisenberg, 1999; Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999). The quality of communication with parents and interactions with teachers also directly affect adolescents' behavioral and psychological adjustment (Estevez, Musitu, & Herrero, 2005). Besides families, schools might facilitate children and adolescents' psychosocial development (Jax, 2005; Sternberg, 2001). The engagement in structured extracurricular activities is also likely to stimulate psychosocial development among adolescents. A study by Markstrom, Li, Blackshire, and Wilfong (2005) revealed that involvement in student government, issues groups, sports, or volunteer activities was associated with the ego strengths of hope, will, purpose, competence, and wisdom. Additionally, involvement in student government or volunteer activities was correlated with the ego strength of fidelity, and participation in the creative arts, issues groups, sports, and volunteer activities was related to the ego strength of care.

Yet, what exactly is the role of environmental stimuli in the development of wisdom throughout the life course? Even if it is true that a supportive social environment during

childhood and adolescence will foster psychosocial development and that unfavorable circumstances can have long-lasting detrimental effects (e.g., Brooks, 1981; Erikson, 1963; Ewens, 1984; Heath, 1991; Horney, 1970; Maslow, 1970; Meyers, 1989; Vaillant, 1977), this does not mean that positive or negative childhood experiences determine the destiny of a person (Allport, 1961; Clausen, 1993; Vaillant, 1993, 2002). Yet, longitudinal research on the long-term effects of a person's childhood and social environment on the cultivation of wisdom are extremely rare. Ardel (2000a), for example, found that a supportive social environment in early adulthood had a positive effect on women's wisdom over forty years later, whereas the quality of the women's childhood or mature personality characteristics in early adulthood were unrelated to their level of wisdom in old age. By contrast, in a different longitudinal study of women by Helson and Srivastava (2002), certain personality characteristics at the age of 21 (low repression, tolerance of ambiguity, achievement via independence, psychological mindedness, and tolerance) and a sense of meaning in life and benevolence toward others at the age of 43 were positively associated with the women's degree of wisdom at the age of 61. However, the authors did not investigate if the women's social environment in childhood and early adulthood had an impact on their personality in early adulthood or their sense of meaning in life and benevolence in middle adulthood. It is likely, for example, that an affectionate, emotionally supportive, and stable family environment promotes the development of personality characteristics, such as tolerance, open-mindedness, sincerity, equanimity, and independence that facilitate the acquisition of wisdom (Ardel, 2000a). Hence, positive social conditions early in life might be conducive for the development of wisdom, but they are neither necessary nor sufficient.

Wisdom and Age

Sternberg (2005) notes five generalized views of the relationship between wisdom and age:

1. the "received" view, which suggests that wisdom develops as a spiritual awakening of sorts in old age;
2. the "fluid intelligence" view, which suggests that wisdom follows the same pattern of incline and decline as the ability to think in novel ways, increasing until early adulthood, then leveling off until starting to decline in late middle age;
3. the "crystallized intelligence" view, which suggests that wisdom follows the same path as crystallized intelligence, increasing strongly relatively early in life and continuing to increase at a lower rate until old age when disease might halt its development;
4. a combination of "fluid" and "crystallized" intelligence views, which suggests that the increase in crystallized intelligence might not be enough to offset the decline in fluid intelligence and, hence, prevent a decrease in wisdom with age; and
5. the view with little empirical support suggesting that wisdom declines monotonically throughout the life course beginning early in life.

Most wisdom researchers concur that wisdom does not automatically increase with age, as wisdom is relatively rare even among the older population (Ardel, 1997; Assmann, 1994; Baltes, 1993; Baltes & Freund, 2003; Baltes & Staudinger, 2000; Dittmann-Kohli & Baltes, 1990; Jordan, 2005; Staudinger, 1999; Sternberg, 1990b; Webster, 2003). Kekes (1983, p. 286) states that "one can be old and foolish, but a wise man is likely to be old, simply because such growth takes time." Hence, wisdom might increase with age,

particularly among people who actively pursue its development and successfully master Erikson's eight psychosocial developmental tasks (Ardelt, 2000b; Erikson, 1963, 1982; Erikson, Erikson, & Kivnick, 1986; Kramer, 1990; Moody, 1986; Taranto, 1989).

For example, the task of the reflective dimension of wisdom involves transcending one's subjectivity and projections. However, such transcendence is not easily achieved and can only be accomplished through determination and constancy (Kekes, 1983). A person who is determined to engage in constant self-examination and self-awareness is likely to view problems and events with increased objectivity rather than from an ego-centered point of view and without being overwhelmed by any negative emotions that the situation might have brought forth (Hart, 1987; Kunzmann & Baltes, 2003; Levitt, 1999). If a person feels insulted by someone, for instance, the first reaction is often a negative emotion, such as anger. Yet, if the person becomes immediately aware of the arising anger, the negative emotion will less likely become as strong as if the anger immediately overpowers the person's perception. This, in turn, will enable the person to see the whole situation more clearly, thoroughly, and objectively, which might lead to a better discernment of the other individual's motives and motivations and, most likely, to greater tolerance and forgiveness.

With time, determination, and constancy, taking such a perspective might eventually enable a person to transcend subjectivity and projections and to dissolve negative emotions (Pascual-Leone, 2000). This process of transcendence results in "a weakening of ego-centered characteristics, which leads to greater intuition and empathic understanding of Other, self, world, and nature as equally strong concerns. From this perspective, wisdom is the rarely attained, asymptotic state of normal human growth toward maturity" (Pascual-Leone, 1990, p. 272; emphasis in the original).

However, whether wisdom increases with age and at what point of the life course wisdom develops might also depend on the definition, operationalization, and measurement of wisdom. If wisdom is defined and operationalized as an expert knowledge system in the fundamental pragmatics of life and measured as wisdom-related knowledge, it is not surprising that age-related gains can be found during the period between adolescence and young adulthood when most members of modern societies first learn about their society's stock of accumulated expert knowledge in the fundamental pragmatics of life (Pasupathi, Staudinger, & Baltes, 2001; Richardson & Pasupathi, 2005). In adulthood, increases in this kind of knowledge appear to depend more on the chosen occupation than on age as occupations that require knowledge in the fundamental pragmatics of life, such as clinical psychologists, are at a clear advantage when it comes to solving hypothetical life problems in the area of life planning, life management, and life review (Jordan, 2005; Smith, Staudinger, & Baltes, 1994; Staudinger, 1999; Staudinger, Maciel, Smith, & Baltes, 1998; Staudinger, Smith, & Baltes, 1992).

Yet, if wisdom is defined as a combination of cognitive, reflective, and affective characteristics, its development can be considered a lifelong process (Ardelt, 2000b). Whereas wisdom might grow throughout the life course, the later years of life provide particular opportunities for the emergence of wisdom, as depicted, for example, in Erikson's stage theory of human development (Erikson, 1963, 1982; Erikson, Erikson, & Kivnick, 1986). Moreover, older people are more likely to have the time to engage in wisdom tasks that people at earlier stages of the life course are often too busy to pursue, such as developing a reflective mode of thinking, contemplating the meaning of life, engaging in a quest for self-fulfillment and spiritual advancement, and coming to terms with one's past as a preparation for physical and social decline and ultimately death (Ardelt, 2000b; Erikson, 1963, 1982; Jarvis, 1992; Mason, 1974; Moody, 1986; Shuldiner, 1992; Thornton,

1986). In fact, Takahashi and Overton (2002, 2005) found higher performances by older adults (mean age = 70 years) than by middle-aged adults (mean age = 45 years) on their wisdom measure, consisting of knowledge database and abstract reasoning (analytic wisdom mode) and reflective understanding, emotional empathy, and emotional regulation (synthetic wisdom mode).

Of course, cross-sectional studies are ultimately unable to address whether wisdom tends to increase with age. Although longitudinal studies on the development of wisdom are extremely rare, longitudinal research by Wink and Helson (1997) shows that practical wisdom (measured by self-reported cognitive, reflective, and mature adjectives from the Adjective Check List) tended to increase between the age of 27 and 52 and that clinical psychologists were more likely to gain higher levels of practical wisdom during that time period than were non-psychologists. Helson and Srivastava (2002) also report that a psychological or spiritual career path earlier in life was positively related to women's level of wisdom (measured as a latent variable with practical wisdom, transcendent wisdom, and scores on a wisdom task as the effect indicators) at age 61.

Coping with Crises and Hardships as a Pathway to Wisdom

Although crises and obstacles throughout life tend to be categorized as negative experiences, they ultimately might be of benefit if they stimulate the development of wisdom (Bluck & Glück, 2004; Pascual-Leone, 2000). Past studies indicate that people who experience negative life situations as an opportunity for psychosocial growth and who successfully overcome crises and obstacles in their lives are more likely to develop wisdom (Ardelt, 1998, 2005; Bianchi, 1994; Giesen & Datan, 1980). Elder (1991, p. 14) suggests that crises and obstacles in life might be perceived as a “form of apprenticeship .. in learning to cope with the inevitable losses of old age.” Similarly, Pascual-Leone (2000) states that “*ultimate limit situations* that cannot be undone and are nonetheless faced with consciousness and resolve—situations like death, illness, aging, irremediable oppression or loss, extreme poverty, rightful resistance or rebellion, guilt, absolute failure, danger, uncontrollable fear, etc., lead to the natural emergence of a transcendental self, if they do not destroy the person first” (p. 247; emphasis in the original). If crises and hardships can facilitate the emergence of wisdom, older people have a higher chance to be wise than younger ones because the number of life crises a person encounters tends to increase with age (Baltes & Smith, 1990; Kekes, 1983; Kramer, 1990; Taranto, 1989). Yet, it is equally true that some people are easily defeated by crises and might become depressed or desperate rather than wise when confronted with hardships. Hence, growth in wisdom might not depend on what people experience throughout life but on how they deal with life events (Holliday & Chandler, 1986).

During a crisis, routine behaviors and normal problem solving habits tend to be ineffective. To overcome a crisis a person is often forced to approach the problem from a novel angle. This change in perspective promotes reflective thinking and is likely to increase awareness of one's subjectivity and projections. The resolution of crises and obstacles in life often requires the elimination of certain projections, which tends to decrease ego-centeredness and increase maturity and wisdom (Kramer, 1990). For example, the experience of prolonged unemployment or a life-threatening illness might cause a person to question his or her sense of invulnerability (i.e., the projection that bad things only happen to other people who deserve it) which, in turn, might lead to increased compassion and empathy toward the less fortunate members of society. Such a reflection on priorities and values might also trigger a reevaluation of life's meaning,

which can prompt major life changes that ultimately might result in a more meaningful and satisfactory life (Bianchi, 1994; Lehr, 1978; Marris, 1986; Park, Cohen, & Murch, 1996; Taylor, Lichtman, & Wood, 1984).

Yet, many people might be unwilling to face the uncertainty and psychological disequilibrium that the process of reevaluating and reordering of life priorities and values entails and instead prefer to utilize their previous coping styles and behavior patterns when dealing with a crisis, even if it is maladaptive and leads to psychological deterioration rather than growth (Bursik, 1991). For example, in a study of families during the Great Depression, explosive and irritable men tended to become even more explosive and irritable if they were directly affected by Depression hardship (Elder, Caspi, & Nguyen, 1986). As past longitudinal research has shown, crises and hardships in life can have opposing effects on people's psychosocial growth. For example, adults who were rated as relatively high on the cognitive, reflective, and affective dimensions of wisdom in old age (in 1968/69) and who experienced economic hardship in early adulthood during the Great Depression tended to become psychologically healthier after the Depression years (Ardelt, 1998). By contrast, the psychological health of men and women who were characterized as relatively low on the cognitive, reflective, and affective dimensions of wisdom in old age and who experienced similar hardships during the Great Depression declined after the Depression years. The psychological health of respondents who were not affected by economic deprivation during the Great Depression remained relatively stable during and after the Great Depression, but respondents who were rated as relatively high in wisdom in old age tended to have better psychological health during those early adulthood years than respondents who were rated as relatively low in old age wisdom. Similarly, in a study of women, marital separation led to either growth or regression in ego development, depending on the women's level of adjustment one year after the separation or divorce (Bursik, 1991).

This research confirms that crises and hardships in a person's life are neither a necessary nor a sufficient condition for the development of wisdom. Rather, the path to wisdom requires a willingness to learn life's lessons and to be transformed in the process (Moody, 1986). Randall and Kenyon (2001, p. 99) note that "wisdom is not a matter of putting a Band-Aid over a problem, or even of coping, in a sense of merely getting by on the basis of a clever coping strategy. It involves the possibility for real growth and transformation." Without a commitment to psychological growth and personal transformation, crises and hardships might result in psychological disintegration rather than wisdom (Allport, 1961; Bianchi, 1994).

Yet, how exactly do wise individuals deal successfully with crises and obstacles in life? A recent exploratory study examined this question through an in-depth qualitative analysis of semi-structured interviews with six respondents between the ages of 59 and 85 who were interviewed about the most pleasant and unpleasant events in their lives (Ardelt, 2005). The respondents were chosen based on their quantitative scores on the 3D-WS (Ardelt, 2003) and the ratings they received from three independent judges on the cognitive, reflective, and affective dimensions of wisdom. Results showed that the three elders who scored and were rated relatively high on wisdom first mentally distanced themselves from the unpleasant event to relax, calm down, and not become overwhelmed by the situation. Second, they engaged in active coping that consisted of a mental reframing of the situation and of taking active mental and/or physical control of the crisis. Third, relatively wise elders were able to apply the lessons that life had taught them when they encountered crises and hardship. They learned from their experiences and, as a consequence, recognized and accepted life's unpredictability and uncertainty.

By contrast, the three older people who scored and were rated relatively low on wisdom did not try to deal with a crisis in an active manner and instead relied on passive coping strategies, such as passive acceptance and/or reliance on God, to deal with unpleasant events. As a consequence, they did not learn from their experiences, did not gain wisdom and insight into the nature of life, and remained extremely vulnerable and defenseless when experiencing severe hardship in life.

It should be noted, however, that success in coping with crises and hardships is not equivalent to wisdom. Rather, successful coping might initiate stress-related growth (Park, Cohen, & Murch, 1996; Park & Fenster, 2004), which can serve as a catalyst for the development of wisdom. The major difference between these three concepts is that successful coping with crises and hardships does not require the development of sympathy and compassion for others that characterizes the affective dimension of wisdom and that stress-related growth is only one possible pathway to wisdom.

The relatively wise elders in the above mentioned qualitative study learned to engage in active mental and physical coping during crises and obstacles in life, which prepared them to face the physical and social challenges of old age, such as declines in physical health and the loss of loved ones (Ardelt, 1998; Bianchi, 1994; Caspi & Elder, 1986; Giesen & Datan, 1980). The successful mastery of crises and hardships earlier in life led to stress-related growth (Park, 1998; Park & Fenster, 2004), which resulted in decreased ego-centeredness (Kramer, 1990) and gains in wisdom manifested by greater insight, understanding, and sympathy and compassion for others (Ardelt, 2005). However, both the qualitative and the earlier quantitative study demonstrated that crises and hardships are a possible pathway to wisdom only for people who successfully deal with negative life events (Ardelt, 1998, 2005; Erikson, 1964, 1980, 1982; Erikson, Erikson, & Kivnick, 1986; Pascual-Leone, 2000).

The Association between Wisdom, Integrity, and Life Satisfaction

We will explore the association between wisdom, integrity, and life satisfaction by first examining the relation between wisdom and integrity and then the relation between wisdom and life satisfaction in old age.

Relation between Wisdom and Integrity

The task that needs to be solved during Erikson's eighth stage of human development in old age is the acceptance of one's life and the acknowledgement of the "inalterability of the past" (Erikson, Erikson, & Kivnick, 1986, p. 56). If people are satisfied with the way they have lived and with what they have accomplished, ego-integrity can be achieved (Wrightman, 1988). On the other hand, psychological despair is likely to occur if people have major regrets in life, believe that life is generally unfair, and wish that they could live their life over again to change the past. Despair also emerges when people are unable to accept the deterioration of the body and the accompanying personal limitations. Those elders might despair over the loss of their physical mobility and the fading acuteness of their senses, and they might fear that they lose control over their lives and end up helpless and dependent on the mercy of others.

This does not mean that only individuals who have lived a successful life without any hardships, disappointments, and setbacks and who retain their physical health in old age can reach ego-integrity. On the contrary and as mentioned above, the successful resolution of crises and obstacles in life is one of the pathways to wisdom. People who have

achieved ego-integrity know that crises, obstacles, and setbacks are aspects of life that cannot be avoided, and they can acknowledge and accept that they, like everyone, are not perfect and that they might have made mistakes in the past (Deci, 1980). However, they do not brood over past misfortunes, mistakes, and missed opportunities, but instead learn from their mistakes and view negative events and their personal imperfections as opportunities for growth (Ardelt, 2005).

Individuals who are able to accept themselves and their whole life course can also better cope with the inevitable losses of old age and the approach of their own deaths. Although they are aware that their life course will soon come to its natural end, they are not bitter or remorseful because they feel that they have successfully completed the cycle and can, therefore, accept death in the same way that they accept life. Nicholson (1980) notes that “paradoxically, it is the person who believes that his or her life has been most worthwhile who seems to have least qualms about the prospect of it coming to an end” (p. 252).

According to Erikson (1963, 1982), the successful resolution of the eighth psychosocial crisis of ego-integrity versus despair in old age results in wisdom. Takahashi and Overton (2002, 2005) point out that Erikson’s model highlights the synthetic/transformational and synthetic/integrative features of wisdom. The synthetic/transformational feature of wisdom refers to reflective understanding and “an informed and detached concern with life” (Erikson, 1982, p. 61). The synthetic/integrative feature of wisdom is represented by ego-integrity, which can be described as “a sense of coherence and wholeness” (Erikson, Erikson, & Kivnick, 1986, p. 65). Yet, wisdom and ego integrity are not the same. Wisdom consists of cognitive, reflective, and affective elements and has the potential to increase throughout life (Ardelt, 2000b). Ego integrity, defined as an acceptance of one’s whole life course including the positive and the negative aspects of life, can ultimately only be obtained in old age. However, a person who has grown in wisdom throughout life is probably more likely to achieve ego integrity in old age. Wise elders experience ego-integrity, which includes an accepting attitude toward physical and social losses and the closeness of death. Taranto (1989) explains that “with acceptance, detachment, and humor about failing physical and social potential, aged [wise] people may still take charge of their lives and develop a new level of autonomy, because such an attitude makes one impervious to the vicissitudes of life” (p. 16). It is in this way that wise elders become role models for successful aging.

Most researchers in human development would concur with Erikson that a wise person is characterized by an integrated personality, exceptional maturity, and the ability to cope with life’s vicissitudes and the nearing of death (Ardelt, 2000a, 2000b; Assmann, 1994; Baltes & Freund, 2003; Bianchi, 1994; Clayton, 1982; Kekes, 1983, 1995; Kramer, 2000; Kunzmann & Baltes, 2003; Sternberg, 1990b, 1998; Vaillant, 1993, 2002). In fact, past studies have found empirical support for this statement. Wink and Helson (1997) demonstrated that ego development, insight, and autonomy at age 43 and psychological mindedness at age 52 was positively related to practical and transcendent wisdom at the age of 52. Generativity at age 43, Erikson’s seventh developmental task, was also associated with practical wisdom. This finding was confirmed in a different study by Wink and Dillon (2003) who reported a significant association between generativity (characterized as giving, protective, sympathetic, warm, socially perceptive, and having broad interests) and wisdom in late adulthood (late 60s to late 70s). Similarly, in a study of adults ranging in age from 22 to 78 years, ego integrity and generativity were positively and significantly correlated with Webster’s (2003) Self-Assessed Wisdom Scale (SAWS). In a later study of participants between the ages of 17 and 92 years, generativity was again

positively associated with the revised SAWS (Webster, 2007). Staudinger, Dörner, and Mickler (2005) found that orientation toward personal growth, purpose in life, ego-development, and benevolent values were positively associated with self-related wisdom. In research by Orwoll and Perlmutter (1990), wise nominees received significantly higher scores on ego-integrity than did creative nominees and were also more likely than creative nominees to support a generative perspective. Finally, among older adults between the age of 52 and 87, the Three-Dimensional Wisdom Scale (3D-WS) was positively correlated with mastery and purpose in life and negatively associated with death avoidance and death anxiety (Ardelt, 2003).

This empirical evidence lends support to the Eriksonian claim that wise elders are able to integrate and make sense of their past and present life and be content with what they have accomplished (Thomas, 1991; Wrightsman, 1988). They do not despair over the finitude of life or missed past opportunities but appear to be integrated into the natural flow of life through the succession of generations (Erikson, 1980, 1982; Erikson, Erikson, & Kivnick, 1986). It is in this way that wisdom can be described as “detached concern with life itself in the face of death itself” (Erikson, 1964, p. 133).

Relation between Wisdom and Life Satisfaction

Most people believe that wisdom is a good predictor of successful aging because it teaches “the art of living” or how to lead a life that is good for oneself, others, and society at large (Baltes & Freund, 2003; Baltes, Glueck, & Kunzmann, 2002; Baltes & Staudinger, 2000; Hart, 1987; Kekes, 1995; Kramer, 2000; Kunzmann & Baltes, 2003, 2005; Kupperman, 2005; Sternberg, 1998). If wise elders can avoid despair and instead achieve ego-integrity through the acceptance of their whole life, they should be satisfied with life even if objective conditions, such as their physical health or marital status, are less than ideal (Ardelt, 2000b; Assmann, 1994; Bianchi, 1994; Clayton, 1982; Kekes, 1995; Kramer, 2000; Sternberg, 1990b; Vaillant, 1993). The contentment that wise individuals feel does not depend on external circumstances, because they have learned how to be aware of and accept both the positive and negative aspects of reality as it is (Assmann, 1994; Blanchard-Fields & Norris, 1995; Gadamer, 1960; Hart, 1987; Maslow, 1970; Strijbos, 1995; Weinsheimer, 1985). Hence, wise elders can handle even the most difficult situations, such as the physical and social losses that accompany old age, with equanimity (Ardelt, 1997, 2000a; Clayton, 1982; Kramer, 2000).

Of course, older adults’ objective circumstances do have an impact on life satisfaction in old age. In a review of the literature, for example, Veenhoven (1991, 1994) found that people’s happiness depends on their objective living conditions and that individuals who experience negative life situations, such as poverty, illness, and loneliness, tend to be less happy than those who are spared from misfortune. Most people are unlikely to be satisfied with their life unless basic physical and psychological needs are met (Cantril, 1965; Ikels et al., 1995; Maslow, 1970; Oishi, Diener, & Lucas, 1999). However, the fulfillment of these basic needs is not a sufficient condition for life satisfaction (Diener & Biswas-Diener, 2002; Diener & Seligman, 2004). In fact, past studies indicate that people’s life satisfaction and subjective well-being are ultimately more affected by their cognitive perception and appraisal of events than by the events themselves (Colerick, 1985; George, 1990; George & Clipp, 1991; Larson, 1978; Lohmann, 1980; Rudinger & Thomae, 1990; Spreitzer & Snyder, 1974).

This might explain why wise elders who have learned to cope successfully with the

vicissitudes of life tend to be most satisfied in old age. For example, among older adults between the ages of 58 and 82 in 1968/69, the latent variable wisdom (measured by cognitive, reflective, and affective effect indicators) was a significantly stronger predictor of life satisfaction than objective circumstances, such as older adults' finances, physical health, socioeconomic status, physical environment, and social involvement (Ardelt, 1997, 2000a). In fact, the inclusion of wisdom in the analysis models generally reduced the effects of objective circumstances on life satisfaction. Furthermore and unlike life satisfaction, wisdom was unrelated to objective life conditions with the exception of physical health, which was positively correlated with wisdom. Similarly, wisdom (measured by the 3D-WS as a latent variable) was positively related to general well-being and subjective health and negatively related to depressive symptoms in a contemporary sample of older adults between the age of 52 and 87 (Ardelt, 2003). Interestingly, wisdom was unrelated to income (an objective life condition) but negatively correlated with feelings of economic pressure (the cognitive appraisal of the financial situation). Epistemic wisdom was also positively correlated with subjective well-being among young and older adults (Brugman, 2000). Finally, Takahashi and Overton (2002) report that the analytic and synthetic modes of wisdom were positively associated with life satisfaction in a study of American and Japanese middle-aged (age 36 to 59 with a mean age of 45 years) and older (age greater than 65 with a mean age of 70 years) adults.

It appears that wisdom and integrity are important but not necessary conditions for life satisfaction in old age. People can be satisfied if they live a life that is blessed by good fortune, physical and mental health, and friends (Rowe & Kahn, 1998). Yet, it is during times of crises and misfortune that wisdom is necessary for subjective well-being as it allows people to actively and effectively cope with negative life events (Ardelt, 2005). Moreover, the pursuit and realization of wisdom might be intrinsically rewarding and result in positive emotions, such as joy and serenity, through a transcendence of ego-centeredness (Csikszentmihalyi & Nakamura, 2005).

However, it should be noted that not all studies reveal a positive association between wisdom and life satisfaction. Both practical wisdom and transcendent wisdom, as measured by Wink and Helson (1997), were unrelated to life satisfaction or marital satisfaction at the age of 52. Similarly, wisdom-related knowledge was not significantly correlated with measures of autonomy, environmental mastery, positive relations, purpose in life, and self-acceptance from the Ryff Inventory of Psychological Well-Being (Ryff, 1989) among adults between the age of 19 and 87 with a mean age of 45 years (Staudinger, Lopez, & Baltes, 1997). Self-related wisdom was equally unrelated to life satisfaction and positive or negative emotions (Staudinger, Dörner, & Mickler, 2005).

It might be that a significant correlation between wisdom and life satisfaction only exists in advanced old age when social and physical losses become more prevalent and death is more than an abstract and remote possibility. However and as mentioned above, the results of Brugman's (2000) and Takahashi and Overton's (2002) research included a positive correlation between wisdom and subjective well-being among young and middle-aged adults. Hence, an alternative explanation for the contradictory results might be that the association between wisdom and subjective well-being depends in part on the operationalization and assessment of the variables under investigation. Because the measurement of wisdom and subjective well-being varies widely between studies, results might differ due to the researchers' underlying philosophy of what wisdom and subjective well-being really is and how those concepts can best be operationalized and assessed (Ardelt, 2004a, b).

Future Directions

In what directions is the future of wisdom research heading? Some researchers are examining social contexts that might foster the cultivation of wisdom. One such focus is education. Is it possible that wisdom can be taught in schools (Bassett, 2006; Reznitskaya & Sternberg, 2004; Schwartz & Power, 2000; Sternberg, 2001) or at the college level (Brown, 2004) so that people can reap its benefits throughout the life course and particularly in old age and at the end of life? An education that consists primarily of learning cognitive skills and knowledge, however, is insufficient for the development of wisdom (Jax, 2005; Sternberg, 2001). Wisdom is not equivalent to advanced intellectual understanding and knowledge (Ardelt, 2000b, 2004b; Chandler & Holliday, 1990; Clayton, 1982; Csikszentmihalyi & Rathunde, 1990; Kekes, 1983; Taranto, 1989) but "... transcends the intellect" (Naranjo, 1972, p. 225). In fact, "... wisdom is not simply one aspect of knowledge, but knowledge is only one aspect of wisdom" (Blanchard-Fields & Norris, 1995, p.105). As Jax (2005, p. 37) states, wisdom "... is the use of knowledge in light of spiritual purpose."

Table 25.2 summarizes the major differences between intellectual knowledge and wisdom in the domains of goals, approach, acquisition, effects on the knower, and relation to aging. A thorough discussion of this table can be found in Ardelt (2000b). However, it should be noted that the acquisition of wisdom, in contrast to intellectual knowledge, requires a profound personal transformation (Achenbaum & Orwoll, 1991; Ardelt, 2004b; Assmann, 1994; Kekes, 1983; Kupperman, 2005; Moody, 1986).

The problem is that purely intellectual learning does not stimulate the kind of personal transformation that is fundamental to the realization of wisdom. Thus, Jax (2005) and Sternberg (2001) suggest that the function of schools should not just be to instill knowledge in students but also to impart wise and appropriate uses for such knowledge. Sternberg (2001) lists four reasons why wisdom-related skills should be taught in schools. First, wisdom but not knowledge is related to subjective well-being (Ardelt, 1997, 2000a, 2003). Second, wisdom leads to mindful, deliberate judgments. Third, wisdom provides an avenue for the creation of a more harmonious world. And fourth, wisdom teaches students to become better parents, leaders, and members of their community. Although wisdom cannot be taught directly, Sternberg (2001) believes that schools can at least offer the scaffolding for the development of wisdom by teaching students how to think and not just what to think. Yet, if wisdom were to be included in the curriculum, some essential changes in the delivery of education would be required. For instance, to teach the acquisition of wisdom, teachers should be encouraged to pursue wisdom themselves so that they can serve as good role models for their students (Jax, 2005; Kupperman, 2005). Sternberg and colleagues (Reznitskaya & Sternberg, 2004; Sternberg, 2001) are currently working on a project to examine the effects of a wisdom-related curriculum on middle school students.

Brown (2004) suggests that wisdom can potentially be taught in colleges if they provide an environment that is conducive to the learning-from-life process, which consists of reflection, integration, and application. For growth in wisdom to take place, however, students need to have a well-developed and positive orientation to learning, a variety of experiences, and positive interactions with others. Colleges can play a crucial role in creating an orientation and environment that transform fragmented campuses into seamless learning environments (Brown, 2004).

Other researchers examine the role of spiritual practices in the development of wisdom throughout life. For example, Pascual-Leone (2000) suggests that meditation can serve as a path to wisdom as this practice leads to a reduction in ego-centeredness and

Table 25.2 Differences between Intellectual Knowledge and Wisdom

Domain	Intellectual Knowledge	Wisdom
Goals	<ul style="list-style-type: none"> • quantitative: accumulation of knowledge and information • discovery of new truths • descriptive knowledge • <i>how</i> to do certain things • mastery of the outside world through liberation from outside forces • change of reality • striving for certainty, regularity, and predictability to plan for the future • knowing how to deal with the expected 	<ul style="list-style-type: none"> • qualitative: deeper understanding of salient phenomena and events • rediscovery of the significance of old truths • interpretative knowledge • <i>should</i> I do certain things? • mastery of the inner world through liberation from inner forces • acceptance of reality • acceptance of uncertainty, irregularity, unpredictability, and impermanence • knowing how to deal with the unexpected and the unknown
Approach	<ul style="list-style-type: none"> • scientific • theoretical • abstract, detached • impersonal 	<ul style="list-style-type: none"> • spiritual • applied • concrete, involved • personal: intrapersonal and interpersonal
Acquisition	<ul style="list-style-type: none"> • intelligence/cognition • detached experience, i.e., studying books, listen to lectures, conducting experiments, objective observations 	<ul style="list-style-type: none"> • combination of cognition and self-reflection • personal life experiences together with self-awareness, determination, and constancy to transcend subjectivity and projections
Effects on the knower	<ul style="list-style-type: none"> • increased self-centeredness because one believes that one knows • concerned about individualistic and particularistic issues • pride and a feeling of superiority towards people with less intellectual knowledge 	<ul style="list-style-type: none"> • diminished self-centeredness because one knows that one does not know • concerned about collective and universal issues • sympathy and compassion for others
Relation to aging	<ul style="list-style-type: none"> • reversed u-shaped pattern • might become outdated and obsolete with time 	<ul style="list-style-type: none"> • potentially positive • important at all stages of the life course

Adapted from Ardel, M. (2000). Intellectual versus wisdom-related knowledge: The case for a different kind of learning in the later years of life. *Educational Gerontology: An International Journal of Research and Practice*, 26, 771–789.

ultimately to self-transcendence. He emphasizes that different paths are appropriate for different people but “any major modality/mode of human processing that can lead to *mindful* ritualization (and so to *attention-getting* but *repetitive* practices that can be partly *automatized* and *habituated*) should, *when coupled to a suitable philosophy*, yield a way to wisdom and transcendental self development” (pp. 252–253; emphasis in the original). In fact, practicing meditation was positively correlated with self-transcendent wisdom (Levenson, Jennings, Aldwin, & Shiraishi, 2005).

What directions should future wisdom research take? Longitudinal studies should assess the development of wisdom and its relation to subjective well-being throughout life to illuminate the effects of the pursuit of wisdom at each stage of the life course. Unfortunately, however, longitudinal studies tend to be rather costly and difficult to conduct (Vaillant, 2002). Yet, longitudinal studies are necessary to answer questions about the consequences of the development of wisdom: Are wise people more successful in life? Are they happier, healthier, and wealthier than those with comparatively little wisdom, or does the development of wisdom have its costs (Staudinger, Dörner, & Mickler, 2005)? Is transcending one's subjectivity and projections to perceive reality more clearly intrinsically rewarding and joyful (Csikszentmihalyi & Nakamura, 2005) or does it lead to the realization of the Buddha's First Noble Truth that life is suffering? However, Buddha did not only proclaim that life is suffering but also taught that the origin of suffering is attachment, that the cessation of suffering is attainable, and how to follow the path that leads to the cessation of all suffering (Nanamoli, 2001). Does this mean that wise people remain subjectively content and at peace during objectively negative life situations?

Future research should also address the role of wisdom in the workplace and public policy. Moral and ethical decisions in particular require wisdom so that people can live a life that is good for themselves, good for others, and good for the larger society (Kupperman, 2005). What could be done to emphasize the importance of wisdom in the workplace and public policy (Etheredge, 2005; Solomon, Marshall, & Gardner, 2005)? According to Etheredge (2005), wisdom in public policy or political wisdom is defined by good judgment and commitment to the well-being of all present and future members of society and also to members of other nations in international politics. Hence, wise policies require a balance sheet of effects (good, nil, evil) across populations and time. Wise policies can be characterized by eight values for human betterment: power, enlightenment (education and personal growth), wealth, physical and mental well-being, skill, affection, rectitude, and respect (Etheredge, 2005). Yet, at this point it is not clear how political wisdom could pragmatically be implemented to achieve a better world. Perhaps political wisdom begins with teaching wisdom in schools and universities to produce wise citizens who have the ability to understand different perspectives and contexts, can communicate well across cultures, honor the environment, are compassionate, understanding, and able to make wise decision, and strive to establish a just world, where no citizen is left behind (Jax, 2005; Sternberg, 2001).

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