

Wisdom as Expert Knowledge System: A Critical Review of a Contemporary Operationalization of an Ancient Concept

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Key Words

Cognition • Expert knowledge • Wisdom-related knowledge

Abstract

Paul B. Baltes and his colleagues, who are among the most prominent contemporary wisdom researchers, define wisdom as 'expert knowledge in the domain fundamental pragmatics of life.' By contrast, this article argues that the definition, operationalization, and measurement of wisdom should not be reduced to expertise and that the term *wisdom* should be reserved for *wise persons* rather than *expert knowledge*. In fact, evidence from their research confirms that Baltes et al. primarily assess *expert* or *intellectual knowledge* in the *wisdom domain* 'fundamental pragmatics of life' rather than how *wise* people are. As an alternative, a model of wisdom is presented that defines, operationalizes, and measures wisdom as an integration of cognitive, reflective, and affective personality characteristics.

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During the last two decades, researchers in the behavioral sciences have shown renewed interest in the ancient concept of wisdom [Chinen, 1984; Clayton & Birren, 1980; Dittmann-Kohli & Baltes, 1990; Sternberg, 1990b], which has historically been considered the pinnacle of human development [Baltes & Staudinger, 2000]. A possible reason for this resurrection is a new emphasis on positive psychology [Seligman & Csikszentmihalyi, 2000]. Wise people presumably possess many positive qualities, such as a mature and integrated personality, superior judgment skills in difficult life matters, and the ability to cope with the vicissitudes of life [Assmann, 1994; Bianchi, 1994; Clayton, 1982; Dittmann-Kohli & Baltes, 1990; Kekes, 1983, 1995; Kramer, 2000; Sternberg, 1990b, 1998; Vaillant, 1993].

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Furthermore, unlike intelligence, wisdom is not believed to decline with advancing age. On the contrary, traditionally wisdom has always been associated with the elders of a society [Assmann, 1994; Baltes & Smith, 1990; Holliday & Chandler, 1986; Kekes, 1983].

However, a generally agreed-upon definition of wisdom does not yet exist. The familiarity of most wisdom researchers with cognitive development but their relatively limited experience with wisdom increases the chance to confound both concepts [Chandler & Holliday, 1990]. The purpose of this article is to review the definition, operationalization, and measurement of wisdom as presented by the Max Planck Institute (MPI) group in Berlin, perhaps the most prominent contemporary research group on wisdom to date. During the last decade, Baltes and colleagues have developed an impressive empirical program dedicated to the study of wisdom that is the most extensive and systematic empirical work on wisdom in the field to date [e.g., Baltes, 1991, 1993; Baltes & Smith, 1990; Baltes, Smith, & Staudinger, 1992; Baltes, Smith, Staudinger, & Sowarka, 1990; Baltes & Staudinger, 1993, 2000; Baltes, Staudinger, Maercker, & Smith, 1995; Dittmann-Kohli & Baltes, 1990; Kunzmann & Baltes, 2003; Pasupathi & Staudinger, 2001; Pasupathi, Staudinger, & Baltes, 2001; Smith & Baltes, 1990; Smith, Staudinger, & Baltes, 1994; Staudinger & Baltes, 1996; Staudinger, Smith, & Baltes, 1992]. Although Baltes and colleagues need to be commended as the first researchers to undertake the difficult task of attempting to assess wisdom through a standardized procedure, I argue that their definition, operationalization, and measurement of wisdom primarily assess expert or intellectual *knowledge* in the *wisdom domain* fundamental pragmatics of life [e.g., Smith & Baltes, 1990] rather than *wisdom* per se.

This article is not intended as a critique of Baltes and colleagues' theoretical wisdom work. Their theoretical writings on wisdom tend to be more comprehensive and include, apart from expert knowledge, also emotions, motivations, and virtues as aspects of wisdom [Baltes & Freund, 2003; Baltes, Glueck, & Kunzmann, 2002; Baltes & Staudinger, 2000; Kunzmann & Baltes, 2003]. Rather, the present article is a critical review of the Berlin group's definition, operationalization, and particularly measurement of wisdom. As an alternative, I present a model of wisdom that defines, operationalizes, and measures wisdom as an integration of cognitive, reflective, and affective personality characteristics.

The Concept of Wisdom

Definition and Operationalization of Wisdom

The Berlin group uses an explicit rather than an implicit theory of wisdom to define the concept. Whereas implicit theories of wisdom are based on the beliefs and mental representations that laypersons have about wisdom and wise people [Baltes, Glueck, & Kunzmann, 2002; Kunzmann & Baltes, 2003], 'explicit theories are constructions of (supposedly) expert theorists and researchers rather than of laypeople' [Sternberg, 1998, p. 349]. Baltes and colleagues approach wisdom as a form of 'advanced cognitive functioning' and 'intellectual growth' [Dittmann-Kohli & Baltes, 1990, p. 55]. They '... define *wisdom* as expert knowledge in the fundamental pragmatics of life that permits exceptional insight, judgment, and ad-

vice about complex and uncertain matters' [Pasupathi, Staudinger, & Baltes, 2001, p. 351, emphasis in the original] and '... as an expertise in the conduct and meaning of life' [Baltes & Staudinger, 2000, p. 124]. The fundamental pragmatics of life refer to questions about life planning, life management, and life review [e.g., Baltes & Smith, 1990; Baltes, Staudinger, Maercker, & Smith, 1995; Dittmann-Kohli & Baltes, 1990; Smith & Baltes, 1990; Smith, Staudinger, & Baltes, 1994]. To answer those questions one needs knowledge that is descriptive and procedural, efficient, differentiated, integrated, and well organized [Dittmann-Kohli & Baltes, 1990].

Baltes and colleagues' definition and operationalization of wisdom derives from their distinction between the cognitive mechanics and the cognitive pragmatics of the mind [e.g., Baltes, 1993; Baltes & Staudinger, 1993; Kunzmann & Baltes, 2003; Smith, Staudinger, & Baltes, 1994], which corresponds to the well-known difference between 'fluid' and 'crystallized' intelligence [Cattell, 1971; Horn, 1970]. Cognitive mechanics refer to the biological 'hardware' of the mind or the 'neurophysiological architecture of the brain' [Baltes, 1993, p. 582], which inevitably deteriorate with advanced age [Baltes, 1993; Baltes & Staudinger, 1993; Charney & Bosman, 1990; Salthouse, 1991]. Cognitive pragmatics, by contrast, represent the cultural '... "software" of the mind; they reflect the kind of knowledge and information that cultures offer as bodies of factual and procedural knowledge about the world and human affairs' [Baltes & Staudinger, 1993, p. 76]. These cognitive pragmatics have the potential to increase with age [Glendenning, 1995; Horn, 1970], although they might be influenced by a general cognitive decline in advanced old age [Baltes, 1993; Baltes, Staudinger, Maercker, & Smith, 1995; Charney & Bosman, 1990].

Unlike other wisdom researchers [e.g., Ardelt, 1997, 2000a; Clayton & Birren, 1980; Helson & Srivastava, 2002; Kekes, 1983, 1995; Levitt, 1999; Orwoll & Perlmutter, 1990; Webster, 2003; Wink & Helson, 1997], the Berlin group does not conceptualize wisdom as a personality characteristic or a combination of personality qualities but as an expert knowledge system, which belongs to the cognitive pragmatics of the mind [Kunzmann & Baltes, 2003]. The focus of the Berlin group's work is on *wisdom-related knowledge* rather than *wise persons* [Baltes & Staudinger, 2000; Kunzmann & Baltes, 2003]. They admit 'if the goal is to define and study wise persons rather than wisdom per se, this definition of wisdom as knowledge can be seen only as a first step' [Kunzmann & Baltes, 2003, p. 334]. Baltes and colleagues study individuals only as carriers of wisdom-related knowledge. One of the Berlin group's '... central theoretical postures is that wisdom is a collectively anchored product and that individuals by themselves are only "weak" carriers of wisdom' [Baltes & Staudinger, 2000, p. 130].

To assume that wisdom is 'a cultural and collective product' [Baltes & Staudinger, 2000, p. 127] and that '... the body of knowledge and skills related to wisdom ... [are] too large and complex to be stored in one individual's mind' [Staudinger & Baltes, 1996, p. 748] implies that wisdom exists independently of wise individuals, for example, '... in written materials such as the Holy Bible or legal texts' [Kunzmann & Baltes, 2003, p. 334]. Moreover, it means that a person cannot be wiser than the 'collectively anchored product' of wisdom. If this is correct, individuals who are presumed to be exceptionally wise by many people, such as Jesus of Nazareth and Gautama the Buddha, could not have been wiser than the collectively accumulated wisdom-related knowledge of their time. Yet, Buddha,

for example, discovered the path to enlightenment (which also is often considered the path to ultimate wisdom) on his own after studying under the most advanced and wisest teachers of his time. Although he progressed considerably in wisdom under their tutelage, ultimately Siddhartha Gautama was not satisfied with the stage of wisdom that the culture and the collective of sage teachers had to offer. Hence, he left his teachers to discover the path to enlightenment, which was not known in his culture before his enlightenment experience. In fact, the title Buddha refers to a person who (re-)discovers the path to enlightenment and ultimate wisdom [Nanamoli, 2001]. So by definition, a Buddha possesses more wisdom than the accumulated wisdom of the collective.

I argue that wisdom cannot exist independently of individuals [Ardelt, 2000b; Assmann, 1994; Labouvie-Vief, 1990]. If this is true, then wisdom itself cannot be preserved outside of individuals. Its distribution in society depends on the personal development of the people who make up society and not on the development of a cultural 'software.' The moment one tries to preserve wisdom (e.g., by writing it down), it loses its connection to a concrete person and transforms into intellectual (theoretical) knowledge. I propose that even the most profound 'wisdom literature' remains intellectual or theoretical knowledge until its inherent wisdom is realized by a person. If it were indeed wisdom per se that could be found in the wisdom literature, two people with similar intellectual capabilities (hardware) who read the same wisdom text (software) would need to grow equally in wisdom. Whereas this might be true for (intellectual or theoretical) knowledge, I doubt that it is true for wisdom.

Intellectual or theoretical knowledge is knowledge that is understood only at the intellectual level, whereas wisdom is understood at the experiential level. It is only when an individual *realizes* (i.e., experiences) the truth of this preserved knowledge that the knowledge is re-transformed into wisdom and makes the person wise(r). If the truth is only understood intellectually, it remains intellectual (theoretical) knowledge and does not lead to a personality transformation of the individual.

Even if it were true that wisdom per se could be found in books, how could this wisdom-related knowledge help individuals to live a life that is beneficial for themselves, others, and society at large [Baltes & Freund, 2003; Baltes, Glueck, & Kunzmann, 2002; Kunzmann & Baltes, 2003] without first transforming those individuals into wise(r) persons? According to Moody [1986, p. 142], 'one can *have* theoretical knowledge without any corresponding transformation of one's personal being. But one cannot "have" wisdom without *being* wise' (emphasis in the original). In line with this argument, I propose that the term 'wisdom' should be reserved for the wisdom of people. Defined in this way, wisdom belongs neither to the cognitive mechanics nor to the cognitive pragmatics of the mind. It is neither 'fluid' nor 'crystallized' intelligence [Moody, 1986]. Wisdom goes beyond and '... transcends the intellect' [Naranjo, 1972, p. 225]. Mere intellectual understanding and knowledge are not enough for the acquisition of wisdom [Ardelt, 2000b; Clayton, 1982; Holliday & Chandler, 1986]. I agree with Blanchard-Fields and Norris [1995, p. 105] who argue that '... wisdom is not simply one aspect of knowledge, but knowledge is only one aspect of wisdom.' Wisdom needs to be realized through a reflection on personal experiences that transform the individual in the process [Achenbaum & Orwoll, 1991; Ardelt, 2000b; Assmann, 1994; Kekes, 1983; Moody, 1986].

Measurement of Wisdom

To measure wisdom, Baltes and colleagues ask respondents to find solutions to hypothetical life review tasks and life-planning problems [Baltes, Staudinger, Maercker, & Smith, 1995; Smith & Baltes, 1990; Smith, Staudinger & Baltes, 1994; Staudinger, Smith, & Baltes, 1992]. One life-planning problem reads as follows:

Joyce, a widow aged 60 years, recently completed a degree in business management and opened her own business. She has been looking forward to this new challenge. However, she has just heard that her son has been left with two small children to care for. Joyce is considering the following options: She could plan to give up her business and live with her son, or she could plan to arrange for financial assistance for her son to cover child-care costs.

Formulate a plan that details what Joyce should do and should consider in the next 3 to 5 years. What extra pieces of information are needed? [Baltes, Staudinger, Maercker, & Smith, 1995, p. 159]

Respondents are trained in a ‘think aloud’ technique to tell the interviewer everything that comes to mind when pondering the problem [Smith & Baltes, 1990]. The recorded and transcribed protocols are then rated by several trained coders on a 7-point scale according to five wisdom criteria: (1) rich factual knowledge ‘... about such topics as human nature, life-long development, variations in developmental processes and outcomes, interpersonal relations, social norms, critical events in life and their possible constellations, as well as knowledge about the coordination of the well-being of oneself and that of others’; (2) rich procedural knowledge about ‘... strategies and heuristics for dealing with the meaning and conduct of life ...’; (3) life span contextualism, e.g., ‘... knowledge that considers the many themes and contexts of life (e.g., education, family, work, friends, leisure, the public good of society, etc.), their interrelations and cultural – i.e., historical, social, temporal, and idiographic – variations ...’; (4) value relativism, that is, ‘... the acknowledgement of and tolerance for value differences and the relativity of the values held by individuals and society’ while simultaneously recognizing certain universal values that promote the common and individual good; and (5) awareness and management of the inherent uncertainty of life [Baltes & Staudinger, 2000, p. 125f.]. A protocol is only considered ‘wise’ if it receives a rating of greater than 5 on each of the five criteria [Baltes & Staudinger, 2000].

One notices that the Berlin group specifically does *not* ask respondents to evaluate their own life or how they have solved their own life-planning problems or those of family and friends. The reason is their interest ‘... in subjects’ general knowledge of the domain, fundamental pragmatics of life, rather than in the way they have applied this knowledge to themselves’ [Smith & Baltes, 1990, p. 495].

This approach, however, is problematic if one intends to measure wisdom. As Baltes and colleagues have stated [e.g., Baltes & Staudinger, 2000; Dittmann-Kohli & Baltes, 1990], ‘... wisdom is inherently an intra- and interpersonal concept in that it considers problems concerning life meaning and conduct from various perspectives including the self, other people, or society at large ... Wisdom is oriented toward a common good, in which conceptions of individual and collective well-being are tied together, and it involves the insight that one cannot exist without the

other' [Kunzmann & Baltes, 2003, p. 334f.]. This implies that wisdom is personal, concrete, applied, and involved rather than theoretical, abstract, and detached [Blanchard-Fields & Norris, 1995; Clayton, 1982; Clayton & Birren, 1980; Holliday & Chandler, 1986; Kramer, 1990; Strijbos, 1995; Taranto, 1989]. Hence, the use of general hypothetical situations and fictional characters might not be the best approach to measure wisdom. The answer of a wise respondent to one of the Berlin group's wisdom tasks simply might be 'It depends!,' namely, on the specific conditions, personalities, priorities, and commitments of the people involved [Randall & Kenyon, 2001; Sternberg, 1998; Strijbos, 1995]. Without that information, a wise person might give only brief or general answers and, as a result, earn relatively low scores on the five Berlin wisdom criteria. Therefore I propose that the Berlin group's general hypothetical problems are unlikely to measure wisdom but rather assess *intellectual* knowledge or expertise in life review [Staudinger, Smith, & Baltes, 1992], life planning [Smith & Baltes, 1990], or life management [Staudinger, Maciel, Smith, & Baltes, 1998].

According to Kekes [1983], wisdom requires interpretative rather than descriptive knowledge. Descriptive knowledge refers to a description of facts (e.g., 'life is unpredictable'), whereas interpretative knowledge consists of a rediscovery of the significance of generally known facts for our own lives and the lives of others (e.g., 'What does it mean that I have no control over my own and other people's future? How do I need to lead my life and select my priorities and commitments in light of the fact that life is unpredictable?'). 'Interpretative knowledge,' as Kekes [1983] uses this term, does not refer to an intellectual interpretation of facts but to a paradigm shift in knowing. Through reflection and self-examination, interpretative knowledge leads to a deeper understanding of salient phenomena and events [Assmann, 1994; Holliday & Chandler, 1986] and transforms the individual in the process [Kekes, 1983]. Hence, wisdom cannot be assessed by the *quantity* and accumulation of knowledge, as Baltes and colleagues seem to suggest [e.g., Baltes & Staudinger, 2000; Smith & Baltes, 1990], but rather by the *quality* and depth of a person's understanding [Kekes, 1983; Moody, 1986; Sternberg, 1990a].

Wisdom does not simply refer to a 'state of knowledge' [Baltes, Smith, Staudinger, & Sowarka, 1990] but to a *process* or *state of being* [Blanchard-Fields & Norris, 1995; Fromm, 1976]. Wisdom cannot necessarily be found in what a person says but is expressed through an individual's personality and conduct in life [Clayton & Birren, 1980; Strijbos, 1995]. A wise statement alone is not an indication of wisdom. As Kekes [1983, p. 286] remarks:

A fool can learn to say all the things a wise man says, and to say them on the same occasions. The difference between them is that the wise man is prompted to say what he does, because he recognizes the significance of human limitations and possibilities, because he is guided in his actions by their significance, and because he is able to exercise good judgment in hard cases, while the fool is mouthing clichés.

In fact, wisdom is not necessarily conveyed through the content of a statement but through the way the statement is delivered. For example, Hira and Faulkender [1997] videotaped four actors (stratified by age and gender) who read identical previously scored transcribed responses to four of the Berlin group's wisdom tasks, which had been provided by Smith and Baltes. They then asked undergraduates to rate the videotapes according to Smith and Baltes' [1990] summative criterion of

wisdom. The purpose of the study was to examine whether wisdom ratings are influenced by the age and the gender of the person who is evaluated. Results showed no significant main effects of age and gender on the wisdom ratings. Instead, a significant interaction effect between the age and the gender of the actors was discovered. The older man and the younger woman received significantly higher wisdom scores than the younger man and the older woman. Although the *content* of the responses was identical, Hira and Faulkender [1997, p. 98] concluded that wisdom ratings appeared to vary according to the performance of the actors and that ‘... not only what is said, but also the manner in which it is said ... influences our perception of wisdom.’ Hence, to measure wisdom in the way the Berlin group attempts to do might be practically impossible, because raters would have to access the ‘spirit’ in which the knowledge is offered [Kekes, 1983].

I argue that wisdom should be measured by assessing the wisdom of people rather than the ‘wisdom’ of their knowledge. As suggested by Baltes and Staudinger [2000, p. 127], one step in the right direction might be to add the motivational-emotional aspect of wisdom as another wisdom criterion to emphasize ‘... that wisdom is (a) intended for the well-being of oneself and others and (b) involves an effective coordination of mind and virtue.’ Furthermore, I would propose to replace the hypothetical wisdom tasks with questions about the respondents’ life planning, life management, life review, and/or life problems. For example, respondents might be asked to tell the interviewer about a difficult life problem (either their own or that of family or friends) that they recently encountered and what they did to solve that problem. Answers could then be scored according to the appropriate wisdom criteria, which, ultimately, will depend on the wisdom philosophy of the researchers.

Validation of the Operationalization and Measurement of Wisdom

Performance of Clinical Psychologists

If it is true that the Berlin MPI group measures intellectual (expert) knowledge in the fundamental pragmatics of life rather than how wise people are, we would expect that individuals who have received intellectual training in those areas should attain a higher score on all five ‘wisdom’ criteria than persons with different occupational backgrounds. This is exactly what Baltes and colleagues found in their research. On average, clinical psychologists scored higher on all five criteria than comparable professionals who were employed in fields other than human services [Baltes, Staudinger, Maercker, & Smith, 1995; Smith, Staudinger, & Baltes, 1994; Staudinger, Maciel, Smith, & Baltes, 1998; Staudinger, Smith, & Baltes, 1992]. As can be expected from the previous discussion, the differences between the two groups were even more pronounced in the areas of factual and procedural knowledge.

For the Berlin group, the better performance of clinical psychologists compared to the group of control professionals suggests that ‘... occupational settings or social positions that involve both structured training and continued, varied, and possibly graded experience in thinking about difficult personal and life problems ... facilitate access to and acquisition of this knowledge system, both by selection into

these professions and by training' [Smith, Staudinger, & Baltes, 1994, p. 991]. Although this is probably true for intellectual and expert knowledge, the validity of this statement for wisdom is questionable. It is certainly true that clinical psychologists '... receive training, guided practice (mentorship), and massed experience in fundamental issues of life and the human condition ...' [Staudinger, Maciel, Smith, & Baltes, 1998, p. 14], but this professional experience is relatively detached and does not necessarily concern their own personal lives. In fact, some members of the helping professions are not able to overcome personal life problems despite their expert knowledge in the fundamental pragmatics of life, a phenomenon that Schmidbauer [1977] has coined the 'helpless helper' syndrome. Counselors or therapists who are regarded as having wisdom are typically individuals who empathetically understand the problem of their clients and who convey sympathy and compassion for their plight [Hanna & Ottens, 1995], not because they have read many books and attended lectures on these topics but because they have *experienced and accepted* the positive as well as the negative aspects of the human existence for themselves [Bianchi, 1994]. Only persons who can apply their knowledge in the 'fundamental pragmatics of life' to themselves and follow their own sage advice should be considered to possess wisdom [Strijbos, 1995].

For example, a meta-analysis on the effectiveness of counselors by Hattie, Sharpley, and Rogers [1984] revealed that professional therapists, such as psychologists, psychiatrists, and social workers, were not more successful in their treatment efforts than paraprofessionals. As Hanna and Ottens [1995] point out, this might suggest that paraprofessionals have approximately as much wisdom as professional therapists '... since wisdom is rarely taught in courses of any kind ...' (p. 200).

To test if it is wisdom rather than intellectual knowledge that distinguishes clinical psychologists from other professionals or paraprofessionals, Baltes and colleagues could try to interview paraprofessionals who are nominated as wise by their clients but had less formal education and training in the fundamental pragmatics of life than clinical psychologists. The Berlin group could then compare the 'wisdom' performances of those paraprofessionals to the performances of clinical psychologists that were not explicitly nominated as wise by their patients. If it is wisdom rather than intellectual knowledge that the five Berlin wisdom criteria assess, the 'wise' paraprofessionals should receive higher scores on the wisdom criteria than the group of clinical psychologists.

Performance Comparisons between Older Clinical Psychologists and Wisdom Nominees

To validate the Berlin group's operationalization of wisdom and to counter the argument that it '... may be biased toward psychological concepts and methods' [Baltes, Staudinger, Maercker, & Smith, 1995, p. 156], Baltes and colleagues designed a study that compared the performance of wisdom nominees on the Berlin group's wisdom tasks with that of older clinical psychologists. The wisdom nominees consisted of '... a group of distinguished citizens ... who were nominated as being close to the ideal of a wise person' [Baltes, Staudinger, Maercker, & Smith, 1995, p. 155] but did not include any clinical psychologists.

Twenty-one top journalists with diverse political orientations from three types of media outlets (newspaper, radio, and television) in West Berlin were asked to nominate publicly active citizens in West Berlin who might be considered 'wise' or 'life experienced.'¹ Baltes, Staudinger, Maercker, and Smith [1995] proposed that the selected 22 wisdom nominees whose age ranged from 41 to 88 years would do as well in the above cited life-planning task and an existential life management problem as older clinical psychologists. That assumption alone is problematic. If the Berlin group's five 'wisdom' criteria do indeed measure wisdom, wisdom nominees should be rated *higher*, not the same as clinical psychologists, on those criteria.

To test their hypothesis, Baltes and colleagues excluded all nominees above the age of 79 from their analyses because they suspected and found '... negative age differences [presumably] due to the loss of cognitive functioning that is often observed in octogenarians' [Baltes, Staudinger, Maercker, & Smith, 1995, p. 160, footnote 1].² In the restricted sample of 14 wisdom nominees (age range: 41–79) and 15 older clinical psychologists (age range: 60–76), Baltes and colleagues found no significant difference in the 'wisdom' scores of those two groups [Baltes, Staudinger, Maercker, & Smith, 1995]. Given those results and considering that the 8 excluded wisdom nominees scored on average much lower than the remaining 14, one can only guess that older clinical psychologists would have outperformed the group of wisdom nominees if the whole group had been included in the analyses.

In a later study, Baltes and colleagues included 4 of the 8 as wise nominated octogenarians in the analyses but excluded all those wisdom nominees who either showed age-related cognitive decline or were not sufficiently motivated to participate in the study [Maercker, Böhmig-Krumhaar, & Staudinger, 1998]. Of course, one possibility is that the 'not sufficiently motivated' wisdom nominees (which included two nominees below the age of 80) might have recognized the futility of giving sage advice to a fictitious character in a general hypothetical situation, which in itself might be a sign of wisdom. The new group of 16 wisdom nominees (age range: 41–88) was then compared to a group of 16 older clinical psychologists (age range: 60–84). None of the older clinical psychologists, however, was excluded from the study. After the selective exclusion and inclusion of wisdom nominees, the group of wisdom nominees received significantly higher average 'wisdom' scores (as measured by the Berlin group) in the area of life span contextualism and value relativism than the group of older psychologists. However, the difference between the overall 'wisdom' scores between the groups of wisdom nominees and older clinical psychologists remained statistically insignificant [Maercker, Böhmig-Krumhaar, & Staudinger, 1998].

¹ Only those nominees were selected for the study who (a) received above-average ratings by the nominators on two 7-point scales, life knowledge (mean > 4.9) and wisdom (mean > 3.9), and (b) did not receive a rating of 1 or 2 by any nominator. The final group of 22 wisdom nominees had an average nominator wisdom score of 5.19 (SD = 0.72).

² Indeed, the overall 'wisdom' scores of the 8 wisdom nominees between the age of 80 and 88, as measured by the Berlin group, ranged from about 1.2 to 3.1 on a 7-point scale [Baltes, Staudinger, Maercker, & Smith, 1995, p. 161, figure 1]. Note that the nominators did not express the same reservation since none of the nominees received an average wisdom score below 3.9 from the nominators.

I do not find the Berlin group's rationale for excluding the octogenarians from the analyses in the first study to be valid for research on wisdom. Even if '... the likelihood of cognitive decline increases considerably after age 75' [Baltes, Staudinger, Maercker, & Smith, 1995, p. 157], this decline does not need to affect a person's level of wisdom. Admittedly, such a decline might have a negative impact on the cognitive pragmatics of the mind or the available stock of crystallized knowledge that people have to offer. However, if wisdom is more than cognitive knowledge and intellectual understanding and if, as some researchers [e.g., Ardelt, 2000b; Jarvis, 1992; Kekes, 1983; Kramer, 1990; Levitt, 1999] believe, the acquisition of wisdom is primarily influenced by a person's willingness to remain open to all kinds of experiences and to engage in reflection, self-examination, and self-awareness, wisdom has the *potential* to increase even in advanced old age. As long as cognitive deterioration does not become pathological as in Alzheimer's disease, wisdom should be relatively independent of an age-related decline in cognitive abilities alone.

A selective inclusion and exclusion of wisdom nominees based on their performances on the Berlin group's wisdom tasks is also difficult to justify, particularly after they received relatively high wisdom and life knowledge ratings by a knowledgeable group of nominators. To compare wisdom nominees and older clinical psychologists, however, it might be advisable to use the same age range for both groups, which would restrict the age range of the wisdom nominees to age 60 and above. According to figure 1 in Baltes, Staudinger, Maercker, and Smith [1995], this procedure would exclude 4 of the 22 wisdom nominees from the analyses. The remaining 18 wisdom nominees should then be compared to the group of older clinical psychologists to test if wisdom nominees tend to receive higher 'wisdom' scores on a life-planning task and an existential life management problem than clinical psychologists.

Unfortunately, the correlation between the nominees' 'wisdom' scores, as measured by Baltes and colleagues, and the ratings they received from the nominators is not published. Depending on the publication, the 'wisdom' scores of wisdom nominees on the Berlin group's wisdom tasks ranged from about 1.2 to 4.8 [Baltes, Staudinger, Maercker, & Smith, 1995] or from about 1.5 to 5.1 [Maercker, Böhmig-Krumhaar, & Staudinger, 1998], with only 3 of the 22 nominees scoring above the midpoint (4) of the 7-point scale.³ According to the Berlin group's own definition, a 'wise' performance requires a rating of greater than 5 on a 7-point scale for each of the five wisdom criteria [Baltes & Staudinger, 2000]. Following this standard, none of the wisdom nominees produced a 'wise' protocol.

If it is true that the Berlin group's '... conception of wisdom shows a substantial amount of correspondence with naive theories of wisdom' [Baltes & Staudinger, 1993, p. 79], the correspondence between the wisdom scores of the raters and those of the nominators should be much higher. Even if Baltes and colleagues are primarily interested in the assessment of wisdom-related knowledge rather than the wisdom of people, one would expect that wisdom-related knowledge is a

³ The arithmetic mean for the 22 nominees as derived from Baltes, Staudinger, Maercker, and Smith's [1995] figure 1 was approximately 2.6. By comparison, the average wisdom score given by the nominators was 5.2.

prerequisite for being wise [Kunzmann & Baltes, 2003] and that wise people tend to receive high scores on a measure of wisdom-related knowledge. That this is not the case is a further indication that the Berlin group's wisdom scale might measure something else than what a layperson (e.g., a top journalist) would recognize as wisdom.

The Social-Collaborative Aspect of Wisdom

According to Baltes and Staudinger [2000, p. 127], '... wisdom is fundamentally a cultural and collective product in which individuals participate. Individuals are only some of the carriers and outcomes of wisdom.' To investigate the collective aspect of wisdom-related knowledge, the performance of respondents in wisdom-related tasks (described above) was compared in five experimental conditions [Staudinger & Baltes, 1996]. Participants either (1) discussed the wisdom-related task with a significant other and thought individually about the problem for some time before responding (external dialogue plus), (2) thought how people whose advice they value might solve the problem before answering (internal dialogue), (3) discussed the problem with a significant other but did not think about it individually before responding (external dialogue), (4) thought about the problem for some time before answering (individual thinking time), or (5) responded to the task without any external or internal dialogue or thinking time (standard condition).

The external-dialogue condition tested the effects of collective knowledge (interaction of minds) on wisdom-related performance, whereas the individual-thinking-time condition asked participants to reflect on the problem individually. The external-dialogue-plus and the internal-dialogue conditions required an interaction of minds as well as individual reflective thinking. To test the hypothesis '... that wisdom is a collectively anchored product and that individuals by themselves are only "weak" carriers of wisdom' [Baltes & Staudinger, 2000, p. 130], participants in the external-dialogue condition, in which natural dyads collectively tried to come up with the best solution to the wisdom-related task, should have outperformed participants in the individual-thinking-time condition, in which respondents were on their own. Similarly, if '... the body of knowledge and skills related to wisdom ... [are] assumed to be too large and complex to be stored in one individual's mind' [Staudinger & Baltes, 1996, p. 748], participants in the external-dialogue-plus condition should have achieved higher 'wisdom' scores than participants in the internal-dialogue condition. Although respondents in the internal-dialogue condition internally consulted with another person, the body of knowledge that was retrieved had been stored in the individual's mind.

Contrary to those expectations, Staudinger and Baltes [1996] found that respondents in the individual-thinking time condition tended to outperform respondents in the external-dialogue condition, which is the opposite of what would be predicted if wisdom were a collectively anchored product. In fact, respondents in the external-dialogue condition tended to score as high as did respondents in the standard experimental condition. Moreover, participants in the external-dialogue-plus and the internal-dialogue conditions performed, on average, equally well. The combined average wisdom score of participants in the external-dialogue-plus and the internal-dialogue conditions was slightly higher than the average wisdom score

of participants in the individual-thinking-time condition, but only at the 10% level of significance.

First, I am not convinced that performance increases due to the consultation with a trusted significant other or an internal dialogue with an admired person would show that wisdom is ‘a cultural and collective product.’ Consulting with a significant other or thinking about an individual whom one admires and whom one considers as wise is not necessarily the same as the collective. If wisdom is a cultural and collective product that ‘... is found in its higher forms in written materials such as the Holy Bible or legal texts’ [Kunzmann & Baltes, 2003, p. 334], why did the Berlin group not ask participants to consult or think about wisdom literature?

Second, Staudinger and Baltes [1996, p. 759] speculate that ‘... the failure [of respondents in the external-dialogue condition] to produce performance increases was likely due to the absence of an opportunity for further thought processes about the dialogue.’ Although this is probably true, it is not clear why ‘further thought processes’ should matter if ‘wisdom is a collectively anchored product’ and ‘individuals by themselves are only “weak” carriers of wisdom’ [Baltes & Staudinger, 2000, p. 130]. Instead, I suggest that reflective thought processes are essential to *realize* wisdom [Kekes, 1995]. Only the descriptive (intellectual) content of wisdom can be shared, as it is done, for example, in holy books, legal texts [Kunzmann & Baltes, 2003], or proverbs [Baltes & Staudinger, 2000], but each person has to realize the deeper meaning of this knowledge for him- or herself [Blanchard-Fields & Norris, 1995; Kekes, 1983]. If the wisdom of the collectively and historically accumulated knowledge in the fundamental pragmatics of life is not realized by a person, the knowledge remains intellectual (descriptive) knowledge *about* wise behavior but is unlikely to lead to a paradigm shift in knowing, a truly deep understanding of the fundamental pragmatics of life, and a transformation of the individual.

Expected Correlates of Wisdom

If wisdom is ‘expertise in the conduct and meaning of life’ [Baltes & Staudinger, 2000, p. 124], it is likely that the development of wisdom takes time. Similarly, if wisdom teaches the ‘art of living’ or how to lead a good life for oneself and others [Baltes & Freund, 2003; Baltes & Staudinger, 2000; Hart, 1987; Kekes, 1995; Kramer, 2000; Kunzmann & Baltes, 2003; Sternberg, 1998], it might be expected that the acquisition of wisdom is accompanied by a strengthening of positive personality characteristics, such as maturity, integrity, and generativity, and a weakening or transcendence of negative characteristics, such as neuroticism or self-centeredness [Erikson, 1963; Erikson, Erikson, & Kivnick, 1986; Hart, 1987; Helson & Srivastava, 2002]. As a consequence, people who possess wisdom are assumed to know how to deal with intra- and interpersonal conflict and the vicissitudes of life [Kunzmann & Baltes, 2003]. They have found meaning, purpose, and contentment in life even if objective circumstances are less than ideal [Assmann, 1994; Baltes & Freund, 2003; Bianchi, 1994; Clayton, 1982; Dittmann-Kohli & Baltes, 1990; Kekes, 1995; Kramer, 2000; Kunzmann & Baltes, 2003; Sternberg, 1990b; Vaillant, 1993].

Does Wisdom Increase with Age?

The development of wisdom requires the transcendence of one's subjectivity and projections, which can be accomplished through self-examination, self-awareness, and a reflection on one's own behavior and one's interactions with others [Achenbaum & Orwoll, 1991; Ardel, 2000b, 2003; Clayton, 1982; Kekes, 1983, 1995; Levitt, 1999; Taranto, 1989]. Subjectivity and projections consist of one's tendency to see only one side of an issue and to regard other people and circumstances as the reason for one's own feelings, behavior, and situation. The transcendence of one's subjectivity and projections results in the liberation from inner forces, such as one's fears, impulses, passions, and desires [Hanna & Ottens, 1995; Hart, 1987].

However, transcending one's subjectivity and projections is not an easy task and, therefore, requires determination and constancy [Kekes, 1983]. A determination for constant self-examination and self-awareness enables one to look at problems and events objectively, to take all perspectives into account and not be overwhelmed by negative emotions [Hart, 1987; Kunzmann & Baltes, 2003; Levitt, 1999]. It is then possible to transcend one's subjectivity and projections and to dissolve negative emotions. The whole process 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].

Crises and obstacles in life have the potential to trigger the development of wisdom. To solve a crisis and to remove an obstacle people are often forced to look at the problem from a different perspective, which tends to cause an awareness of their subjectivity and projections. If they are willing to work on the transcendence of their subjectivity and projections through the practice of reflection, self-examination, and self-awareness, they will not only be able to master the crises and obstacles in their lives but also decrease their self-centeredness and increase their maturity and wisdom [Kramer, 1990].

Not many people, however, might be willing to pursue this difficult path to wisdom. This might explain why wisdom does not automatically grow with age and is relatively rare even among the older population [Assmann, 1994; Baltes, 1993; Baltes & Freund, 2003; Baltes & Staudinger, 2000; Dittmann-Kohli & Baltes, 1990; Sternberg, 1990b]. Still, in comparison to younger people, older adults might have experienced more crises and obstacles in their lives and they had more time to practice reflection, self-examination, and self-awareness and to work on the transcendence of their subjectivity and projections. As Kekes [1983, p. 286] observes, 'one can be old and foolish, but a wise man is likely to be old, simply because such growth takes time.' This means that the association between wisdom and age is potentially positive, at least among people who are motivated to pursue the acquisition of wisdom.

However, the Berlin group did not find a correlation between 'wisdom' scores and age in a diverse cross-sectional sample of 533 respondents between the age of 20 and 89 [Staudinger, 1999]. Neither did they find a significant difference between the 'wisdom' scores of younger clinical psychologists (age 25–37) and older clinical psychologists (age 65–82), an occupational group that, according to the Berlin

group, should have easier access to the acquisition of wisdom [Smith, Staudinger, & Baltes, 1994; Staudinger, Smith, & Baltes, 1992].⁴

By contrast, age was positively related to ‘wisdom’ for adolescents and young adults between the age of 14 and 25 [Pasupathi, Staudinger, & Baltes, 2001]. Furthermore, in one study of adult professionals from various backgrounds, performance on the wisdom tasks significantly *decreased* with age [Smith & Baltes, 1990]. Except for adolescents, the Berlin group also reports a subject age/target age fit. In general, participants of any profession scored higher when the target of the life review or life-planning problem belonged to their own age group [Smith & Baltes, 1990; Smith, Staudinger, & Baltes, 1994; Staudinger, Smith, & Baltes, 1992]. Staudinger, Smith, and Baltes [1992] suggest that those results are due to cohort effects:

The nature of possible cohort effects are ... of at least two kinds: (a) They can involve specific cohort differences in knowledge associated with professional training (clinical psychology) and (b) general cohort differences in knowledge about the fundamental pragmatics of life ... psychological training most likely has changed and professional *psychological knowledge* has grown across the age/cohorts involved ... Moreover, in terms of general *knowledge about life*, because of media coverage, the availability of knowledge about the life cycle and human behavior is likely to be more widespread today than was the case 30 to 40 years ago. Consequently, the older participants may not have been as well acquainted with this *information* – except for topics concerning their own age group – as the younger adults ... Furthermore, this cohort change in *availability of life knowledge* implies the possibility of anticipatory socialization on the part of current-day young adults. Young adults today have potential access to this knowledge *without* having to make related *life experiences* themselves. (p. 279f.; emphasis added)

The knowledge the Berlin group describes in this citation is intellectual (theoretical) or descriptive knowledge rather than wisdom or interpretative knowledge. The advantage of intellectual knowledge is that its content can easily be shared. Intellectual knowledge, not wisdom, as Baltes and colleagues seem to believe [Baltes & Staudinger, 1993; Smith, Staudinger, & Baltes, 1994; Staudinger, Smith, & Baltes, 1992], is culturally shared knowledge. In fact, intellectual knowledge is likely to increase during the adolescent and early adulthood years. Adolescence and early adulthood tend to be a time during which individuals acquaint themselves with the existing ‘crystallized’ stock of intellectual knowledge that a culture has to offer [Baltes & Staudinger, 1993; Baltes, Staudinger, & Lindenberger, 1999]. However, this stock of intellectual knowledge might gradually decline and become outdated with advancing age even in the absence of cognitive decline [Baltes, Staudinger, Maercker, & Smith, 1995; Moody, 1986]. Intellectual knowledge is time-bound because it is subject to political and historical fluctuations [Clayton, 1982; Clayton & Birren, 1980; McCarthy, 1996]. What might be considered the (intellectual) truth at one point in time might be viewed as utterly wrong at

⁴ It should be mentioned that Staudinger, Smith, and Baltes [1992] report that 4 older clinical psychologists (out of 8) but only 3 younger clinical psychologists (out of 9) received overall wisdom scores in the top 25% of wisdom performances compared to 2 older control professionals (out of 14) and 2 younger control professionals (out of 12). Yet, given the small sample size, that difference in the wisdom performances between older and younger clinical psychologists was not statistically significant.

another time (e.g., ‘The earth is the center of the universe.’). Furthermore, as Max Weber [1973] pointed out, all intellectual knowledge is destined to be superseded by ‘superior’ knowledge in the future. If individuals are not willing to ‘update’ their stock of intellectual knowledge periodically, they will know less than younger generations.

In comparison, wisdom often is assumed to be timeless and independent of scientific advancements or political and historical fluctuations because it addresses basic predicaments of the human situation [Clayton, 1982; Clayton & Birren, 1980; Levenson & Crumpler, 1996]. Wisdom provides universal answers to universal questions that pertain to the conduct and meaning of life and the human condition in general (e.g., ‘What is the meaning and purpose of life?’, ‘How should I lead my life?’, ‘How should I deal with suffering and injustice?’). Hence, wisdom is relevant for every cohort and age group, independent of their specific place in history [Assmann, 1994; Holliday & Chandler, 1986].

Moreover, recall that the goal of wisdom or interpretative knowledge is to comprehend the deeper meaning of descriptively known facts, a task that cannot be directly taught [Blanchard-Fields & Norris, 1995; Kekes, 1983; Moody, 1986]. Intellectual training or formal instructions are not enough for wisdom to emerge [Sternberg, 1998]. Only intellectual knowledge can be taught, for example at universities, or distributed by the media. Wisdom, however, needs to be realized through reflection on personal *experiences* [Ardelt, 2000b; Blanchard-Fields & Norris, 1995], and no amount of easily available knowledge about life can substitute for life experiences. Hence, wisdom should be immune to cohort effects that are based on the greater availability of intellectual knowledge alone.

I agree with Baltes and colleagues that growing older is not a sufficient condition for the acquisition of wisdom [e.g., Baltes & Freund, 2003; Baltes & Staudinger, 2000; Staudinger, 1999]. It often requires the right type of motivation and an unwavering desire to pursue the path to wisdom. Therefore it is not surprising that only few people, even in old age, are considered wise. Yet, if the development of wisdom takes time, one would expect that people who might be interested in the attainment of wisdom, such as spiritual counselors or clinical psychologists who presumably have facilitated access to the acquisition of wisdom [Smith, Staudinger, & Baltes, 1994], should exhibit more wisdom in old age than in young adulthood. Baltes and colleagues [Smith, Staudinger, & Baltes, 1994; Staudinger, Smith, & Baltes, 1992], however, did not find that this was the case. Young clinical psychologists (age 26–37) performed as well on the wisdom tasks as older clinical psychologists (age 65–82).

Of course, cross-sectional studies ultimately are unable to answer the question whether wisdom tends to increase with advancing age. To examine the association between wisdom and age, longitudinal studies should be conducted that map the development of wisdom over a long period of time for individuals with diverse interest in the acquisition of wisdom. People who are motivated to pursue wisdom would be expected to grow wiser over the years, whereas for others, the relation between wisdom and age is likely to be weaker or non-existent.

In fact, Wink and Helson [1997] received empirical support for those hypotheses in a longitudinal study. They assessed respondents’ practical wisdom (measured by self-reported cognitive, reflective, and mature adjectives from the Adjective Check List) at the age of 27 and again at age 52, and found that practical wisdom

tended to increase over a period of 25 years. Furthermore, clinical psychologists acquired, on average, more practical wisdom over time than did non-psychologists. In follow-up research with only the women from the earlier study, Helson and Srivastava [2002] found that a psychological or spiritual career path earlier in life had a positive effect on the women's degree of wisdom at age 61. In this later study, wisdom was measured as a latent variable with practical wisdom, transcendent wisdom, and scores on a wisdom task as the effect indicators. Transcendent wisdom was based on external ratings by psychologically trained judges of respondents' examples of their own wisdom. The wisdom task was taken from the Berlin group's research [Baltes, Staudinger, Maercker, & Smith, 1995] and asked respondents what they would do if a friend telephoned to inform them that he or she has decided to commit suicide. However, unlike in the Berlin wisdom studies, responses were given in writing rather than orally, and the dimensions that were rated by two psychologists were cognitive differentiation, procedural knowledge, emotional understanding, and moral complexity, which (with the exception of procedural knowledge) differ from the wisdom criteria developed by the Berlin group.

'The Art of Living'

There is general agreement that wisdom teaches 'the art of living' or how to lead a life that is beneficial 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; Sternberg, 1998]. Even though the acquisition of wisdom requires cognitive skills, intelligence alone is no guarantee for wisdom [Clayton, 1982; Hanna & Ottens, 1995; Staudinger, Lopez, & Baltes, 1997]. Instead, a combination of cognition, self-reflection and openness to all kinds of experiences appears to be necessary for wisdom to emerge [Ardelt, 2000b; Blanchard-Fields & Norris, 1995; Clayton & Birren, 1980; Helson & Srivastava, 2002; Kekes, 1995; Levitt, 1999; Taranto, 1989]. Hence, it is expected that people who possess wisdom have developed positive personality characteristics, such as maturity, integrity, and generativity, and overcome negative personality characteristics, such as neuroticism or self-centeredness [Erikson, 1963; Erikson, Erikson, & Kivnick, 1986; Hart, 1987; Helson & Srivastava, 2002]. They know how to deal with the vicissitudes of life because they have a strong sense of the ultimate meaning and purpose of life and, therefore, can be satisfied with life even if the external circumstances are less than ideal [Ardelt, 2000b; Assmann, 1994; Bianchi, 1994; Clayton, 1982; Dittmann-Kohli & Baltes, 1990; Kekes, 1995; Kramer, 2000; Sternberg, 1990b; Vaillant, 1993]. To cite Baltes and Freund [2003, p. 251], who explicate the distinction between theoretical and practical wisdom based on Ancient Greek philosophies, 'theoretical wisdom, which is knowledge about what is good and right for humans, and the application and realization of this knowledge in the conduct of one's life (practical wisdom) is purported to produce happiness and life satisfaction.'

Most of the empirical wisdom research to date has been cross-sectional and, hence, the causal direction of the association between variables is not necessarily clear. Nevertheless, the Berlin group's empirical research suggests that intelligence measures (Raven Progressive Matrices, Thurstone Letter Series, and Hamburg-

Wechsler Adult Intelligence vocabulary subtest) are only weak predictors of participants' average wisdom-related performance. By contrast, cognitive thinking styles and creativity were most strongly related to the average 'wisdom' scores, followed by personality variables, such as Openness to Experience (i.e., fantasy, aesthetics, feelings, actions, ideas, and values) from the Five-Factor NEO Personality Inventory [e.g., Costa & McCrae, 1992], personal growth from the Ryff Inventory of Psychological Well-Being [Ryff, 1989], and psychological mindedness from the California Personality Inventory [Pasupathi & Staudinger, 2001; Staudinger, Lopez, & Baltes, 1997; Staudinger, Maciel, Smith, & Baltes, 1998]. Extraversion (i.e., warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions) was in one study negatively related [Staudinger, Maciel, Smith, & Baltes, 1998] and in the other studies unrelated to average performance on the wisdom tasks. Neuroticism and agreeableness were not significantly correlated with wisdom-related performance in all of the Berlin studies. Similarly, measures of autonomy, environmental mastery, positive relations, purpose in life, and self-acceptance from the Ryff Inventory of Psychological Well-Being [Ryff, 1989] were unrelated to respondents' average wisdom scores [Staudinger, Lopez, & Baltes, 1997]. However, wisdom-related knowledge was positively (albeit only weakly) related to preference for cooperative conflict management strategies and negatively related to preference for conflict management strategies characterized by dominance, submission, and avoidance in a structural equation model where wisdom was measured as a latent variable with the five wisdom criteria as its effect indicators [Kunzmann & Baltes, 2003].

If wisdom is defined and measured as 'an expert knowledge system in the fundamental pragmatics of life' [Baltes & Staudinger, 1993, p. 76], it is not surprising that cognitive thinking styles and creativity would be most predictive of respondents' wisdom scores and that wisdom-related knowledge, in turn, would be positively related to a preference for the conflict management strategy of cooperation and negatively related to the strategies of dominance, submission, and avoidance. There is also no reason to assume that 'experts' with extensive intellectual knowledge in life planning, management, and review would be less neurotic and more agreeable than would be 'lay' persons. By contrast, if wisdom teaches the 'art of living' and is defined as 'expertise in the conduct and meaning of life' [Baltes & Staudinger, 2000], it should be negatively related to neuroticism (i.e., anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability) and positively related to agreeableness (i.e., trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness), autonomy, mastery, purpose in life, self-acceptance, and positive relations. Yet those personality variables were unrelated to the 'wisdom' scores in the Berlin wisdom studies. Again, those results suggest that Baltes and colleagues measure intellectual knowledge in specific wisdom domains but not necessarily wisdom per se.

Empirical wisdom studies by researchers other than Baltes and colleagues, however, show that wisdom might indeed be related to a more mature and integrated personality, purpose in life, generativity, life satisfaction, subjective well-being, and positive social relations. In a review of contemporary and historical literature on wisdom, Clayton [1982, p. 315f.] found that '... older people who did possess wisdom did not begrudge loss of those people or things over which they could exert no control; they treated their infirmities with humor as well as medi-

cine and exuded a contentment and peacefulness that drew the discontented to them.' Orwoll and Perlmutter [1990] reported that wise nominees scored higher on an ego-integrity measure than creative nominees. The former were also more likely than the latter to endorse a generative perspective (i.e., concern for humankind). Levitt [1999] interviewed 13 Tibetan Buddhist monks about their development of wisdom and experienced changes in personality. The monks stated that they had become more compassionate, less jealous, and better able to control their temper.

In a study of 85 adults ranging in age from 22 to 78 years, Webster's [2003] Self-Assessed Wisdom Scale (SAWS) was positively and significantly associated with ego integrity and generativity. The SAWS consists of 30 questionnaire items that measure five non-cognitive dimensions of wisdom: critical life experiences, reflectiveness/reminiscence, emotional regulation, openness to experience, and humor.

In Wink and Helson's [1997] earlier wisdom research, both practical wisdom and transcendent wisdom (described above) of respondents in their 50s were correlated positively and significantly with ego development, insight, autonomy, and psychological mindedness. Only practical wisdom was related to generativity, social initiative, leadership, and empathy, and only transcendent wisdom was related to intuition, occupational creativity, and flexibility. However, both practical wisdom and transcendent wisdom were unrelated to life satisfaction or marital satisfaction. In the follow-up study with only the women from the earlier research [Helson & Srivastava, 2002], low repression, tolerance of ambiguity, achievement via independence, psychological mindedness, and tolerance at age 21 as well as Q-sort descriptions of meaning-making and benevolence toward others at the age of 43 were positively related to the women's level of wisdom (measured as a latent variable with practical wisdom, transcendent wisdom, and scores on a wisdom task as effect indicators, see above) at age 61.

An Alternative Model of Wisdom: Wisdom as a Three-Dimensional Personality Characteristic

If wisdom cannot be limited to the intellectual or cognitive domain but encompasses the whole person, it might be more important to find out what a person is like rather than what a person knows to measure wisdom. I suggest that one cannot be an 'expert in wisdom' or a carrier of wisdom-related knowledge without *being* wise [Moody, 1986]. If this is true, then wisdom is in fact a property of individuals.

Based on earlier research by Clayton and Birren [1980], I propose a relatively parsimonious model of wisdom, as an integration of cognitive, reflective, and affective personality characteristics (see table 1). Clayton and Birren [1980] arrived at this definition through a multidimensional scaling analysis of twelve wisdom attributes. This basic and general description of wisdom seems to be compatible with most of the definitions found in the ancient and contemporary wisdom literature [Clayton & Birren, 1980; Manheimer, 1992; Sternberg, 1990b] and, simultaneously, is distinct enough to distinguish a wise person from, for example, an intelligent, creative, or altruistic individual [Holliday & Chandler, 1986; Sternberg, 1990a].

Table 1. Definition and operationalization of wisdom as a three dimensional personality characteristic

Dimension	Definition	Operationalization
Cognitive	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.	Items or ratings should assess <ul style="list-style-type: none"> • the ability and willingness to understand a situation or phenomenon thoroughly; • knowledge of the positive and negative aspects of human nature; • acknowledgement of ambiguity and uncertainty in life; • the ability to make important decisions despite life's unpredictability and uncertainties.
Reflective	A perception of phenomena and events from multiple perspectives. Requires self-examination, self-awareness and self-insight.	Items or ratings should assess <ul style="list-style-type: none"> • the ability and willingness to look at phenomena and events from different perspectives; • the absence of subjectivity and projections (i.e., the tendency to blame other people or circumstances for one's own situation or feelings).
Affective	Sympathetic and compassionate love for others.	Items or ratings should assess <ul style="list-style-type: none"> • the presence of positive emotions and behavior toward others; • the absence of indifferent or negative emotions and behavior toward others.

Based on Clayton and Birren [1980] and Ardel [1997, 2003].

As summarized in table 1, the *cognitive* dimension of wisdom refers to the desire to know the truth and attain a deeper understanding of life, particularly with regard to intrapersonal and interpersonal matters. That 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. However, to achieve a deeper and undistorted comprehension of reality one first has to overcome one's subjectivity and projections through the practice of (self-)reflection [Kekes, 1995]. The *reflective* component of wisdom represents self-examination, self-awareness, self-insight and the ability to look at phenomena and events from different perspectives. Through those practices one is likely to overcome gradually one's subjectivity and projections, which will make it possible to perceive and accept the reality of the present moment and to gain a better understanding of oneself and others [Csikszentmihalyi & Rathunde, 1990; Hart, 1987; Kekes, 1995; Taranto, 1989]. Only after the transcendence of one's subjectivity and projections is a deeper understanding of life possible. According to Kramer [1990, p. 296], 'one

must be able to first become aware of and then transcend one's projections before one can develop both the empathic skills and the cognitive processes associated with wisdom.' Finally, the *affective* component consists of a person's sympathetic and compassionate love for others. The transcendence of one's subjectivity and projections through (self-)reflection is likely to reduce one's self-centeredness. This, in turn, will permit deeper insights into one's own and others' motives and behavior, which enable a wise person to interact with people in a more constructive, sympathetic, and compassionate way [Achenbaum & Orwoll, 1991; Clayton & Birren, 1980; Csikszentmihalyi & Rathunde, 1990; Holliday & Chandler, 1986; Kramer, 1990; Orwoll & Achenbaum, 1993; Pascual-Leone, 1990]. Defined in this way, wisdom is a Weberian ideal type [Weber, 1980] that might rarely exist in reality. However, if wisdom is regarded as a continuum that ranges from very low to very high wisdom, it becomes possible to assess how close people come to this ideal state.

The cognitive dimension of wisdom and the top half of the reflective dimension of wisdom in table 1 resemble Baltes and colleagues' five wisdom criteria. However, the Berlin group's wisdom criteria do not explicitly assess respondents' subjectivity and projections or their feelings of sympathy and compassion for others. Instead of assessing wisdom via knowledge, as the Berlin MPI group attempts to do, I suggest to measure wisdom indirectly by assessing the attributes and personality characteristics of wise individuals. As already addressed, this approach has strong conceptual advantages. It also has the methodological advantage that it can be applied to already existing items and studies [Ardelt, 1997, 2000a, 2003; Wink & Helson, 1997].

My research focuses on the antecedents and effects of wisdom in old age, with special emphasis on the role of wisdom in aging and dying well. Following the traditions of Erikson [1982] and Erikson et al. [1986], Jung [1971], and Maslow [1970, 1971] and their theory of life-long psychosocial development and growth, I hypothesized that older people's degree of wisdom is more important in predicting life satisfaction than objective circumstances (e.g., physical health, socioeconomic status, finances, social involvement, residential situation, etc.). Life satisfaction was defined as subjective well-being or '... a feeling of contentment and a lack of dissatisfaction with *all* areas of one's life' [Ardelt, 1997, pp. 16f., emphasis in the original], which also included congruence between desired and achieved goals.

I first used items from Haan's Ego Rating Scale [Haan, 1969] and the California 100-item Q-sort [Block, 1971] to measure the cognitive, reflective, and affective dimensions of wisdom in a secondary data analysis of 120 white older respondents from Berkeley, California, ranging in age from 58 to 82 years [Ardelt, 1997]. The study was conducted in 1968/69 as a 40-year follow-up project to the longitudinal Berkeley Guidance Study, which began in 1928/29, to examine the interplay between life styles and personality characteristics of older people [Maas & Kuypers, 1974]. All items were rated by at least two clinically experienced and trained coders from the staff of the Institute of Human Development at Berkeley who read the transcribed semi-structured interviews.

Although the measurement of wisdom was not part of the original research agenda, I was able to find several items from the Ego Ratings and the Q-sort that described the cognitive, reflective, and affective attributes and characteristics of a wise person. Along the cognitive dimension, I chose five items that tapped partici-

pants' ability and willingness to understand a situation or phenomenon thoroughly. Those items were objectivity, intellectuality, logical analysis, concentration, and the ability 'to see to the heart of important problems.' The reflective dimension consisted of 9 items that assessed respondents' ability and willingness to look at phenomena and events from different perspectives (e.g., no projection, introspection, 'insight into own motives and behavior', the person 'is *not* extrapunitive; does *not* tend to transfer or project blame'). The affective dimension was composed of 11 items that measured the presence of positive and the absence of negative or indifferent emotions and behavior toward others (e.g., empathy, person 'behaves in a sympathetic or considerate manner,' 'has warmth, is compassionate,' 'has *no* hostility toward others').⁵ Confirmatory factor analysis in LISREL [Bollen, 1989; Jöreskog & Sörbom, 1996] showed that the cognitive, reflective, and affective personality characteristics (computed as the simple average of their respective items) could serve as effect indicators of the latent variable wisdom, meaning that respondents who scored high on the cognitive dimension also tended to score high on the reflective and affective dimensions of wisdom.

As expected, the latent variable wisdom had a stronger statistical effect on life satisfaction in old age than objective indicators of the quality of life (physical health, socioeconomic status, financial situation, physical environment, and social involvement). However, unlike life satisfaction, wisdom in old age was not associated with any of the objective life quality indicators, except physical health [Ardelt, 1997]. That suggests that wise older people are likely to be satisfied with their life independently of the objective circumstances they encounter because they are better able than are other older adults to deal with the vicissitudes of life.

In addition, longitudinal data analyses showed that a supportive social environment in early adulthood had a positive impact on wisdom in old age over 40 years later, whereas the quality of the respondents' childhood and mature personality characteristics in early adulthood were unrelated to wisdom in old age [Ardelt, 2000a]. Further research on the antecedents of wisdom in old age suggested that relatively wise older people were able to grow psychologically through the experience of economic hardship during the Great Depression, while the psychological health of less wise elderly men and women who experienced similar hardships declined after the Depression years. By contrast, the psychological health of respondents without Depression hardship experiences remained relatively stable during and after the years of the Great Depression [Ardelt, 1998]. This implies that crises and hardships in a person's life do not automatically result in wisdom. Rather, the development of wisdom requires a willingness to learn from life's lessons and to be transformed in the process. Without such a commitment to psychological growth, crises and hardships might lead to psychological disintegration rather than wisdom.

To measure wisdom in standardized surveys, I developed a self-administered three-dimensional wisdom scale (3D-WS) based on the operationalization of the cognitive, reflective, and affective dimensions of wisdom given in table 1 [Ardelt, 2003]. Initially, I selected 132 potential wisdom items primarily from existing scales that appeared to assess the cognitive, reflective, or affective dimensions of

⁵ Cronbach's α values for the three scales ranged from 0.85 to 0.93.

wisdom. Those items and other scales were subsequently administered to 180 members of close-knit groups of older people ranging in age from 52 to 87 years to test the validity and reliability of the 3D-WS.⁶

The final version of the 3D-WS consists of 14 items for the cognitive dimension (e.g., ‘Ignorance is bliss’; ‘People are either good or bad’; ‘I am hesitant about making important decisions after thinking about them’; – all items remaining in this dimension show the *absence* rather than the presence of the cognitive characteristic of wisdom), 12 items for the reflective dimension (e.g., ‘When I am confused by a problem, one of the first things I do is survey the situation and consider all the relevant pieces of information’; ‘When I’m upset at someone, I usually try to “put myself in his or her shoes” for a while’; ‘I always try to look at all sides of a problem’), and 13 items for the affective dimension (e.g., ‘I can be comfortable with all kinds of people’; ‘Sometimes I feel a real compassion for everyone’; ‘If I see people in need, I try to help them one way or another’).⁷

As in the earlier studies, wisdom was measured indirectly as a latent variable. Confirmatory factor analysis in LISREL confirmed that the latent variable wisdom could be assessed through the cognitive, reflective, and affective dimensions of the 3D-WS. Moreover, it appears that the 3D-WS is a sufficiently valid and reliable instrument to measure a person’s indicators of the latent variable wisdom in large, standardized surveys of older populations if wisdom is defined and operationalized as a three-dimensional personality characteristic [Ardelt, 2003]. As predicted (predictive validity), the 3D-WS was significantly and positively related to general well-being, mastery, purpose in life and subjective health, and negatively related to depressive symptoms, feelings of economic pressure, death avoidance and fear of death. Respondents who scored high on the 3D-WS were also more likely to be nominated as wise by other study participants from their close-knit social groups (convergent validity). Moreover, the 3D-WS was unrelated to respondents’ finances, marital and retirement status, gender, race, and a social desirability index (discriminant validity). In addition, the 3D-WS was relatively stable across time. The factor loadings of the 3D-WS at the beginning of the study were not statistically different from the factor loadings of the 3D-WS 10 months later (test-retest reliability).

Based on those wisdom studies, I propose that the simultaneous presence of cognitive, reflective, and affective personality characteristics is *necessary* but also *sufficient* for a person to be considered wise. All men and women of the past and present whom many people regard as wise, such as Jesus of Nazareth, the Buddha, Muhammad, Mahatma Gandhi, Christian saints, Zen masters, etc., seem to possess those three qualities [Carmody & Carmody, 1994]. First, they seem to know something that eludes others. But this knowledge is more than a simple accumulation of

⁶ All potential wisdom items were measured on 5-point scales ranging either from (1) ‘strongly agree’ to (5) ‘strongly disagree’ or from (1) ‘definitely true of myself’ to (5) ‘not true of myself’. Potentially wisdom items were discarded if their range was <4 on the 5-point scales, had a high skewness or kurtosis (> |2|) or a small variance (<0.56), were at least moderately correlated with a social desirability index ($r \geq 0.30$), had a low inter-item correlation with other items from the same dimension of wisdom, or correlated negatively with most items from the other two dimensions of wisdom [DeVellis, 1991].

⁷ Cronbach’s α values for the three dimensions of wisdom were 0.78, 0.75, and 0.74, respectively.

facts that can be written down in a book and studied by their followers [Blanchard-Fields & Norris, 1995]. They perceive a deeper truth that had a profound effect on their personality and conduct in life. Hence, they teach others as much by words as by personal example. Second, wise individuals are able to transcend their subjectivity and projections and look at events objectively and from many different perspectives. Third, people who lack sympathy and compassion for others are generally not considered wise.

For example, when Jesus was asked what should be done to the woman who committed adultery he said, 'He that is without sin among you, let him first cast a stone at her' [John 8:7]. This reply took into account the perspective of the law that required adulterers be stoned, the desire of the people to punish a woman who had committed a crime, a test of the law-obedience of the prophet who proclaimed a philosophy of love and forgiveness, and the anguish and fear of the woman who had broken the law. Jesus' answer revealed not only knowledge of the whole situation but also love and compassion for the accused woman as well as for her accusers. He did not criticize the people for their behavior but helped them to perceive the event from a different perspective, thereby allowing them to grow through the experience.

Cognition alone might make a good scientist or businessperson but it is not a guarantee for wisdom. Individuals who combine cognition and reflection, especially self-reflection, might overcome their subjectivity and projections to a certain degree, but if their ultimate goal is more power, wealth, fame, etc. rather than the quest for truth, their self-centeredness will ultimately increase rather than decline. Those people are unlikely to be characterized as wise if their self-centeredness prevents them from developing sympathy and compassion for others and the pursuit of a common good [Sternberg, 1998].

People who exhibit cognitive and affective qualities are often members of the helping professions, such as counselors, clinical psychologists, psychoanalysts, religious ministers, etc. Those individuals tend to possess a vast amount of intellectual knowledge about the human condition and the vicissitudes of life and generally feel sympathy and compassion for their clients. But while they are able to help others, they often fail to help themselves to lead a more fulfilling and rewarding life, a syndrome that Schmidbauer [1977] describes as being a 'helpless helper.' Helpless helpers might have insight into their clients' motives and behavior but lack self-insight and self-awareness and, therefore, are unaware of their own subjectivity and projections. In fact, they might project their own subjectivity and negativities into their clients' motives and behavior. If they do not engage in self-reflection, they are unable to see reality (including their own reality) as it is and, hence, cannot be considered wise.

Finally, individuals who engage in self-awareness and self-reflection to transcend their subjectivity and projections and who reduce their self-centeredness in the process to become more caring, sympathetic, and compassionate towards others might still be unable to acquire wisdom if their primary interest is not the pursuit of truth. An example might be members of various religious sects who are often willing to trade critical and rational thinking for the promise of freedom from outer and inner forces and a communal feeling [e.g., Bainbridge, 1978]. In those circles, objectivity and rational analysis are often viewed as enemies of self-discovery and love. The danger, then, is that these people might uncritically substitute a new

'reality' that is provided by the leaders of the movement or cult for the commonly shared reality. Instead of trying to discover reality 'as it is,' they concentrate on those truths that grant them a feeling of community, love, happiness, and bliss. In the process, they might immerse themselves deeper into certain illusions rather than overcome all of their projections.

Wise people, by contrast, are able to accept the positive as well as the negative side of reality [Assmann, 1994; Gadamer, 1960; Strijbos, 1995; Weinsheimer, 1985]. They are satisfied with their lives not because they concentrate only on its positive aspects but because they are aware of and can *accept* the reality of the present moment [Blanchard-Fields & Norris, 1995; Hart, 1987]. As a consequence, wise individuals can face even the most difficult situations with equanimity, such as the physical and social challenges that accompany old age [Ardelt, 1997, 2000a; Clayton, 1982; Kramer, 2000].

Thus, all three dimensions appear to be necessary for the acquisition of wisdom. I propose, however, that those cognitive, reflective, and affective personality characteristics are also *sufficient* for wisdom to emerge, which makes this wisdom model relatively parsimonious. Other positive qualities that wise people are assumed to possess such as good judgment skills [Clayton, 1982; Dittmann-Kohli & Baltes, 1990; Kekes, 1983, 1995; Orwoll & Achenbaum, 1993; Sternberg, 1990b, 1998], psychological health [Birren & Fisher, 1990; Kekes, 1983, 1995; Taranto, 1989], humor [Webster, 2003], autonomy [Kekes, 1983, 1995; Rathunde, 1995], and a mature and integrated personality [Csikszentmihalyi & Rathunde, 1990; Kramer, 1990; Labouvie-Vief, 1990; Pascual-Leone, 1990] are hypothesized to be the product of a person's cognitive, reflective, and affective characteristics.

Of course, my own empirical research on wisdom has not been as extensive as that of Baltes and colleagues, and future research is necessary to validate the 3D-WS further and to test the hypothesis that individuals who score high on cognitive, reflective, and affective personal qualities also have exceptional judgment skills, humor, and a psychologically healthy, mature, integrated, and autonomous personality. It should also be mentioned that other models of wisdom exist besides the Berlin group and the Clayton and Birren model. For example, Achenbaum and Orwoll [1991] describe wisdom as a two-dimensional model that requires the transformation of intrapersonal, interpersonal, and transpersonal aspects in the domains of personality, cognition, and conation, and Sternberg [1998, p. 347] developed a balance theory of wisdom that defines wisdom

... 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.

Most of those models, however, approach wisdom from the perspective of the social sciences. Future wisdom studies might want to broaden their focus by considering the religious, philosophical, and anthropological ramifications of a theory of wisdom.

Discussion

The Berlin MPI group needs to be complimented for beginning the difficult task of trying to operationalize and measure wisdom. Unlike much of the existing aging research, Baltes and colleagues concentrate on the positive aspects of aging by emphasizing the areas where progress is possible throughout life. As mentioned before, this article is not intended as a critique of the Berlin group's theoretical writings on wisdom. In fact, their theoretical work on wisdom has evolved considerably during the years and has moved away from a more cognitive focus on wisdom toward a conceptualization of wisdom that emphasizes the orchestration of mind and virtue in order to lead a good life for oneself, others, and the larger society [Baltes & Freund, 2003; Baltes, Glueck, & Kunzmann, 2002; Baltes & Staudinger, 2000; Kunzmann & Baltes, 2003].

However, I argue that the Berlin group's current definition, operationalization, and measurement of wisdom might be unable to distinguish between intellectual or expert knowledge in the fundamental pragmatics of life and wisdom itself. In fact, Baltes and colleagues probably measure exactly what they claim to measure, that is, 'advanced cognitive functioning' [Dittmann-Kohli & Baltes, 1990] and expert knowledge in life planning, management, and review [e.g., Baltes & Smith, 1990; Baltes, Staudinger, Maercker, & Smith, 1995; Smith, Staudinger, & Baltes, 1994]. Yet, they do not necessarily assess how wise people are. Although the domains of life planning, management, and review might indeed be relevant for wisdom, I argue that the term 'wisdom' should be reserved for wise persons rather than expert knowledge. According to Sternberg [1998, p. 357], '... domain-based expertise is neither necessary nor sufficient for wisdom. Most people know domain-based experts who seem pretty near the bottom of any scale when it comes to wisdom.' Interestingly, even Baltes and colleagues suspect that their model might be better suited to capture professional expertise than wisdom. They state, '... the fact that [the wisdom nominees] performed as well as a professional group trained for the kind of problems under study is noteworthy and can be taken as evidence that the wisdom model developed by us is not *primarily* one of a specific professional expertise' [Baltes, Staudinger, Maercker, & Smith, 1995, p. 164, emphasis added].

One of the earlier articles written by the Berlin group on wisdom was titled 'Wisdom and successful aging' [Baltes, Smith, & Staudinger, 1992]. It is doubtful that expert knowledge in the fundamental pragmatics of life is sufficient or even necessary for successful aging and subjective well-being in old age. By contrast, wise elders tend to be satisfied with their life because they are able to accept the reality of the present moment with equanimity, which helps them to deal with life's uncertainty and the physical, social, and emotional losses that often accompany old age [Ardelt, 1997, 2000a, in press; Blazer, 1991; Clayton, 1982; Erikson, 1963; Erikson, Erikson, & Kivnick, 1986; Kramer, 2000]. Hence, to equate wisdom with expert knowledge or expertise might not advance research on wisdom and aging well.

Due to the extent of their vast research productivity, Baltes and colleagues' operationalization and measurement of wisdom has almost become the unofficial gold standard in research on wisdom, even though alternative approaches exist. This is not the Berlin group's fault, and Baltes and colleagues repeatedly have emphasized that their approach is only one of many possible approaches to conceptu-

alize wisdom [e.g., Baltes & Staudinger, 2000; Staudinger, 1999]. Yet, to define, operationalize, and measure wisdom as an expert knowledge system in the fundamental pragmatics of life might bias the field of empirical wisdom research in a cognitive direction. Baltes and Staudinger [2000, p. 133] quote the Roman Marc Aurel who said: 'It's better to limp slowly along the right path than walk stridently in the wrong direction.' In accordance with this sentiment, I would invite researchers in the area of wisdom to continue the dialogue about the appropriate definition, operationalization, and measurement of wisdom.

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