WISDOM AS A CLASSICAL SOURCE OF HUMAN STRENGTH: CONCEPTUALIZATION AND EMPIRICAL INQUIRY

DEIRDRE A. KRAMER
Rutgers, The State University of New Jersey

Wisdom has been conceptualized as: (1) a rare, highly exercised and developed form of cognitive expertise about the domain of human affairs that allows for multiple conduits or (2) a constellation of personal attributes reflecting a high degree of cognitive, affective, and behavioral maturity that allows for an unusual degree of sensitivity, broad-mindedness, and concern for humanity. Using either conceptualization, wisdom research shows that it is a rare achievement, most often evolving from unusual life experiences that foster introspection, reflection on the human condition, and counseling others. *Openness to experience* is the most frequent predictor of wisdom. Wise people are also found to think more dialectically, exhibit generativity and compassionate concern for others, and accept life's limitations. Wise people show less despair and less dissatisfaction by grappling with existential issues and finding purpose and meaning in adverse experiences.

Throughout history, wisdom has been defined as excellent judgment about human affairs. However, the designation "human affairs" has assumed a myriad of forms, including the existential realm and management of practical, everyday affairs. It is difficult to conceive of an absolute definition of wisdom. Indeed, there has been a proliferation of psychological models of wisdom, each with its own perspective (e.g., see Sternberg, 1990). In these models, the functions of wisdom have varied from individual contemplation to judgments and problem-solving to the ability to guide and counsel others. Some theorists have posited multiple forms or domains of wisdom, such as philosophical/theological versus practical wisdom (Dittmann-Kohli & Baltes, 1990; Moody, 1983) or wisdom as vital reasoning about the *self*, wisdom as *existential* counseling, versus wisdom as feeling *empathic and intuitive*

Address correspondenct to Derdre A. Kramer, Department of Psychology, Rutgers, The State University of New Jersey, 53 Avenue E, Piscataway, NJ 08854-8040.

connection with the needs of others or nature (Pascual-Leone, 1990). Practical wisdom also has been applied to the multiple domains of life management, life planning, and life review (Baltes & Smith, 1990; Staudinger & Baltes, 1997). To encompass the various functions of wisdom, I have proposed that wisdom characteristics may be manifested in any of at least five functional capacities: solving one's own life problems, advising others, leading human institutions, life review, and spiritual/philosophical introspection (Kramer, 1990). In my view, wisdom develops in response to grappling with important emotional, interpersonal, and existential dilemmas.

Certain features converge across past and present conceptions of wisdom. Wisdom generally is seen as a form of judgment pertaining to human affairs. Also, it often is conceptualized as embodying an integration among cognitive, affective, and behavioral dimensions. At least three distinct kinds of cognitive processes have been identified: (a) practical and social intelligence; (b) insight; and (c) awareness of the relativistic, uncertain, and paradoxical nature of human problems. In my view, the latter two components capture the essence of wisdom cognition. With respect to *insight*, wisdom involves both breadth and depth of understanding, allowing the individual to reflect on the immediate situation to extract its more abiding, societal, and universal meanings (Achenbach & Orwoll, 1991; Brent & Watson, 1980; Clayton, 1982). It reflects the ability to individuate oneself from the conventional norms that govern values and actions, in order to integrate the inner, subjective concerns with the outer, conventional expectations (Labouvie-Vief, 1990; Pascual-Leone, 1990). This requires the ability to reflect on the particulars of contextually embedded knowledge to gain insight into deeper or more encompassing human truths. That is, in order to individuate from conventional norms, one must reflect on them, which involves an awareness of the context in which they have evolved. Exposure to alternative knowledge contexts, or perspectives, would facilitate the ability to accept multiple perspectives and critically evaluate human truths.

The other set of cognitive processes that is essential to wisdom involves awareness of the relativistic, uncertain, and paradoxical nature of reality. Real-life problems often necessitate a recognition of the inherent limitations of abstract logic, the subjectivity inherent in what constitutes a problem and what would be an adequate solution, the inherently dynamic, contradictory nature of human experience, and the necessity for using a "logic" based on paradox. This form of thinking derives mostly from the "postformal operations" literature, which posits continued restructuring of thought beyond the formal operations stage of Piagetian theory (e.g., Kramer, 1990; Labouvie-Vief, 1990; Pascual-Leone, 1990); however, some models derive their suppositions from the information processing theory

(e.g., Dittmann-Kohli & Baltes, 1990) or the philosophical literature on wisdom (Clayton, 1982; Moody, 1983; Taranto, 1989).

Why is a mode of thinking predicated on uncertainty, change, and contradiction believed to be important to wise judgment? One reason is that human dilemmas are complex, often subjective, and constantly changing. Moreover, the most important emotional and existential dilemmas in life often do not lend themselves to linear, rational modes of thinking. They may require alternative modes of representation, such as imagery, art, metaphor, and non-linear "logic." Moreover, wisdom is a vehicle for handling the increasing complexity of evolving social structures in an increasingly global world. Staudinger (1996) has provided a compelling rationale for the importance of relativity in wise judgments:

> According to cultural-historical analyses, knowledge related to the conduct, interpretation, and meaning of life is one of the first borders of knowledge to develop in any human community.... Especially in the early phases of cultural evolution, this collective knowledge (i.e., knowledge shared by members of a human community) becomes manifest in sayings, proverbs, and tales.... With cultural evolution proceeding—that is, with the increasing size and complexity of the human community—the number of proverbs increases and proverbs subsequently become more and more detached from the concrete situations in which they were originally coined. At this later "stage" of cultural evolution, the key question then becomes when to apply a particular piece of that body of knowledge.... Wisdom then is contained not in the sayings and proverbs themselves, but rather in their insightful application to a given problem situation." (Staudinger, 1996, pp. 282-283)

Thus, wisdom involves exceptional breadth and depth of knowledge about the conditions of life and human affairs and reflective judgment about the application of this knowledge. In order to exert judgment about when knowledge is applicable in a complex, dynamic human sphere, it is important to reflect on one's own subjective standpoint to consider alternative frameworks and to be receptive to alternative modes of representation.

Cognitive, affective, and behavioral processes in isolation do not define wisdom but, rather, a conglomeration of the three. Research on lay, or prototypical conceptions of wisdom has yielded from three (Clayton & Birren, 1980) to six (Holliday & Chandler, 1986; Sternberg, 1985) dimensions, such as reflectiveness, emotional understanding, social unobtrusiveness, judicious understanding and action, communication skills,

and compassionate concern for others. Psychological theory-driven models of wisdom also are multidimensional, with wisdom frequently being defined at the intersection of cognitive, affective, and behavioral dimensions (Birren & Fisher, 1990; Kramer, 1990; Labouvie-Vief, 1990; Orwoll & Perlmutter, 1990; Pascual-Leone, 1990). Kramer (1990) and Orwoll and Perlmutter (1990) argue from an object relations perspective that with maturity comes an integration of previously repressed emotional and conflictual experience. This makes it possible to integrate conflicting aspects in representations of both self and other. Kramer (1990) argued that, as a result, the individual is less likely to project unwanted conflictual aspects of the self onto others, allowing for a more genuine, empathic connection with others. The more integrated person is, therefore, less judgmental, more tolerant, and more accepting of opposing perspectives and of human limitations.

Labouvie-Vief argues from historical, mythical, and life-span developmental perspectives that maturity brings the ability to integrate one's inner, inherently subjective emotional life with conventionally based logic or rationality; failure to do so in adult life results in sufficient distortion of rationality that irrationality results. In Pascual-Leone's (1990) theory, affect, reason, and action schemas become increasingly integrated over time through a series of structural reorganizations fueled by active exertion of will. The result is an evolution of the capacity to reflect on one's experiences and choices, dis-embed oneself from ingrained, automatic ways of thinking, feeling, and acting, to connect empathically with the experiences of others, and eventually transcend the self so as to be more receptive to "unwilled" experience. Achenbach and Orwoll (1991) and Labouvie-Vief (1990) also propose that the often long and arduous process of coming to know oneself and grappling with the inner reaches of emotional selves eventually leads to some form of *transcendence*, a detached, but encompassing, concern with life itself, or an ability to separate, experience, and own one's emotions as apart from social conventions.

Wisdom is reflected not only in the private realm of thought or affect, but it also manifests itself in constructive action. Kramer (1990) proposes that the wise person is capable of interacting with others in a way that does not put those others on the defensive. Orwoll and Perlmutter (1990) stress the importance of compassionate action in wisdom. In Pascual-Leone's (1990) model, active exertion of will assumes a central role in promoting the ability to counter and change automatic processes. Through the active, effortful process of reflecting on one's experience and attempting to change one's ways of thinking, feeling, and behaving, one develops greater self-realization and concern for core human experience that transcends societal norms.

In summary, psychological theorists have posited that wisdom is a multidimensional construct characterized by cognitive, affective, and

behavioral dimensions that develop increasing integration over time; included in this latter process is the often painstaking effort at integrating opposing self schemes and reflecting on the experiences of self and other. Wisdom seems to go beyond practical and social knowledge to encompass an awareness of human problems; it taps a concern with broad societal and human issues and involves a high degree of self-knowledge and reflection about existential issues; and it leads to intrapersonal development and an increased capacity for compassionate interactions. According to Pascual-Leone, in its most fully developed (and rarely realized) form, wisdom exists as pure integrated consciousness, unimpeded by acts of will, with previously conflicting emotions, cognitions, and other modes of experiencing existing in synchrony.

WISDOM AS A COGNITIVE DOMAIN

Wisdom has been conceptualized in at least two distinct, but not mutually exclusive, ways: as a cognitive domain or a constellation of personal attributes. Paul Baltes, Freya Dittmann-Kohli, Jacqueline Smith, Ursula Staudinger and others at the Max Planck Institute in Berlin conceptualize wisdom as a form of cognitive expertise about the domain of human affairs. Framing it in this manner allows wisdom to present itself in a wide variety of forms, including the written word, common-sense maxims, religious teachings, and historical documents. Direct interpersonal interaction would represent but one conduit of wisdom (Baltes & Smith, 1990).

A fundamental assumption of the "Max Planck" model is that wisdom reflects a pragmatic, crystallized form of intelligence that is selectively maintained in one's later years. They posit a dual-process, "selective compensation with optimization" model of aging intelligence that distinguishes between the "hardware" and "software" of intelligence (Dittmann-Kohli & Baltes, 1990). The "hardware" of intelligence is that component of the cognitive system believed to be directly dependent upon biological structures of the brain. It consists of the ability to process information swiftly and efficiently, to take in novel information and reason inductively and deductively about that information. It is tapped by psychometric measures of fluid intelligence. The "software" of intelligence is tied to experiential knowledge and ostensibly is not as sensitive to changes in physiological structure. With age and experience, observed losses in overall functional capacity may be offset by the use of extensive knowledge structures. Within that framework, Baltes and his colleagues have proposed the selective compensation with optimization model. Adults who have acquired substantial experience in the pragmatics of life will optimize their functional cognitive capacity by relying on applicable complex, existing knowledge structures.

Dittmann-Kohli and Baltes (1990) hypothesize that older adults compensate for diminishing cognitive reserves by selectively maintaining highly rehearsed systems of knowledge at the expense of new and efficient processing of novel information.

The Max-Planck model characterizes wisdom as exceptional insight, good judgment, or advice about life matters. They posit five specific criteria of wisdom: (1) rich factual knowledge about matters of life; (2) procedural knowledge about ways of dealing with life problems; (3) life-span contextualism; (4) uncertainty in problem definition; and (5) relativism regarding problem solution. The first two criteria, rich factual knowledge and extensive procedural knowledge about life matters, are relatively straight-forward and involve experience in making decisions, dealing with interpersonal situations, etc. Life-span contextualism involves an awareness of the ways in which the context can influence problems, including socio-historical and life-phase contexts. Uncertainty of problem definition reflects the inherent ambiguity and multiple interpretations of human problems depending on the unique circumstances of the individual, frame of reference, etc. Relativism in problem solution involves the recognition of the inherent unpredictability of outcomes as well as the subjectivity inherent in what would constitute a successful resolution of the problem (Baltes & Smith, 1990; Dittmann-Kohli & Baltes, 1990).

WISDOM AS A CONSTELLATION OF ATTRIBUTES OR PROCESSES

Achenbach and Orwoll (1991) defined wisdom as the intersection of two tripartite dimensions. The first dimension contains personality, cognition, and conation (i.e., behavioral) and the second the intrapersonal, interpersonal, and transpersonal domains. By cross-referencing these two tripartite dimensions, they derived nine qualities of wisdom (self-development, empathy, self-transcendence on the personality dimension; self-knowledge, understanding, and recognition of limits of knowledge and understanding on the cognition dimension; and integrity, maturity in relationships, and philosophical/spiritual commitments on the conative dimension). Achenbach and Orwoll characterize the three dimensions of personality, cognition, and conation as interdependent and wisdom as a quality that synergistically transcends any one or combination of the nine characteristics. In an idealized form, wisdom is characterized by the integration of all these factors; in actuality, however, the development of each factor will vary with the individual's circumstances (Achenbach & Orwoll, 1991).

One outcome of such advanced development is transcendence

(Orwoll & Perlmutter, 1990), where the individual moves from self to more collective and universal concerns. In this perspective, of the limits of the self as a knower and problem solver are recognized (see also Meacham, 1990; Taranto, 1989). It also reflects a greater accessibility of unconscious experience as a source of insight, not only about oneself but also about others and universal experience. In their view, wisdom thus involves dialectical thinking, self-reflection, and synthesis in conceptions of self and other. Finally, it entails such behavioral manifestations as empathy, understanding, and caring (Orwoll & Perlmutter, 1990). Likewise, Pascual-Leone's (1990) model proposes successive stages of integrating multiple and conflicting schemes of thought, emotion, and action to promote increasing levels of active will, self-transcendence, and eventually detached receptivity to and concern for life's offerings.

EMPIRICAL INVESTIGATION OF WISDOM

THE MAX PLANCK STUDIES

The most systematic research program on wisdom has been directed by Paul Baltes and his colleagues at the Max Planck Institute for Education and Human Development. With coinvestigators Jacqueline Smith and Ursula Staudinger, he developed a think-aloud technique to measure wisdom that has been adapted to the domains of both life planning and life review. Through careful sampling strategies, young, middle-aged, and older community volunteers, wise nominees, and clinical psychologists are recruited as research participants and trained in the think-aloud procedure. After training, they are interviewed about hypothetical dilemmas concerning important life events (related to life planning, management, or review). Responding to a newspaper advertisement, 12 raters are drawn from carefully screened community volunteers; 10 of these are trained to rate responses on one of the five wisdom criteria (allowing for two raters per criterion, to assess inter-rater reliability and obtain an independent assessment of each criterion), while the other two untrained raters provide global wisdom judgments. The global wisdom judgments tend to be highly correlated with the ratings by the trained raters on each of the five criteria, lending support to the idea that there is a discernible quality of "wisdom" that can be reliably identified and assessed. Psychometric intelligence also is assessed and variables that are correlated with wisdom performance, such as amount of verbiage and psychometric intelligence, are statistically covaried in analyses. In addition, Staudinger and Baltes (1997) and Staudinger, Lopez, and Baltes (1997) administered personality, social intelligence, creativity, and cog-

nitive style measures. Collectively, the Max Planck studies reveal the following:

1. Wise performance is a rare occurrence, evident in approximately 5% of subjects tested, supporting Baltes and associates' contention that wisdom is a form of expertise requiring experience, practice, or complex skills that are not expected in the average individual (Baltes & Smith, 1990). The Max Planck research studies reveal relatively low average performances among all groups tested, typically three of a possible seven on any given criterion.

2. Older adults are among the top wisdom scorers, suggesting that wisdom is a useful avenue for studying areas of selective competence in later life (Baltes & Smith, 1990).

3. Professional specialization accords an advantage in wise reasoning on a life planning task (Smith, Staudinger, & Baltes, 1994) and a life review task (Staudinger, Smith, & Baltes, 1992—accounting for 49% of the variance in combined wisdom scores). Even so, the clinical psychologists as a group only performed at a slightly above-average level of wise reasoning, with a mean score just below a 4 on a scale from 1 to 7 (1 to 1½ points higher than nonclinical psychologists, depending on the sample).

4. Wise nominees tend to draw from human-service professions or positions of leadership (56%), or have had exceptional intra- and interpersonal experiences, like penning an autobiography (44%) or being Nazi resistors during the Third Reich (31%) (Staudinger, 1996).

5. Average wisdom-related performance of wise nominees exceeds that of the clinical psychologists (Staudinger, 1996).

6. Among the "top performers" (i.e., top 25% of the wisdom scorers), about half were clinical psychologists. A larger proportion of the top-performing clinical psychologists were older than younger adults, whereas there was an approximately equal number of young and older non-psychologists among the top performers. Thus, Staudinger et al. (1992) concluded that age combined with professional experience may afford people a slight advantage in wisdom. Aggregate performances, on the other hand, do not significantly interact with age and professional specialization.

7. Wisdom is related to personality and the "personality-intelligence interface" (e.g., creativity, cognitive style, reflectiveness), which accounted for the largest percent of the variance in wisdom (9% and 15% respectively), but wisdom also possessed a substantial amount of unique variance, with no one set of variables (i.e., domain) alone contributing greater than 18% of the variance in wisdom and all 33 variables in

concert accounting for just under half the variance (49%) in wisdom scores.

8. In the personality domain, *openness to experience and psychological mindedness* were the strongest of the personality predictors of wisdom performance, with *personal growth* (reflective of Eriksonian development) also contributing to the predictive equation. The factors in the personality-intelligence interface that predicted wise performance were creativity and a form of self-government that allowed for considering multiple sources of information. Wisdom was *not* associated with social intelligence; nor was it related to cautiousness (indeed, quite the opposite, with its correlation to creativity). Regarding its relationship to intelligence, while both fluid and crystallized-type psychometric intellectual measures were related to wisdom, the more crystallized (i.e., "pragmatic") measures showed stronger relationships than fluid ("hardware") measures.

OTHER EMPIRICAL STUDIES

There have been relatively few other large-scale studies of wisdom and none as broad-ranging in scope as the Max Planck studies. One exception is an ambitious dissertation by Tracy Lyster from University of Concordia in Montreal. Lyster (1996) measured the five criteria from the Baltes and Associates' model and added two additional wisdom criteria, affect-cognition integration and generativity. Across two to three sessions totaling about 4–6 hours, Lyster videotaped 78 wise nominees, 78 nominators, and 22 self-referred "wise" individuals discussing important events and a dilemma from their own lives, themselves, their conception of gender, and their concept of wisdom. Lyster scored these for the seven combined wisdom criteria. Moreover, the interviewers rated participants on interpersonal variables and coded the videotapes for emotions expressed. Participants also were asked about conditions they believed to facilitate wisdom. In addition, Lyster administered a battery of cognitive and personality measures, along with a structured personal interview.

Mirroring the Max Planck studies, Lyster found overall performances on the wisdom measure to be in the low/average-to-average range, with wise nominees scoring higher than the other two groups. Also mirroring the Max Planck studies, wisdom, as assessed by her quantitative criteria, was related to global impressions of wisdom by raters, as well as their global impressions of competence, suggesting, again, that there is a distinct, perceptible quality of "wisdom" that can be identified reliably and maps onto existing measures of wisdom. The strongest predictor of wisdom was the personality dimension *Openness to Experience*, mirroring

the Staudinger et al. (1997) finding. Bacelar (1998) too, found openness to experience (as assessed in a life-events interview) to be the single most predictive factor in producing wisdom-related (i.e., dialectical) thinking. Among Lyster's nominated subjects, wise individuals showed higher dialectical and lower absolute scores on the paradigm belief measure, higher scores on the IQ subtests, greater emotional complexity, more reflection and less avoidance in coping with sadness, lower belief in internal control (despite equal *desire* for control), and less life dissatisfaction (but not greater *satisfaction*), despite poorer self-reported health. Wisdom was not related to age or educational level.

Lyster had hypothesized a negative relationship between neuroticism and wisdom and a positive relationship between extraversion and wisdom. Contrary to her hypothesis, however, there was no relationship between either of these variables and wisdom. Sages were no more or less "neurotic" than less wise individuals and spanned the range of extraversion to introversion. Also, wiser individuals did not evince a different pattern of affective expression than less wise individuals. Some wise individuals (especially women) were highly emotionally expressive and some (especially men) showed very little emotional expressiveness. The finding of *less reported life dissatisfaction* (but no more life *satisfaction*) among the wiser individuals suggested that, despite not scoring lower on the neuroticism scale (and hence capable of experiencing negative emotion), wiser people did not succumb to despair. The qualitative analyses supported this contention, suggesting that the wise people did their fair share of struggling with difficult existential issues and integrating negative experiences and emotions, and seemed capable of transforming these experiences into a generally hopeful (though not by any means Pollyannaish) perspective. Moreover, they seemed particularly engaged in the experience of creating meaning and purpose from their experience. These various effects held even when a confounding factor such as education was partialled out.

Those who referred themselves as wise had: lower educational levels; lower wisdom scores (indeed, only one was among the top 20 wisdom scorers); higher negative affect/life dissatisfaction scores; lower scores on all three intelligence subtests; more desire for control; and, higher belief in actual control than those nominated by others. Among self-referees, the patterns of correlations were largely the same, with a few exceptions. The only significant difference between nominees and self-referees in pattern of correlations was with educational level; wiser self-referees had a higher level of education than less wise ones.

Similar to the findings of the Max Planck group, Lyster found older people to be among the top scorers on the wisdom criteria (despite lower scores on the fluid measure of intelligence), leading her to conclude that

wisdom shows a different life-span trajectory than other cognitive processes. Lyster, too, found that a great deal of wisdom potential went untapped, even among her "wisest" participants, with the highest score on the wisdom measure being 32 of 63, or 51% of the potential score. Also comparable to the Max-Planck group's findings, wise nominees were disproportionately represented in human service professions, in particular, in advising professions (ministry, mental health, education).

Lyster also hypothesized that wise subjects would report wisdom to be an outcome of experiencing adversity. This hypothesis was not supported, though. Wiser people reported more positive life experiences as precipitants of wisdom. However, she considers the possibility that the events themselves may have been adverse but that wisdom involved a transformation in the understanding of these events that allowed for affirming resolutions. Wise people seemed to be able to find meaning and import in both positive and negative life experience, and used both for transformative experience. Likewise, participants in Lyster's study showed a wide range of emotional responses. What appeared to differentiate the more wise from the less wise was the ability to transform negative experience into life-affirming and growth-affirming experiences. "A quality of affect perceived as `serenity' in which the participants readily expressed both positive and negative emotions with an air of acceptance and tranquility was the most frequently rated emotion for all groups" (Lyster, p. 119). This was especially true for nominees, for whom more than half of the respondents showed this quality. She noted that nominees rarely experienced helpless resignation or hostility. She concluded that:

> experience with significant adjustments and major life changes facilitated a deepening of one's perspective in the form of increasing existential awareness. When asked specifically what they had learned from these experiences, wise people described existential truths such as accepting responsibility for one's choices, becoming aware of the limitations of the self, tolerance for uncertainty, and facing and coming to terms with one's mortality. It could be argued that these existential truths underlie most if not all of the most difficult dilemmas and choices we face in life.... Thus, wise people may be gifted not so much in terms of their intellectual capacity to manage complex problems but in their abilities to see through this complexity to the underlying existential issue at hand, and to reframe the issue in a positive manner. (Lyster, 1996, p. 159)

Similarly, Bacelar (1998) found that life events in themselves do not predict dialectical thinking in an interview about a life dilemma, but rather

they predict the ability to meaningfully engage with and reflect on that experience.

Lyster's qualitative analysis of the responses of the 10 wisest subjects in her study revealed a number of important qualities of wisdom. Significantly, not one of these sages identified wisdom as congruent with giving advice to others, a finding mirrored by Valdez (1994) in a study of 15 Hispanic wise nominees (who placed the giving of care above that of advice). Most of Lyster's sages saw wisdom as having an unobtrusive quality characterized by good listening skills, tact, preserving the relationship, and silent power. Most were reticent to impose their point of view on others and avoided judgmental stances. "A recurrent concern involved awareness of the limitation of the self when attempting to direct others and a restructuring of old assumptions regarding responsibility" (Lyster, 1996, p. 126). Sages preferred to serve as a "sounding board" for others to construct their own viable solutions. "The outcome to such a process may be enhanced understanding and some awareness on the part of the other, in keeping with the view that wisdom acts to foster growth and development" (Lyster, p. 127).

The qualitative analysis also revealed subthemes of humanism and generativity as important to interpersonal relationships, also found in Valdez' (1994) study of Hispanic wise nominees. Additionally, wise people also viewed the following as being important: enriching one's relationships; promoting personal development (e.g., enjoyment of learning); openness to experience (as seen in nondefensiveness, willingness to share experiences, openness to emotions, ideas, and spirituality); and, critical awareness (ability to be open to new ideas and tolerate ambiguity and complexity, without necessarily accepting all at face value). There also was a theme of self-clarity (taking a critical stance about the self, acknowledging and critically evaluating one's prejudices). There was a discernible tendency for wiser individuals to emphasize the importance of embracing one's own negative and positive characteristics, for greater wholeness in the self. Lyster noted that this may be the reason for a lack of difference between sages and their less wise counterparts on the measure of neuroticism, which is heavily loaded with negative emotion. Wise people have learned to view the positive and negative and synthesize them to create a more human, more integrated sense of self, in all its frailty and vulnerability. This allows for openness, nondefensiveness and less judgmentalism, as well as a catalyzing influence of negative emotions. As Joan Erikson (1988) points out, for the virtue of wisdom to develop in later life, one must balance ego integrity with its opposite, despair. A certain amount of despair about the state of the world is realistic and essential for the survival of the species. However, the wise person is not unduly paralyzed, fragmented, or incapacitated by this despair.

Based on rater's reactions to the wiser people, Lyster noted that the wise subjects did not elicit "idealized" reactions or admiration. Rather, the judges were struck by their simple humanity and ability to create a warm, trusting interpersonal environment.

A final theme dealt with the role of experience, with subthemes broad perspective (reflecting on situations with breadth, critically evaluating situations, taking an historical stance) and depth and existential awareness. The existential issues subjects dealt with were: freedom and responsibility (reflecting on one's behavior and choices, taking more active responsibility for choices, being true to one's own needs, etc.); aloneness; meaninglessness; coming to terms with one's own limitations and mortality; and, awareness of uncertainty (inevitability of change, recognition of inability to control the outcome of life events and the freedom that such realization permits). Thus, both Lyster's and the Max-Planck studies support the theoretical conceptualization of wisdom as reflecting an integration of cognitive, affective, and behavioral dimensions to produce a rare but adaptive form of judgment that is conducive to exceptional insight and judgment about important life issues and situations.

Orwoll and Perlmutter (1990) also reported on a study of wise nominees. They found evidence for greater resolution of the ego-integrity versus despair crisis and for a more global perspective among wise nominees than among creative nominees. The wise nominees also scored higher on the same ego integrity measure than non-nominated subjects in other research (Orwoll & Perlmutter, 1990). A number of other researchers have conducted in-depth case studies or interviews with wise exemplars, who show a strong sense of Eriksonian ego integrity (Lofsness, 1994; Rosel, 1988).

Ardelt (1997) studied 82 women and 39 men, ranging in age from 58 to 82, from the Berkeley Guidance Study. She based her operationalization of wisdom on three dimensions: the cognitive, affective, and reflective. Participants were interviewed for a total of four hours at the 40-year follow-up about their social networks, activities, personality and coping. Two teams of raters, all trained clinicians, were employed. One team rated the life styles and life situation of the participants and the other team focused on personality characteristics. Using LISREL analyses, Ardelt (1997) found that wisdom is the best predictor of life satisfaction in both women and men, and that wisdom counteracts a negative influence of age on life satisfaction (i.e., when wisdom is entered into the analysis, the negative relationship between age and life satisfaction loses its significance). Wisdom predicts life satisfaction better than objective life conditions, including physical health, mirroring Bacelar's (1998) and Lyster's (1996) findings that objective conditions are less influential in mature development than how these experiences are interpreted.

Among the limitations of Ardelt's study is a possible lack of specificity in the wisdom measurement. She obtained an exceptionally high correlation between life satisfaction and wisdom (.71 and .70 for females and males, respectively). Therefore, her measure of wisdom may not be empirically distinct from personality dimensions such as life satisfaction. Moreover, it is not clear what the exact causal relationship between wisdom and life satisfaction is: does wisdom result in greater life satisfaction, or vice versa? On the positive side, confirmatory factor analysis resulted in life satisfaction and wisdom falling on separate factors (though, one could question the use of factor analysis in a sample of this size, especially in light of the fact that the factor analysis was performed separately on the male and female subsamples). Moreover, life satisfaction and wisdom showed a different pattern of relationship to objective life conditions, with the former, not the latter, yielding a significant correlation with objective life conditions, thereby suggesting that the two were tapping different aspects of participants' experience.

In a rare longitudinal study of wisdom, Wink and Helson (1997) studied 94 women from the Mills College Longitudinal Study and 44 men who were their partners. The women were tested at ages 21, 27, 43, and 52. The male partners participated in the first and last follow-up assessments, at mean ages of 31 and 56, respectively. At all times of measurement, subjects were administered a battery of personality and cognitive measures, from which Wink and Helson derived measures of practical and transcendent wisdom. Practical wisdom was defined in terms of interpersonal skill and interest, along with insight, clear thinking, reflectiveness, tolerance, and so forth. Transcendent wisdom, which was only measured at age 52, was defined as "abstract (transcending the personal), insightful...[involving]...recognition of the complexity and limits of knowledge, integration of thought and affect, and philosophical/spiritual depth" (Wink & Helson, 1997, p. 6).

Wink and Helson (1997) found nonsignificant correlations between the practical and transcendent measures (at age 52), suggesting that the two represent distinct domains of wisdom-type judgments. Both forms of wisdom were significantly correlated with ego development, insight and autonomy (i.e., healthy self-orientation), and psychological-mindedness scale. In addition, practical wisdom was related to generativity, mentoring, dominance, and empathy, while transcendent wisdom was correlated with Jungian Intuiting-Sensing, occupational creativity, and flexibility. Those women who were psychotherapists scored at a higher level on both forms of wisdom, holding educational level constant, and that wisdom scores increased more over time in psychotherapists than nonpsychotherapists, supporting the Baltes and Associates' contention that expertise in the domain of human affairs

promotes the development of wisdom (rather than wiser people self-selecting into such professions). They concluded that transcendent wisdom tapped more into an attitude of openness to experience, whereas practical wisdom tapped more into an attitude of generativity. One limitation of Wink and Helson's study is that the practical wisdom measure was derived from a pre-existing questionnaire and the transcendent measure was added only at the last wave of measurement. The study was not originally designed to measure wisdom, which is less than ideal for drawing firm conclusions about the construct.

CONCLUSIONS AND LIMITATIONS

IMPLICATIONS FOR PSYCHOLOGICAL WELL-BEING

How does research on wisdom contribute to our understanding of healthy development? There are at least three advantages. First, wisdom researchers have identified an area of cognitive competence that is maintained and possibly even enhanced with age and experience (see Kramer, in press, for an extended discussion of the relationship between wisdom and age). This is especially important with the "graying" of our population. Exploring the conditions under which older people develop and apply highly complex cognitive structures to offset other cognitive limitations provides one avenue for promoting healthy and productive aging. Furthermore, the results of Staudinger and Baltes's (1997) study suggests that older adults benefit even more than younger adults from the results of wisdom-related interventions *and* that older dyads are particularly effective dyads for optimal wisdom performance in socially facilitative groups conditions that promote wisdom. As such, older individuals, especially in cooperative interaction with other older individuals can serve as a resource for society and each other.

Second, and related to the latter issue, wisdom is associated with the kinds of counsel and problem-solving that promotes growth in *other* individuals, whether enacted by mental health professionals or just highly reflective, insightful individuals who show compassionate, but nonintrusive concern for others. Wise people are particularly adept at taking the perspective of others and providing a safe setting in which others can explore their own values, thoughts, actions, and decisions. By all research accounts thus far, it would be a useful skill for society to promote in its citizens because of the generative concern shown by wise individuals and their ability to engage others in an accepting, compassionate manner without judgment.

Third, wisdom has direct benefits to the individual. Perhaps most significantly, wise people struggle with the same range of emotions and human

concerns as anyone else. They do not differ from other members of the population in the degree of anxiety that they show, nor do they necessarily have better objective life conditions than others (and at least one study finds the opposite, at least in terms of self-reported health). They seem capable of finding purpose and meaning in life's turbulent waters, however, and using their negative emotional experiences as catalysts for emotional growth, enriched understanding, and exploration of deeper meanings of human experience. They do not do so in a self-absorbed manner, as evidenced by greater generative concern than their less wise counterparts. They seem to be individuals with a high degree of personal and emotional maturity and depth who are able to see patterns in their experience, and use the knowledge and insight gained to help themselves and others. Consequently, wisdom moreso than objective life conditions predict life satisfaction in old age, or, depending on which study one consults, at least less life dissatisfaction. Thus, wisdom has direct implications for psychological health and well-being during adulthood.

LIMITATIONS

An important consideration in evaluating conceptual and empirical work on wisdom is that, to a certain extent, it is subjective. The wide variety of meanings of wisdom throughout the ages leaves a great deal of room for interpretive creativity. Modern psychologist-derived models of wisdom, for the most part, have emphasized constructs that underlie Western models of psychological health. It may be no coincidence, then, that clinical psychologists score higher on measures of wisdom. Similarly, our lay conceptions of wisdom—and, hence, those we nominate as wise—may reflect such mental health constructs as filtered into the popular literature and culture. Our models of wisdom tend not to focus on everyday, practical reasoning, nor, for the most part, on spiritual reflection, both of which have been featured in some historical conceptions of wisdom. As defined by our psychological models, actualized wisdom is a rarity, especially with respect to the cognitive processes associated with it. In evaluating the research on wisdom, I am struck with the following question: What are the "wise" nominees in Lyster's and other studies who do not score as "wise" on our measures, if not wise? Wink and Helson's (1997) study suggests the very real possibility that more than one kind of wisdom exists, with distinct developmental antecedents.

Because of its inherent subjectivity, wisdom also might be seen as embodied in relationships rather than manifested intrapsychically. It might reside in the "eye of the beholder" and, hence, defy attempts at absolute definition and measurement. Supporting this contention, Lyster (1996) found a relationship between the various scores of nominators and nom-

inees, suggesting that nominators chose wise exemplars who possessed qualities and values that they also possessed. She also hypothesized that the wise nominees would produce higher actual scores on these measures than the nominees (i.e., that we choose people we can "look up to" as wise). Indeed, she found partial support for both hypotheses, with wise nominees being, on the average, older and more dialectical in their thinking than nominators and with a relationship between cognitive complexity scores of nominators and nominees (that is, cognitively more complex nominators chose cognitively complex wise exemplars and cognitively less complex wise nominators chose wise exemplars with less cognitive complexity than the former wise nominees).

Staudinger and Baltes' (1997) work suggests that studying wisdom as an intrapsychic phenomenon also excludes the important facilitating effects of social interaction, and it thus may underestimate the functional capacity for wisdom performance. They found that dialogue with others whose advice is generally valued and sought—whether in actual social interaction, followed by a brief time to reflect on the discussion, or through internal representations of such dialogues (i.e., imagining what the valued other person would say)—promotes higher wisdom performance than nonreflected discussion with the valued person about a dilemma, simply thinking a problem through, or standard individual assessment, thereby suggesting that the ability to represent multiple perspectives facilitates wise judgment.

CONCLUSION

What can be determined from these studies on wisdom and how do these findings contribute to our understanding of mental health? As defined by modern psychological theory, wisdom involves a highly developed form of thinking that is characterized by relativistic and dialectical reasoning, as well as exceptional insight into human dilemmas. Sages recognize their limitations and human limitations in general, and they are not imposing of their views on the other persons. The forms of thought they manifest seem to be relatively rare, but are more often seen among mature and/or experienced adults than younger or less experienced (in human affairs) adults. Wisdom cognition does not occur in isolation from emotion or action, however. The most influential factor in the development of wisdom appears to be openness to experience and different modes of representing experience. Wisdom appears to stem from a capacity to reflect on and grapple with difficult existential life issues. Wise people are not Pollyannaish. They are willing to explore the shadow side of life and are capable of expressing the wide array of human emotions in such a way as to derive meaning. This fosters a general sense of hopeful-

ness. They seem able to first embrace and then transcend self-concerns to integrate their capacity for introspection with a deep and abiding concern for human relationships and generative concern for others. Consequently, they reflect global concerns in their understanding of human issues and also project a sense of ease with themselves and others, as well as warmth and compassion. Consequently, wisdom—as currently defined and measured in Western Psychology—appears to have benefits both for the mental health and well-being of both the sage and those who are impacted by the sage's actions.

REFERENCES

Achenbach, W. A., & Orwoll, L. (1991). Becoming wise: A Psycho-gerontological interpretation of the book of Job. *International Journal of Aging and Human Development, 32,* 21–39

Ardelt, M. (1997). Wisdom and life satisfaction in old age. *Journal of Gerontology, 52B,* P15–P27.

Bacelar, W. T. (1998). *Age differences in adult cognitive complexity. The role of life experiences and personality.* Doctoral Dissertation, Rutgers University, New Brunswick, NJ.

Baltes, P. B., & Smith, J. (1990). Toward a psychology of wisdom and its ontogenesis. In R. J. Sternberg (Ed.), *Wisdom. Its nature, origin, and development* (pp. 87–120). Cambridge, England: Cambridge University Press.

Birren, J. E., & Fisher, L. M. (1990). The elements of wisdom: Overview and integration. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origins, and development.* Cambridge, England: Cambridge University Press.

Brent, S. B., & Watson, D. (1980, November). *Aging and wisdom: Individual and collective aspects.* Paper presented at the third annual meeting of the Gerontological Society, San Diego, CA.

Clayton, F. (1982). Wisdom and intelligence: The nature and function of knowledge in the later years. *International Journal of Aging and Human Development, 15,* 315–321.

Clayton, V., & Birren, J. E. (1980). The development of wisdom across the life-span: A re-examination of an ancient topic. In P. B. Baltes & O. G. Brim, Jr. (Eds.), *Life-span Development and Behavior* (Vol. 3, pp. 103–135). New York: Academic Press.

Dittmann-Kohli, F., & Baltes, P. B. (1990). Toward a neofunctionalist conception of adult intellectual development: Wisdom as a prototypical case of intellectual growth. In C. Alexander & E. Langer (Eds.) *Higher stages of human development* (pp. 54–78). New York: Oxford University Press.

Erikson, J. M. (1988). *Wisdom and the senses: The way of creativity.* New York: W. W. Norton

Holliday, S. G., & Chandler, M. J. (1986). *Wisdom. Explorations in adult competence.* Basel, Switzerland: Karger.

Kramer, D. A. (1990). Conceptualizing wisdom: The primacy of affect-cognition relations. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origins, and development* (pp. 279–313). Cambridge, England: Cambridge University Press.

Kramer, D. A. (in press). The ontogeny of wisdom in its variations. In J. Demick & C. Andreoletti (Eds.), *Handbook of Adult Cognition.* New York: Kluwer Academic/Plenum.

Labouvie-Vief, G. (1990). Wisdom as integrated thought: Historical and developmental perspectives. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origin, and development* (pp. 52–83). Cambridge, England: Cambridge University Press.

Lofsness, J. K. (November, 1994). Application of a model of wisdom to one life's experience. Presented in D. A. Kramer (Organizer), *Wisdom in meaningful life contexts*. Symposium presented at the 47th annual meetings of the Gerontological Society, Atlanta, GA.

Lyster, T. L. (1996) *A nomination approach to the study of wisdom in old age*. Doctoral Dissertation, Concordia University, Montreal, Quebec, Canada.

Meacham, J. A. (1990). The loss of wisdom. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origins, and development* (pp. 191–211). Cambridge, England: Cambridge University Press.

Moody, H. R. (1983, November). *Wisdom and the search for meaning*. Paper presented at the 36th annual meetings of the Gerontological Society of America, San Francisco, CA.

Orwoll, L. & Perlmutter, M. (1990). The study of wise persons: Integrating a personality perspective. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origins, and development* (pp. 160–177). Cambridge, England: Cambridge University Press.

Pascual-Leone, J. (1990). An essay on wisdom: Toward organismic processes that make it possible. In R. J. Sternberg (Ed.), *Wisdom: Its nature, origins, and development* (pp. 244–278). Cambridge, England: Cambridge University Press.

Rosel, N. (1989). Clarification and application of Erikson's eighth stage of man. *International Journal of Aging and Human Development, 27*, 11–23.

Smith, J., Staudinger, U. M., & Baltes, P. B. (1994). Occupational settings facilitating wisdom-related knowledge: The sample case of clinical psychologists. *Journal of Consulting and Clinical Psychology, 62*, 989–999.

Staudinger, U. M. (1996). Wisdom and the social-interactive foundation of the mind. In P. B. Baltes & U. M. Staudinger (Eds.), *Interactive minds: Life-span perspectives on the social foundation of cognition* (pp. 276–315). New York: Cambridge University Press.

Staudinger, U. M., & Baltes, P. B. (1997). Interactive minds: A facilitative setting for wisdom-related performance? *Journal of Personality and Social Psychology, 71*, 746–762.

Staudinger, U. M., Lopez, D. F., & Baltes, P. B. (1997). The psychometric location of wisdom-related performance: Intelligence, personality, and more? *Personality and Social Psychology Bulletin, 23*, 1200–1214.

Staudinger, U. M., Smith, J., & Baltes, P. B. (1992). Wisdom-related knowledge in a life review task: Age differences and the role of professional specialization. *Psychology and Aging, 7*, 271–281.

Sternberg, R. J. (1985). Implicit theories of intelligence, creativity, and wisdom. *Journal of personality and social psychology, 49*, 607–627.

Sternberg, R. J. (1990, Ed.), *Wisdom: Its nature, origins, and development* (pp. 244–278). Cambridge, England: Cambridge University Press.

Taranto, M. A. (1989). Facets of wisdom: A theoretical synthesis. *International Journal of Aging and Human Development, 29*, 1–21.

Valdez, J. M. (1994). Wisdom: A Hispanic perspective. *Dissertation Abstracts International, 54–12, Section B*. 6482.

Wink, P., & Helson, R. (1997). Practical and transcendent wisdom: Their nature and some longitudinal findings. *Journal of Adult Development, 4*, 1–15.