

**Wisdom**  
Its nature, origins, and development

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## 6 Wisdom in a postapocalyptic age

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*Michael J. Chandler with Stephen Holliday*

### A disquieting suggestion

Alasdair MacIntyre begins his provocative book *After Virtue* (1981) with what he refers to as “a disquieting suggestion.” He asks us to imagine that in some previous time, now lost to memory, the natural sciences suffered a monumental catastrophe, perhaps at the hands of some know-nothing political movement, in which laboratories were burned down, books and instruments destroyed, and scientific teaching abolished. Much later, according to this fictional account, other more enlightened people undertake the task of rebuilding science, although they have largely forgotten what it was. In doing so, they salvage the charred remains of half-chapters from books, single pages from articles, and instruments whose use they no longer understand. Out of this patchwork of unrelated fragments they struggle to reembody what was once physics and chemistry and biology. Like a cargo cult filled with persons with names like “handle with care” or “this side up,” the would-be scientists of this scavenger society learn various incantations about “neutrinos” and “atomic weights,” but nobody, or almost nobody, has any grounds for even suspecting that such sloganeering does not sum to the actual doing of natural science in any proper sense at all. That is, the fragmented thinking of the persons living in such a disordered culture would need to be numbered among the symptoms of the disaster whose consequences they were trying to overcome, and as a result, the magnitude and perhaps even the very occurrence of the catastrophe they had suffered would inevitably prove invisible to them.

The point that MacIntyre wishes to advance through his account of this imaginary world inhabited by fictitious pseudoscientists blind to their own fate is that in the actual contemporary world we inhabit our own conception of morality is in the same state of grave disorder as the conception of natural science in the imaginary world he describes. Although he does not propose that the earlier fabric of some more coherent moral order actually underwent precisely the same salutary collapse described in his fictional account, he does seriously wish to suggest that something amounting to such a catastrophe did unfold over a much longer period of time, leaving us

with a contemporary conception of morality that has been fragmented to the point that we no longer have the moral means to recognize the disaster that has befallen us.

My own reasons for repeating this cautionary tale are much the same in form if not in content and are intended to prepare the way for a similar line of argument regarding our contemporary conceptions of knowledge and what it could possibly mean to be wise. In a way that is intended to parallel MacIntyre's account of the collapse of a once more inclusive and more integral moral order, I will argue, following Habermas (1970), that our modern conception of the knowing process is a much fragmented and highly restricted version of a once much more elaborated conceptual scheme that held a meaningful place for a whole panoply of possible knowledge forms and provided real room for both the notion of wisdom and the existence of wise persons (Marcel, 1951).

Both Marcel (1951) and, in a more general form, Habermas (1970) have argued that the intellectual conditions of modern life have fostered a dismissive attitude toward alternative modes of knowing and sponsored a tendency to equate all legitimate knowledge with the products of scientific activity. Although not easily summarized, the essence of Habermas's position on this topic is that the knowing enterprise requires being understood as a pluralistic undertaking mediated by what he characterizes as technical, practical, and emancipatory knowledge-constitutive interests. Technical interests, which he describes as mediating our understanding of natural events, are described as having their presentific roots in attempts at mastery over nature through labor and as extending in modern times into a science that is concerned with predicting and controlling natural events. Practical interests, by contrast, are portrayed as those cognitive concerns primarily at work in the intersubjective domain focally concerned with the maintenance of social and communicative practices and commonly manifested in the study of history and in the arts. Finally, emancipatory interests are seen by Habermas as being concerned with freedom that is achieved by transcending both the preoccupations with biological preservation that mark technical interests and the dependency on social-historical configurations that mark practical interests. Emancipation, then, is portrayed as a movement to free oneself from both the arbitrary forces of nature and the social structures that limit self-understanding.

Like MacIntyre, I will undertake to trace responsibility for the collapse of this once more inclusive view to a dramatic turn of historical events that largely abolished much of what the concept of knowledge was formerly understood to include. Similar claims will also be made that because this revolutionary change occurred before, or largely before, the founding of an academic psychology, most of the ensuing accounts of the knowing process generated by the discipline have derived from what were already highly restricted forms

of conceivable knowledge, rendering our own sustaining hand in this affair largely invisible.

Finally, it needs to be pointed out that a prerequisite for understanding the disordered state of MacIntyre's imaginary world, and by implication our own, was a history that had to be written in three distinct stages. In the imaginary case of the natural sciences the first stage was that in which such sciences flourished, the second that in which they suffered catastrophe, and the third that in which they were restored but in a damaged and distorted form. The argument to be pursued here necessarily follows a similar itinerary. In brief, Stage I in this train of real events is held out as largely identical with the history of philosophy, at least until the threshold of the 19th century. During this protracted period elaborating the many possible forms of conceivable knowledge was philosophy's primary task and the study of wisdom its characteristic endeavor. Stage II, as philosophers of history such as Marcel (1951) and Habermas (1970) have made us aware, was made up of a string of intellectual disasters, perhaps due in part to "capitalism" or the industrial revolution, and brought to a fine point by a variety of "positivistic" philosophers of science whose legislative brand of "scientism" (Habermas, 1970) succeeded in largely ruling out of court all possible forms of knowledge save a neutered brand of technical expertise that renders the concept of wisdom essentially meaningless. By this account we are currently living through the dark ages of Stage III, and our difficult task is to somehow bootstrap ourselves out of our present truncated conception of knowledge and into a position that allows for the possibility of understanding the proper place of wisdom in the process of successful aging. The pages that follow are meant to contribute to this bootstrapping operation.

#### **An orientation to the present chapter**

The existence of this volume and numerous other recent articles on the same subject stands as testimony to a felt need on the part of many life span developmental psychologists. What is generally experienced as missing by all of these authors is some serviceable way of considering the optimistic prospect that there might still be room for intellectual development beyond adolescence. One contingent of this new work force is busy with the task of trying to identify possible cognitive changes in the postadolescent period immediately following the consolidation of the familiar structures of formal operational reasoning (e.g., Commons, Richards, & Armon, 1984).

A second group, whose efforts are the principal subject of this chapter, has been more concerned with trying to pin down some optimal end state to successful intellectual development by salvaging from the ashes of an older but now derelict intellectual tradition remnants of what might still be known

about becoming wise. These rehabilitative efforts have commonly pursued one or another or both of two approaches. The first amounts to a kind of intellectual archaeology concerned with gleaning through the vestiges of an older wisdom tradition that rose and fell largely before psychology's emergence as a separate discipline. Unlike Macintyre's hypothetical case, the products of various earlier efforts to explicate the meaning of wisdom were not in fact literally destroyed but only removed from lists of recommended readings. Consequently, those concerned with rehabilitating such vestigial ideas are free to rummage through stacks of largely noncirculating volumes and dust off what earlier generations once had to say on the subject of wisdom. The second of these search strategies is more empirical and arises as an option as a consequence of the fact that there tends to be more inertia in the corpus of common languages than is true of the lexicons of scientific discourse, which are often subjected to a seasonal house cleaning. One consequence of this lack of parallelism is that although early psychologists worked hard to root out of their technical vocabularies what had come to be perceived as a thicket of unconsciously vague central state notions, persons on the street did not and so went right on talking about wise actions and wise people in general ignorance of the fact that doing so was no longer fashionable among those moving in presumably more sophisticated scientific circles. As a result, there are good reasons to assume that still sedimented within the common language are ideas about what it might mean to be wise that can be profitably mined by those newly interested in recovering some systematic understanding of the concept.

Some part of my own research efforts, and those of my colleague Stephen Holliday, have included attempts to pursue these two lines of possible inquiry by both rummaging through older writings on the subject of wisdom and developing systematic strategies for querying ordinary people about what they understand wisdom to mean. A progress report on these efforts will make up a large part of the details of this chapter. Because there is nothing especially unique about deciding to look things up or ask when you do not know, however, it should come as no surprise that other investigators (e.g., Brent & Watson, 1980; Clayton & Birren, 1980; Dittmann-Kohli & Bales, 1985; Meacham, 1983; Thorngate, 1981) have adopted much the same research strategy by also attempting to get at what earlier experts and contemporary laypersons have judged to be prototypically wise. Some comparison of our own findings with those of others involved in this same enterprise consequently is required. In carrying out this comparative analysis, special attention will be focused on the recent work of Bales and his Berlin colleagues (e.g., Bales, Smith, Staudinger, & Sowarka, in press; Dixon & Bales, 1986), both because their research program has been particularly ambitious and because it has been used to promote an account of wisdom importantly different from the one to be advocated here.

### Stage I: a backward glance at wisdom's golden age

While modernity, at least Western modernity, has taken a rather jaundiced view of wisdom, seeing the classic quest after its meaning as a kind of fool's errand, best left to those in the business of compiling almanacs and penning messages for fortune cookies, quite the opposite was true during the centuries immediately preceding the emergence of psychology as an independent discipline, an extended period during which the study of wisdom was widely understood as the primary task of philosophers and an intellectual obligation upon all thoughtful persons. In an earlier backward glance into this previous intellectual tradition Holliday and I (Holliday & Chandler, 1986) distinguished and attempted to summarize three closely interwoven strands of thought concerned with the fundamental questions of: What can I know; what ought I do; and what may I hope? By this earlier account, the first and most widely discussed of these questions, which focuses primarily upon matters of learning and erudition, gradually became a primary concern of professional philosophers, who came to equate wisdom with various heady, theoretically oriented enterprises aimed at achieving abstract insights into what were imagined to be the formal structures of the world. Although also initially committed to addressing questions pertaining to the ability to judge rightly in matters related to prudent conduct and to the setting of virtuous goals, philosophic interests in these pragmatic and emancipatory matters progressively came to take a back seat and were eventually subordinated to the goal of developing formal investigatory systems. There still survive, of course, fragments of even older religious and secular wisdom traditions that attempt to convey, through various parables, proverbs, and wise sayings, distilled answers to more pragmatic and value-laden questions concerning matters of hope and correct living. As Marcel (1951) has pointed out, however, these old saws gradually fell into disrepute in a modern technical world that has as its primary aim the rapid development of circumscribed skills and techniques capable of increasing our dominance over the natural world.

Taken together, these historical trends all but guaranteed the modern eclipse of the notion of wisdom. Abstract philosophic concerns about wisdom, defined as a search for underlying essences, came to have little place in a world where all such essences had been happily traded in for more manageable and measurable surface manifestations. By the same token, once highly prized advice about likely routes to human happiness or appropriate means to good ends came to sound cliché, worn, and platitudinous in a contemporary world relentlessly committed to a form of technical progress viewed as independent of all value considerations. Wisdom, then, by this account, was already "on the ropes" by the middle of the past century. A further account of the final killing blows that eventually floored the classic wisdom tradition is the subject of the section to follow.

### Stage II: a description and postmortem of wisdom's sudden demise

Despite, then, what amounts to more than 2,000 years of written history in which the concept of wisdom has played a central part, the notion appears to have essentially vanished from the modern scientific scene. In psychology, at least, this disappearance has been all but complete. One measure of this total turnaround can be had by checking the indexes of psychological texts written in the past 50 years, most of which skip blithely from "WISC" to "wish fulfillment" without so much as a fare-thee-well to "wise" or "wisdom." Similarly, neither the *Psychological Abstracts* nor any of the several popular dictionaries of psychological terms contain any mention of "wisdom" as a category of possible interest. What seems required in the face of this sudden disappearance is a kind of coroner's inquest aimed at unearthing whatever MacIntyrean disaster is responsible for having erased all traces of the notion of wisdom from the modern register of legitimate scientific concerns.

Without presuming this analysis to be exhaustive, at least three deeply interrelated factors can be identified that together may help to account for this modern eclipse of the study of wisdom. Central among these factors has been the late 19th and early 20th century tendency to equate the whole of human knowledge with the sum of those empirical facts obtained through applications of the methods of natural science inquiry. From the monopolistic vantage of this positivistic view of science only direct perception can lead to legitimate knowledge, and any pretense that things might be otherwise tends to be dismissed as misguided. The general effect of this insistence that all clear and distinct knowledge must coincide with those products of objective inquiry generated according to the logic of science has been to immunize modern thought against the possibility that wisdom might still somehow count as a legitimate knowledge form.

A second factor, largely derived from the first, which has served to all but guarantee that the concept of wisdom would play only the most marginal of roles in modern thought, has been 20th century psychology's romance with behaviorism. As Brunswik (1952) and many others have made clear, vague central state notions such as wisdom were just the sort of excess baggage held responsible for philosophy's announced failure to accompany the natural sciences into the apparent progress of the 20th century (Holliday & Chandler, 1986). Wisdom and other similarly "metaphysical" central state notions, once thought to occupy procedurally inaccessible regions of the body, consequently were accorded the status of so many indwelling spirits (Skinner, 1953) and permanently struck from the list of authorized research topics.

Finally, the technological era ushered in by the industrial revolution also promoted a penchant for machine metaphors that has seriously undermined the credibility of wisdom or any other positive construct historically associated with persons of advanced age (Marcel, 1951). Planned obsolescence is an

accepted standard of our modern industrial age, and any concept that threatens to promote the idea that an otherwise derelict population of elderly persons might somehow exhibit progressive forms of psychological functioning is seen automatically as a kind of fairy story.

While the set of forces outlined in the preceding have summed to something amounting to disaster for the classic wisdom tradition, it also is important to temper these fatalistic claims by pointing out that the rumors describing wisdom's premature demises may have been exaggerated. Throughout psychology's history there have always been a few (e.g., Erikson, 1968) for whom the concept of wisdom functioned as a kind of theoretical anchor point. More recently, however, psychologists and others in growing numbers also have come to doubt the correctness of any view that automatically equates knowledge with the empirical-analytic truths of science. Such critics are perhaps to be forgiven if they question the conclusion that all of the seemingly untrackable problems of contemporary life will be solved by still another technological breakthrough and continue to hold out some hope that there are still deeper and wiser ways of understanding these problems.

While the contributor list of this volume is largely made up of persons optimistic enough to spend energy attempting to breathe life back into the body of the failing concept of wisdom, the potential danger that awaits all such resuscitative efforts, if we are to continue to take instruction from MacIntyre's cautionary tale, is that precisely the same forces that promoted the original eclipse of this notion will continue to operate to spoil any such restitutive measures. That is, there is a real and present danger that without some fundamental overhaul in what we are prepared to regard as possible knowledge forms, the new work in this area will get off on the wrong foot by falling victim to a kind of assimilation bias that reduces wisdom to some already familiar and properly sanitized psychological construct such as crystallized intelligence (Cattell, 1971; Horn, 1970) or technical expertise (Balkes et al., in press). As with members of other such cargo cults, our task in coming to understand what wisdom might entail is unlikely to be best accomplished by simply deciding that it is a synonym for some charred psychometric fragment left over from the scorched earth practices of an earlier positivistic science. Attempting to decide whether this is so is the primary focus of the following section, which takes up the task of exploring existing Stage III efforts to salvage and rebuild upon an earlier wisdom tradition.

### Stage III: the new wisdom revival

Whatever the prior status of an earlier wisdom tradition, the future shock that has accompanied the technical progress of the last century has served, according to critical theorists such as Habermas (1970), to stun us into the false expectation that all hopes for solutions to society's problems lie along

a path paved with empirical facts. Because such facts would appear best assembled by a youthful breed of psychometric athletes especially skilled at inventing such technical solutions, little hope is held out for the prospect that elderly persons, best known for their preoccupation with a discarded past, are likely to contribute to this endeavor. Wisdom, if it has retained any meaning at all, is generally thought best understood as a kind of vestigial organ of the mind, still relevant only within those few remaining folk cultures that have not as yet joined the modern technological revolution. This, then, is how things have been and would likely have remained had it not been for certain unanticipated perturbations in the population growth curve that have made aging a growth industry and added new legitimacy and new incentives to the search for some up side to the otherwise downward spiral of getting old. As a consequence of this and perhaps other less pecuniary climatic changes, the intellectual atmosphere surrounding gerontologic studies has taken a recent turn for the best. Spurred along by this newly recovered interest in "successful aging" (Baltes, 1987), the once moribund topic of wisdom recently has streaked ahead to become one of the most promising dark horses in adult development's stable of new constructs. In the place of the previously sanctioned view that older persons are somehow intellectually derelict, such changes have prompted a variety of contemporary authors to reconsider the prospect that getting older need not necessarily mean getting worse and to begin to search out ways in which the intellectual functions of the elderly might be different from and yet not automatically inferior to those practiced by younger persons.

One of the first steps taken in this new enterprise has involved various efforts to hold up to more careful methodologic scrutiny all of those older data that had contributed to the conviction that psychometric intelligence was on some automatic slow slide into senility. Armed with their newly found optimism on the behalf of the elderly and prompted by their suspicion that the typically substandard test performance of older persons might prove to be an artifact of poorly conceived measurement and sampling practices, this new breed of life span developmental psychologists began to amass evidence that eventually demonstrated that seniors typically retain at least a subset of their intellectual faculties and often only appeared to become enfeebled because of biased testing practices and invidious cohort comparisons (Labouvie-Vief & Chandler, 1978). While clearly this was progress, it was recognized to fall importantly short of constituting any positive endorsement of the prospects of getting old. What seemed required instead of, or in addition to, these still apologetic findings was some new line of evidence capable of making the case that there might be intellectual advantages to as well as compensations for getting older. Enter wisdom, stage left.

The general prospect that getting wise might prove to be that good intellectual thing available to persons of a "certain age" but not to their junior

counterparts was a natural, even for those of us living through a historical period in which wisdom, along with God and other such arcane things, had been declared officially dead. Wisdom, or what we remember of it, was known to occasionally come out of the mouths of babes, but more generally, if it was to appear at all, it was meant to especially characterize those who already had lived for a very long time, and so the prospects for this line of reasoning have seemed especially good. The problem, of course, is that if Macintyre is right, we have not only forgotten what it might mean to be wise, and largely forgotten the intellectual disaster that brought us to this know-nothing state, but are also cognitively poorly prepared to recognize an act of wisdom even if confronted with it directly. Consider the following hard cases:

1. Washed up upon an otherwise pristine shore an isolated cult of postmodern psychologists stumbles upon a crate of bumper stickers saying things like "you're not getting older, you're getting better" and "wisdom is never having to say your senile." Much later representatives of the religion founded upon these castaway items make a bid to infiltrate some learned society concerned with successful aging, and we are cast in the role of sergeant at arms, charged with the task of blocking these interlopers at the door; change of scene.
2. This time it is Polonius undertaking to advise us about how we should live. "To thine own self be true" he suggests, followed by "Neither a borrower nor a lender be" (*Hamlet*: Act I, Scene III) and still other worn clichés and tired platitudes that may simultaneously express enduring truths about the human situation (Kekes, 1983).
3. Finally, Tolstoy's (1974) Ivan Ilyich, on his deathbed, is filled with terminal self-doubt but skillful in the performance of his official duties until the end: cheerful, worldly, sociable, clever, expert Ivan, tragically uncertain that his life was really a life worth living.

Clearly, the problem is in knowing how to decide. Are Ivan and Polonius actually wise, or is it that Ivan is to be pitied and Polonius simply tolerated as a fool because he has only learned to say all the things a wise person might say on a more auspicious occasion? Ivan certainly knows, as John Meacham's (1983) definition of wisdom requires, that he has failed to understand and so might qualify as wise by that negative standard. Similarly, Polonius, although obviously ignorant about certain matters, is still a specialized expert, full of technically detailed and hard-won knowledge about the pragmatics of living, and so might make it under the definitional wire of wisdom currently being promoted by Baltes and his colleagues (i.e., Baltes et al., in press; Dixon & Baltes, 1986). Shakespeare and Tolstoy, both of whom coincidentally lived through historical periods less blind to the possibility of wisdom than our own, would of course be disappointed in us for missing the point of their stories, but still by some current criteria Ivan and Polonius do legitimately qualify.

The cargo cult of would-be life span psychologists is a harder case still. The problem is that these devotees do not claim to be personally wise but only to have empirically stumbled upon evidence regarding wisdom's true meaning.

What needs to be decided here is whether or not they got it right. While we may not be especially impressed by the folsam and jetsam evidence upon which they stake their claims, there is nothing especially unusual about this since theorists of different persuasion rarely have much respect for evidence said to support conclusions different from their own. What we are left with, then, as is almost always true, is the responsibility for bringing forward a more persuasive set of data than what is otherwise casually carried in by the tide.

### Contemporary wisdom research

Almost without exception the handful of investigators who have undertaken to get some fix upon the possible meaning of wisdom have followed a common course by undertaking to resurrect whatever residual knowledge may be sedimented within the common language conceptions of ordinary persons by carrying out some form of survey of their opinions. Clayton and Birren (1980), for example, used a multidimensional scaling procedure in an effort to identify factors underlying common perceptions of wisdom. Brent and Watson (1980) asked their subjects to describe wise people and then undertook to group the attributes named into related clusters. Holliday (1981) employed common language Q-sort items that subjects were asked to distribute over a set of target persons labeled as simply "old," "intelligent," or "wise." Finally, both the Berlin group (i.e., Baltes et al., in press) and Holliday and Chandler (1986) capitalized on categorization theory models (Rosch, 1975) and prototype analyses as techniques for soliciting information about the ordinary ways in which persons distinguish wise individuals from members of other closely adjoining categories.

Although, as one would naturally expect, the various samples of individuals studied and the various survey techniques employed by these several groups of investigators did not generate perfectly identical lists of descriptors, the more impressive fact is the degree of actual overlap that was obtained. Considered on an item-by-item basis there is little reason to suspect that the subjects of these various studies would have found very much to disagree with one another about, which, of course, is as it should be if there really exists some discriminating and prototypically well-organized conception of what it means to be wise.

Where these several studies do importantly differ is with regard to the ways in which these first-order data are imagined to somehow "organize themselves." A simple head count of the number of importantly different dimensions or clusters or factors these various groups have turned up is somewhat instructive in this regard. Baltes and his colleagues (i.e., Baltes, Dittmann-Kohli, & Dixon, 1984; Baltes et al., in press; Dixon & Baltes, 1986; Smith, Dixon, & Baltes, 1989; Sowarka, 1987) manage to fit their data to a two-factor or "dual process" model concerned with the "mechanics" as opposed

to the "pragmatics" of intelligence. Clayton and Birren's (1980) data indicated three distinct clusters of attributes that defined for them what are cognitive, affective, and reflective dimensions of wisdom. Brent and Watson's (1980) data identified four clusters of attributes they labeled person-cognitive, practical experiential, interpersonal, and moral-ethical. Finally, Holliday and Chandler (1986) report a total of five distinct factors (i.e., exceptional understanding, judgment and communication skills, general competence, interpersonal skills, and social unobtrusiveness) but go on to locate these item clusters along three dimensions they relate to Habermas's (1970) model of technical, practical, and emancipatory knowledge-constitutive interests.

The empirical generalization easily afforded by these several contrastive claims is that it will likely prove always to be the case that there are exactly as many factorially distinct solutions to the structure of wisdom as there are investigative teams at work on the problem. Immediately troublesome as all of this may seem, no one who is at all familiar with the soft and interpretive side of various formal and informal data-clustering techniques is likely to come away too surprised that Baltes and his colleagues, who take their lead from Cattell and Horn's notions of "fluid" and "crystallized" intelligence, should be drawn to a two-factor solution, whereas Holliday and Chandler, whose work betrays a certain snake fascination with Habermas's tripartite model, should eventually settle upon a three-dimensional solution.

Much more meaningful than any such numbers game is a harder question concerning the extent to which the interpretive efforts of these various investigative groups need to be understood as somehow symptomatic of a damaged and distorted form of understanding brought on by the earlier eclipse of our lost wisdom tradition. That is, if there is any inherent rightness to the picture of wisdom's rise and fall from grace painted in earlier sections and if Macintyre's "disquieting suggestion" has relevance to our own circumstances, then it would likely follow that even the best of our current efforts to rehabilitate the concept of wisdom all run the serious risk of mistaking what it means to be wise for some limited and technologic brand of knowing that is more a part of the disease than the cure. In an effort to evaluate this dark possibility, the section that follows undertakes a conceptual analysis of the impressive body of work on wisdom now generating from Berlin's Max Planck Institute, not because there is reason to suspect that these investigators are more at risk to mistake diseases for the cures than is anyone else, but because the sheer size of their ongoing effort makes them the best available test case.

### The "dual processing" model

The wisdom project of Baltes and his co-workers has involved two lines of empirical research. The first of these, already discussed briefly in the preceding section, concerns people's understanding of the concept of and their beliefs

about the salient characteristics of wisdom and wise persons. The second involves initial attempts to specify behavioral indicators of wisdom and to investigate wise judgment in the context of discourse about difficult life problems (Bates et al., in press). Both of these aspects of their project are taken up briefly in this section using, when appropriate, the Holliday and Chandler (1986) study as a foil.

In both of these lines of research the work of the Berlin group is informed by what they refer to as a "dual-process framework of intelligence," in which what they call the knowledge-based "pragmatics" of intelligence are juxtaposed with what they take to be its basic "mechanics" (Bates, 1987; Dixon & Bates, 1986). In striking this primary dichotomy these authors explicitly draw upon the earlier Cattell-Horn theory of crystallized and fluid intelligence (Cattell, 1971; Horn, 1970) while still making often subtle distinctions between these two models. Based upon their own and others' earlier research, they concede from the outset that younger persons typically display more talent than do older individuals on standard measures of the "mechanics" of intelligence and so are obliged to stake all of their claims about what wisdom might mean on the residual category of pragmatics. Off on this foot, they alternatively define wisdom as either the ability "to exercise *good* [emphasis added] judgment about important matters of life" (Smith, Dixon, & Bates, 1989) or as a specialized form of old age intelligence (Bates, 1984) involving *expertise* in a domain having to do with the "fundamental pragmatics of life" (Bates et al., in press). For good reasons, no formal attempt is made to chart the limits of this domain, but as a way of beginning, it is said to encompass knowledge about the variations and conditions of life span development, human nature and conduct, life tasks and goals, social and intergenerational relationships, and life's uncertainties. Persons who traffic in this domain in ways that reflect wisdom are said to do so because they satisfy the "sum-mative" criteria of showing rich factual and procedural knowledge and of approaching uncertain matters in ways that are both contextualized and relativized.

As these authors point out, "There are many ways of carving up the conceptual space of intelligence, and all are more or less useful" (Dixon & Bates, 1986, p. 221). On the basis of similar generous sentiments, there is no special quarrel to be had here with the usefulness of this dual process model, particularly if it is judged, as it has a right to be, on its success at stimulating research. The real concern that does remain has more to do with the question of whether there is any room within such an interpretive framework for any kind of followable or familiar conception of wisdom as it is popularly understood.

So long as they are reasonably clear and consistent, people are, of course, in some sense free to use words such as *wisdom* in any way they like; in just the same way as they can, if they choose, name their children things like

"handle with care" and "this side up." On these grounds Bates and his colleagues are at least as clear and consistent as anyone else working on this thorny problem and so perhaps should be left to go about their business as they see fit. If, however, MacIntyre's cautionary tale has relevance here, it is important to ask whether a model whose key concepts are "expertise" and "specialization" (Dixon & Bates, 1986) also leaves a meaningful place for concepts such as wise and wisdom as ordinarily understood. In the postapocalyptic world left over after wisdom's mid-19th century demise, numerous things still remain possible. Those living through this neopositivistic period:

1. are still free to amass "rich stores of factual and procedural knowledge" (Bates et al., in press);
  2. are licensed to accumulate "elaborate repertoires" of "action plans, scripts and heuristics" useful for "speeding up" their "production systems" (Smith et al., 1989);
  3. are allowed to become "expert" in "specialized" solutions to well-structured problems (e.g., typing) (Bates, 1987); and
  4. may even learn to cast appraising (but not truly evaluative) judgments such as "this is a *good* (i.e., sound, effective, practical, action-guiding) instance of that" (Bates et al., in press).
- Best of all, they are still in the running to:
5. become "world record" holders in areas where they are not otherwise pressed by more youthful contenders (Bates et al., in press).

Were it not for the puzzling fact that the doing of all of these technical, expert, and specialized things was being promoted as the new definition of wisdom, the open question would remain – can such persons still become wise? Ivan Ilyich and Polonius would no doubt qualify by such standards. Both have their own specialties, both their hard-won areas of expertise, and Polonius, at least, is if anything overfilled with wise council and good advice. In point of fact, however, the real problem, as Kekes (1983) reminds us, is in learning how to avoid confusing truly wise persons with just such local experts, narrow specialists, and purveyors of esoteric information. The contemporary woods, as everyone knows, are full of technical experts of narrowly specialized skill whom we would never suspect of being wise. Academics and other bookish types, who are forever being reminded of how little else they know, need hardly also be reminded of this distinction. But imagine your surprise when, upon reaching that Himalayan mountain or that damp cave where truly wise persons are purported to live, you are told that the particular expert on your particular problem in living happens to reside on the next mountain or in the next cave. The obvious reason that you would be taken aback is that wisdom, to the best of our memories, has nothing to do with narrow forms of specialized and restricted expertise and everything to do with a broader form of human understanding capable of cutting across unique particulars in order to arrive at some view that has the widest



scope of possible application. Again, as Kekes (1983) reminds us, becoming wise is not a matter of learning new esoteric truths but one of rediscovering the significance of old truths that, at some level, everybody already knows.

The point being driven home here has not escaped the attention of the Berlin group. Dixon and Bates (1986), for example, point with some concern to the fact that the notion of cognitive expertise has its roots in studies of performance in comparatively well-structured formal domains such as chess, physics, and mathematics and wonder aloud by what criteria we should judge expertise in things like music composition or painting. Actually the answer to this question is straightforward: The "expert" painter is a talented copyist whose specialized skills are relatively easily judged. The hard question is by what criteria we should judge the great or creative painter. If philosophers such as Churchland (1984) are correct, the approach required in considering such ill-structured questions relies upon cognitive processes far removed from those needed to solve more straightforward "puzzles" of the sort having to do with "expert" painters and composers.

A similar premonition that their enterprise might somehow have gotten off on the wrong foot is reflected in the concern expressed by Bates et al. (in press) that the finding of their colleague Sowarka (1987), indicating that wise people also have "excellent character," does not fit comfortably into their model. Much the same concern is also in order regarding a large number of highly prototypically rated descriptors of wise people (i.e., tolerant, humble, moral, etc.) identified by Holliday and Chandler (1986) and others, that would also be difficult to account for in any system that defines wisdom only as a state of cognitive expertise.

Much the same point could be made with reference to the Berlin group's handling of the notion that wise persons are a source of "good" judgment regarding the conduct of life. Within the interpretive content of their value-neutral dual processing model the only available meaning of the word *good* is as a synonym for appraising terms such as "sound, effective, practical, and action-guiding" (Dixon & Bates, 1986, p. 225). This is precisely the sort of good (read prudent and practical) life that finally drove Ivan Ilyich to despair (Kekes, 1983) and not at all an answer to our own and Habermas's (1970) question about the good things for which we might hope.

Finally, before going on to soften what is perhaps too pointed a critique of the Berlin group's position, it is worth briefly considering the second phase of their ongoing wisdom project concerned with their attempts to specify behavioral indicators of wisdom by sampling people's judgments about difficult life problems. In their initial empirical efforts these authors (Smith, Dixon, & Bates, 1989) have involved subjects of different ages in a "thinking-aloud" procedure that requires them to work through several hypothetical life-planning problems. The protocols resulting from

these interviews are then analyzed in terms of five criteria (rich factual knowledge, rich procedural knowledge, relativism, contextualism, and uncertainty) chosen to define wisdom-related knowledge. Although, to date, the results generated by this procedure have produced little in the way of significant age cohort differences, at least it has proved to be the case that some of the older subjects in these studies were among the top performers (Bates, 1987).

The problem here is in knowing what to make of such data. Two general sorts of problems present themselves. The first centers upon what Kekes (1983) labels the "Polonius-Syndrome" and concerns again the now over-worked point that "a fool can learn to say all the things a wise man says and to say them on the same occasions" (Kekes, 1983, p. 286). The second centers on the fact that decisions about what is wise and what is foolish can rarely be accomplished in advance. As Freeman (1985) points out, we often find ourselves celebrating after the fact someone's good or wise judgment in having elected to pursue a course that, at the time it was taken, we were absolutely convinced was foolish. That is, the question of whether a particular choice of actions is or is not wise simply may not belong to that category of things that lend themselves to being decided or recognized in advance. As Freeman (1985) has shown, there exist whole constellations of contextualized and time-bound events whose cohesive pattern is not manifestly or nakedly "there" for us to observe or verify at the time but rather whose intelligibility is only detectable in retrospect after everything is said and done. Matters requiring such historical forms of explanation do not adhere, then, to normal criteria of predictability or verifiability but need to conform instead to standards of intelligibility and public acceptability that are not simply equivalent to prediction turned upside down. The existence of such pattern explanations are relevant to the present discussion in two ways. First, the possibility is worth considering that being especially competent in rendering such cohesive patterns through an active process of after-the-fact translation may itself prove to be an important part of what it means to be wise. Others (e.g., Neugarten, 1969) have frequently commented upon the fact that whereas the outlook of youth is commonly forward in time, the orientation of older individuals tends to be fundamentally retrospective in character. If pattern or historic explanation depends upon such a looking back over the flow of past events, then there is in this fact a potentially new way of understanding why wisdom is the all-but-exclusive province of persons of "a certain age." Second, if it should prove to be the case that not only wisdom in general but also individual wise acts take on their proper meaning only retrospectively, then any plan to develop testing procedures of the sort promoted by Smith, Dixon, and Bates (1989), which depend upon deciding in advance which problem solutions are wise and which are not, will ultimately flounder for lack of available scoring criteria.

In brief summary, then, the efforts of Baites and his colleagues to both define wisdom as a feature of crystallized intelligence and develop procedures for its measurement, although clearly straining the envelope of older monopolistic one-note conceptions of possible knowledge forms, still suffer an eventual contortion back into the shape of limited technical expertise. The focus of this group upon matters of practical knowledge and its emphasis upon the pragmatic resolution of life issues does go some important distance toward breaking faith with traditional psychometric conceptions of intelligence, consequently clearing some room for the possible reemergence of a viable conception of wisdom. In the end, however, this insight seems to devolve back into another only slightly modified species of other predominantly technical accounts of possible knowledge according to which wisdom amounts to no more than the simple accumulation of esoteric information or expertise, where the good life is confounded with the prudent life and where standard psychometric ploys permit wise persons to be picked out of the crowd.

The open question, in light of all of the concerns raised in this section, is in what sense the Holliday and Chandler (1986) study imagines itself to escape the same difficulties. Both sets of authors inhabit the same postapocalyptic dark age, belong to the same cargo cult, and are equally handicapped by their inherited inability to either fully recall the disaster that was visited upon their intellectual forebears or effectively recover an older and less confining conception of knowledge or wisdom. Both proceeded in roughly the same fashion, collected highly similar data sets, and analyzed their findings with nearly identical statistical procedures. Given all of these near identities, the likely answer should be and is that in most of their details these two studies are much more similar than different. Where they do tend to part company is with regard to the particular procrustean bed into which they attempted to tuck their findings. In the place of the Berlin group's "dual processing" framework, the Holliday and Chandler findings were seen to better conform to Habermas's (1970) triumvirate of technical, practical, and emancipatory forms of knowledge-constitutive interests. Before undertaking to justify this interpretive choice, however, it is better to begin with what was done and what was found.

### The Holliday-Chandler study

In this research (Holliday & Chandler, 1986), only a part of which will be described here, a series of separate studies involving approximately 500 subjects was carried out in an effort to collect and analyze people's common language descriptions of wise people and to evaluate how such conceptions influence their problem-solving efforts. The primary goal of this series of studies was to test the hypothesis that the terms wise and wisdom, as com-

monly used, reference a constellation of coherently organized and psychologically meaningful attributes and behaviors that include but are not coextensive with what it means to be simultaneously old and intelligent. Employing a Roschian framework of interpretation (Rosch, 1975) and trading upon the methods and procedures of others who had already attempted similar prototype approaches to the study of other psychological descriptors (i.e., Broughton, 1984; Buss & Craik, 1981; Cantor & Mischel, 1979; Neisser, 1979; Sternberg, Conway, Ketrone, & Bernstein, 1981), an attempt was made to determine:

1. whether wisdom can be construed as a prototype-organized concept;
2. whether such a prototype is consistent across age groups;
3. whether the concept of wisdom is held importantly distinct from other partially overlapping constructs; and
4. what particular shape the underlying dimensions of the structure of this prototype take.

In the first study of this series 150 individuals representing three age cohorts (young adults, middle-aged adults, and senior citizens) were asked to generate multiple lists of attributes or characteristics judged by them to be especially descriptive of persons who are wise, intelligent, perceptive, shrewd, and spiritual. Subjects of different ages were included in an effort to provide for a test of the cross-generational consistency of the wise prototype. The lists of these descriptors were then distilled through a series of data reduction steps to eventually yield a nonredundant set of the most frequently nominated characteristics. In general, there were no important age cohort differences in these or any subsequent analyses and, as would be expected if some coherent and prototypically organized conception of wisdom actually is sedimented in the natural language, these subjects were remarkably repetitive in what they had to say about wise persons.

In Study 2, which involved another sample, similarly selected by age, the most consistently chosen of the descriptors to emerge from Study 1 (supplemented by a subset of other terms intended to reflect some dominant themes appearing in the psychological and philosophical wisdom literatures) were presented as stimuli to be rated as to how characteristic they were of wise people. In general, subjects of all ages had definite and closely related opinions about these matters, clearly differentiating between what they took to be good, bad, and indifferent descriptions of wise persons. Interestingly, with the single exception of terms drawn from Eriksonian theory, the descriptors characteristic of various formal psychological and philosophical accounts of wisdom but absent from common language descriptions received generally low prototypicality ratings.

The analyses of these prototype ratings yielded a number of converging lines of evidence that, taken together, lend strong support to the hypothesis that wisdom needs to be thought of as a well-defined, multidimensional,

prototypically organized competency descriptor. More specifically, a series of five factors emerged from the principal components analysis undertaken on these data. Factor 1, labeled Exceptional Understanding as based on ordinary experience, rested upon items such as “has learned from experience,” “sees things in a larger context,” and so on. Factor 2, defined by items such as “is a good source of advice” and “understands life” and referred to as Judgment and Communication Skills, focuses on the ability to understand and judge correctly in matters of daily living. Factors 3, 4, and 5, referred to as General Competence, Interpersonal Skills, and Social Unobtrusiveness, rested upon items such as “intelligent” and “educated” (Factor 3), “sensitive” and “so-cialable” (Factor 4), and “discrete” and “non-judgmental” (Factor 5) and appear in each case to refer to enabling factors people think of as necessary but not especially prototypic aspects of wisdom.

What would appear to be the most important result of these analyses is the general demonstration that people construe this prototype descriptor list in a multidimensional manner and that the specific dimensions of this factor structure are straightforwardly interpretable in terms of recognizable types of psychological abilities. That is, across three generations, respondents to this procedure revealed a complex, multifaceted, but consistent prototypically organized conception of what it means to be wise.

Finally, several analyses were conducted to examine the similarity between wisdom and other conceptually related competency indicators including intelligent, perceptive, spiritual, and shrewd. Here the data made it apparent that these subjects maintained a sufficiently well-differentiated notion of wisdom to allow them to keep clear about the differences assumed to divide wise persons from those who are more simply only intelligent or perceptive or shrewd or spiritual.

These are the data, and now the matter that needs to be settled is how such findings might open some new crack of light into our dark and monolithic view of knowledge and our consequently stunted conception of wisdom. This task is taken up in the next and final section.

### **Moving toward a multidimensional account of wisdom**

In contrast to the more straightforwardly univariate account of wisdom offered by the Berlin group that discounts the “mechanics” of intelligence as a young person’s game and lays primary responsibility for what it might mean to be wise upon the “pragmatics” of intelligence, the responses of the subjects of Holliday and Chandler’s studies were not so easily contained within the horizon of possible meanings afforded by conventional unitary conceptions of empirical-analytic knowledge. Instead, if we are to take seriously the reports of these subjects, their accounts promote a much more elaborated picture. The General Competency factor that emerged, and that shows clear overlap

with the common language conception of intelligence, makes it apparent that, for these subjects, a certain continuing facility with a purely *technical* kind of ability, closely akin to the Berlin group’s notion of intellectual “mechanics,” continues to be a working aspect of their prototype of wise persons. The Judgment and Communication Skills factor would appear to be a close approximation of what Baltes and his colleagues have in mind by their notion of “expertise in the fundamental pragmatics of life” and makes clear contact with more classic conceptions of what Habermas (1970) describes as a second form of pragmatic or practical knowledge. Finally, the Exceptional Understanding factor, which focuses attention upon those interpretive and meta-analytic abilities that allow wise persons to identify essences and to establish life goals and values rather than merely identify simple prudential choices and mundane means–ends relations, points to a third dimension that is especially foreign to modern views that equate all true knowledge with the products of empirical science.

On balance, then, it would appear that the claims about wise persons promoted by our subjects fit awkwardly or not at all within the conventional one-note interpretive framework left over to us after the eclipse of all more classic accounts of possible knowledge forms. Whether this is to be seen as a good or bad thing is likely to prove a function of whether one is largely content with or alarmed by the prospect of living in a world that sees all the solutions to its problems as lying along a course of increased technical expertise. For our own part, Holliday and I fall in the camp of those who are deeply alarmed and look with some hopefulness on the prospect that there may be wise persons who see things within some more expanded framework. Whereas deciding exactly what such a framework might look like is, by definition, a task that necessarily must be left to those who are wise rather than to those who simply study wisdom, some general instruction was taken and a real intellectual debt is owed by us to the work of Marcel (1951) and Habermas (1970), who perhaps more than any others have struggled to recover a broader sense of what it might mean to know.

In particular, Habermas has argued that the modern tendency to see knowledge in terms of technical expertise has obscured the possibility that there actually may be several related forms of what he characterizes as technical, practical, and emancipatory knowledge–constitutive interests. The underlying interest in technical knowledge, he argues, is the need to control the natural environment, and our modern tendency to equate all knowledge with it has blinded us to the need to serve our interests through practical and emancipated modes of knowledge. Of the remaining but often discounted possibilities, he characterizes practical knowledge as involved with our interests in maintaining social and communicative practices. His account of emancipatory knowledge is more elusive but crystallizes around the themes of promoting rather than restricting human possibilities and of finding answers to the question of what

we might hope. The point to be made in reciting these aspects of Habermas's theory is that his notions of technical, practical, and emancipatory knowledge-constitutive interest bears a remarkable similarity to the dimensions that appear to make up our common language conception of wisdom. If this is so, wise persons may prove to be those who successfully peer through the gloom of our present dark age and recover some preapocalyptic vision of types of knowledge we have long since forgotten. Such prospects should lend new motivation to those of us interested to learn more about what it might mean to be wise.

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