Reviews

Religion, Interpretation, and Diversity of Belief: The Framework Model from Kant to Durkheim to Davidson. By TERRY F. GODLOVE, JR. Cambridge: Cambridge Univ. Press, 1989. 207 pages. $54.95.

Sooner or later every student of the world's religions has to come to terms with their diversity, the incompatibilities between them, and the problems involved in appraising practices or beliefs that lie outside the traditions with which she or he is most familiar. The main aim of this penetrating essay in philosophical theology is to evaluate a piece of scholarly apparatus that commonly is taken for granted in the religious studies literature but which, in the author's view, requires closer scrutiny. This apparatus is described as the "framework model" of religious belief. By this Terry Godlove means a model that treats different religious traditions as alternative conceptual structures that provide different ways of looking at and organizing the world. One obvious attraction of this now-conventional approach is that one may speak of an objectivity achieved through the mediation of such a structure within each religion while also accounting for incommensurabilities between them. What kind of sense, to use one of Godlove's favorite examples, can the Western Christian make of the Brazilian bororo who, in some ritual settings, will claim to be a parrot?

Attractive though the conceptual framework model may be, it has at least three drawbacks which, for the author, are serious enough to rule it out. In his view it rests on a misreading of Immanuel Kant, notably by Émile Durkheim, who erred in transplanting Kantian conceptions from a first-person to a third-person context, locating the source of the categories in primitive religion and ultimately in the social order. Godlove contends that a correct reading of Kant precludes the very relativism that is often seen as an implication of his analysis. It is in fact the kind of relativism spawned by the framework model that constitutes its second defect. Godlove suggests that there must be a better way to model the diversity of religious belief. It is all very well to follow Durkheim in treating religious concepts as if their principal function is to organize the neutral data of sensation, but there is then the third problem that a neat distinction between neutral incoming content and organizing scheme is simply unsustainable.

In setting up his critique, Godlove identifies two pillars that routinely support the framework model: the unhappy distinction between uninterpreted content and organizing scheme, and the idea that we grapple with "physical nature" only as it comes filtered through that scheme. Reviewing the work of such luminaries as Robin Horton, E. Evans-Pritchard, and John Hick, he shows how a high epistemic status is conferred on the concepts within the framework by those who adopt the model. The consequence is that emphasis is wrongly placed on the organization of experience instead of on its interpretation. By contrast, Godlove prefers to speak in terms of

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alternative interpretations, creating greater scope for dialogue and mutual comprehension between members of different traditions. It is the high level of theoreticity within religious formulations that, not surprisingly, engenders diversity of interpretation. To superimpose the framework metaphor (with its implication of discrete, holistic systems) goes beyond what is required.

To have become so entrenched, the framework model must have done some useful work. Echoing Clifford Geertz, Godlove almost concedes that many religious traditions "are discrete in the sense that an indeterminately long list of beliefs belonging to one . . . can be all but incompatible with a parallel list belonging to another" (p. 84). Moreover, when one encounters those who believe themselves to be parrots "it may appear the only humane course to appeal to the idea of an 'alien conceptual framework' " (p. 84). In accounting for the prevalence of the conceptual framework model, one is also tempted to add that it has done useful work for historians and philosophers of science. It was after all one of Thomas Kuhn's insights that Joseph Priestley and Antoine Lavoisier could look at the same object but see something different, in one case "dephlogisticated air," in the other "oxygen." Whether or not one formalizes this insight through the notion of paradigm, the fact remains that much historical reconstruction uses the framework model informally. Godlove himself notes the point made by Basil Mitchell that the phenomenon of religious conversion can bear more than a superficial resemblance to a Kuhnian paradigm shift. Against all such points that might be made in its defense, the framework model nevertheless collapses for one overriding reason. In the author's view it is simply undermined by the holistic linguistics of Donald Davidson, deference to which is at the spiritual and analytical heart of the book.

The point underlined by Davidson is that disagreement between protagonists of different traditions can be achieved only if there is an enormous pool of background concepts that they actually hold in common. Preponderant agreement, in the author's paraphrase, "is a necessary condition of understanding" (p. 94). It is this background of what Davidson himself calls "largely unmentioned and unquestioned true beliefs" (p. 95) that makes possible the identification of a significant disagreement. The larger the pool of common beliefs about everyday objects, the less helpful it is to conjure up an image of separate epistemic structures detached from any common ground. Our strategy ought rather be to preserve the encompassing nature of religious belief by making it interpretively parasitic on a world of shared objects and events. One consequence of adopting this Davidsonian logic is that the role accorded to religious beliefs relative to other kinds of belief appears to diminish. Not all readers will relish this conclusion.

Godlove is aware that his own position will attract criticism. The proposition that "if we want to get interpretation going—if we want to see the animal we confront as having beliefs at all—we must *decide* to find him or her largely right and reasonable about those objects and events that we appear to confront together" could evoke the response that "this initial act of interpretive charity guarantees agreement only over a very limited range of basic beliefs, hardly broad enough to preclude our finding the speaker 'largely wrong about the world' " (p. 104). In short we seem locked into a debate about the weighting of the shared beliefs against the unshared, with

the weight surely variable from one believer to another. Two other problems seem worthy of mention. Although the framework model is rejected as an account of what goes on within a religious tradition, both Davidson and Godlove need a "network" model to articulate their own kind of holism: "We identify thoughts, distinguish between them, describe them for what they are, only as they can be located within a dense network of related beliefs" (p. 105). Secondly, is it so obviously true that "no two religions can hold thoroughly incompatible sets of religious precepts, for, if they did, we would not count them both as religious" (p. 119)? There certainly have been those who have suggested that the negation of every item in a creed leads to a mirror-image religion rather than a negation of the epithet "religious." There is a genuine issue here, as those who have read Carl Becker's *The Heavenly City of the Eighteenth-Century Philosophers*, will recognize.

From the abstract tone of this review, it will be clear that the author's thesis (as he freely admits) is itself highly abstract. The question he finally puts to himself is "whether I have been justified in presuming compatibility between a transcendental approach to empirical knowledge and a holistic approach to linguistic interpretation" (p. 154). This means that his argument is not for the fainthearted. The early chapters may indeed have a limited appeal, concerned as they are principally with the retrieval of a nonrelativistic Kant. But reading them is certainly worth the effort. As one begins to discern more clearly the target of his attack (from chapter 3 onward), one is drawn into a challenging critique that holds out the promise of practical benefits. If the argument is sound, it removes the temptation to think in terms of massive global collisions between total belief systems. Other insights are accentuated along the way. One reader at least was struck by the wisdom of Geertz's observation that religious persons can typically view the world through two perspectives, the "religious" or the "commonsensical," and that it is a mistake to underestimate the rapidity and frequency with which they can switch between them. There is a lesson here when we seek to identify the "religious beliefs" of eminent scientists, whether living or dead. Charles Darwin showed great honesty when he admitted that, of all beliefs, it was his religious ones that fluctuated in just such a way.

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Ethics in an Age of Technology. By IAN BARBOUR. San Francisco: Harper, 1993. 312 pages. $19.00 (paper).

Ian Barbour's Gifford Lectures, published in two volumes under the titles *Religion in an Age of Science* (vol. 1) and *Ethics in an Age of Technology* (vol. 2), represent a tour de force of scholarship and sensibility. The subject of this review is the second volume, in which Barbour undertakes a systematic treatment of theoretical issues (part 1), coupled with case studies of critical technological domains (part 2) and an assessment of future problems and

prospects (part 3). The result is vintage Barbour: lucid, reasoned, encyclopedic, fair, perceptive, and lean. As usual, Barbour manages to identify all the pertinent issues and to summarize all the relevant literature while simultaneously advancing his own substantive argument: an impressive display of imaginative composition and disciplined execution.

The central argument of the book is this: Technology is a morally ambiguous social construction. As such, it must be judged by and directed toward values that are conducive to individual, social, and environmental welfare. Barbour rejects the optimistic view that technology is uniformly beneficial to human life. Likewise, he rejects the pessimistic view that technology is inimical to human fulfillment. Neither inherently liberating nor inherently threatening, technologies are instruments of power which must be judged by their consequences relative to nine enduring values: three individual values (food and health, meaningful work, and personal fulfillment), three social values (social justice, participatory freedom, and economic development), and three environmental values (resource sustainability, environmental protection, and respect for all forms of life).

Why these nine? Barbour justifies his list with appeals to science, philosophy, and religion. These values, he says, cannot be derived from science but they are informed by science. They also are values to which philosophical analysis contributes conceptual clarity, coherence, and universality. And finally, these values are commensurate with a wide range of religious experience and practice. Some readers will be left wondering about the coherence of the list as a whole. Why shouldn't one, for example, consider "personal fulfillment" to be inclusive of both "food and health" and "meaningful work"? And why shouldn't one conflate the three social values under the superordinate value of "social stability"?

Such concerns for coherence dissolve quickly as Barbour leads the reader into case studies of critical domains of technology. Rather than attempt a superficial assessment of a wide range of technologies, Barbour identifies three domains (agriculture, energy, and computers) for closer analysis. This selective approach turns out to be entirely sufficient, for in the process we are given a model of assessment that easily can be transferred to other technologies. The assessment in each case proceeds under three questions: What is the present use of this technology? What impact is it having on the nine values? and How can the technology be redirected to serve these values rather than frustrate them?

Barbour's application of the model yields several specific recommendations for bringing agriculture, the energy industry, and the information industry into line with his nine values. The result is admirable, especially as one considers the complicated tensions between the various values. Barbour's assessments are well informed, his critiques are judicious, and his recommendations are realistic. Readers may not find much novelty in the results, but neither will they find much to argue with.

In part 3 Barbour considers the implications of the awesome power inherent in modern technologies. The cumulative impact of modern technologies is threatening vital ecosystems on scales of space and time unprecedented in human history. This impact endangers the integrity of the entire planet for the foreseeable future. Recent developments in genetic engineering have placed in our hands unprecedented powers to shape the future of gene pools; while this technology holds great promise it also

introduces profound risks. The arms race has resulted in the unprecedented destructive power of military weaponry. In the context of discussing nuclear weapons technology Barbour delivers the most compelling line (for me) of the entire volume: "No possible national interest could justify gambling with the future of the whole human race, along with that of other life forms that might be harmed or destroyed" (p. 205).

The unprecedented power inherent in modern technologies greatly magnifies the urgency of controlling them responsibly. There is far too much at stake, and there are far too many stakeholders, to trust the control of technology to the dynamics of market forces and expert opinion. Barbour makes a strong case for revitalizing all the conventional instruments of participatory democracy. Educational institutions, public interest groups, political parties, the media—these and other organs of public discourse have a role to play in broadening the base of informed opinion. An active, informed electorate will create the conditions for responsible public policy. Increased public awareness and participation are essential for expanding the base of technology assessment beyond the standard (but limited) techniques of cost-benefit analysis and risk assessment. Barbour places a special burden of social responsibility on the shoulders of scientists and engineers. These individuals have a unique obligation to act professionally in the public interest. And finally, each citizen bears a responsibility to become active and informed, and to reflect on the human and environmental impact of their own life-styles.

In the final chapter we get a discussion of prospects for the future. Here Barbour makes a case for a neo-appropriate-technology movement which might result in a diversity of scale and organization. Under these conditions of production an industrial society might develop the flexibility characteristic of dynamic ecosystems. In addition to appropriate technologies of production, a sustainable future calls for appropriate patterns of consumption, in short, conservation and simplification of life-styles.

The bottom line, of course, is that a redirection of patterns of production and consumption calls for a transformation of values. Barbour cites evidence that change is on the way in the form of an emergent postindustrial social paradigm, fueled in part by environmentalism. But the base of this new social paradigm must be broadened and strengthened. Further motivation for expanding the postindustrial paradigm can be supplied by Western religious traditions, if they are willing to take seriously their role as agents of social change. Barbour finds significant resources for constructive change inherent in the biblical perspective, especially when it is reformulated under the themes of process thought.

Redirecting technology is a daunting task, even without the presence of substantial obstacles to change. Yet Barbour remains hopeful. Despite the obstacles, he sees the possibility of a broadened and motivated postindustrial paradigm being driven into reality by four promising engines of social change: "I believe that the combination of education, political action, catalytic crises, and vision can bring about a more just and sustainable world" (p. 267).

I am so impressed with Barbour's overall achievement in this book that I am tempted to discard all spoilers. Yet there is one deficiency so glaring that it cannot be overlooked. Barbour does not do justice to the role of population pressures both as a major determining factor in the development

of modern technologies and as a major obstacle to a sustainable future. In a book as comprehensive as this one we should expect to see a chapter devoted to what many observers judge to be the driving force in several domains of technology, as well as the major counterforce to redirecting their development.

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Cosmopolis: The Hidden Agenda of Modernity. By STEPHEN E. TOULMIN. Chicago: Univ. of Chicago Press, 1990. xii, 228 pages. $13.95 (paper).

The current debate over the decline of modernism and the rise of postmodernism generally assumes that we know what modernism is and when it began. Stephen Toulmin's delightful study calls both of these assumptions into question. The "standard account" traces the beginning of the modern era to the early seventeenth century, and specifically to the intellectual revolution launched by Galileo and Descartes in the 1630s. By then most of Europe had reached an unprecedented level of material prosperity, and the new secular culture, with its emphasis on the power of rationality, had rejected the authority of tradition and the Church. The end of Christendom and the growing power of the laity laid the groundwork for the rise of the sovereign nation-state. Modern science and philosophy were nurtured in this atmosphere of openness and prosperity. Even today, many historians view the early seventeenth century as the transition point from medieval to modern times.

In fact, this account is largely incorrect. Historical research now indicates that Europe in the sixteenth century enjoyed a long period of economic expansion; in the seventeenth century that prosperity came to a grinding halt. It was followed by years of economic depression and uncertainty, coupled with a rise in religious intolerance and persecution. In spite of his radical ideas, Copernicus never suffered the ecclesiastical censure that Galileo confronted a century later. The Thirty Years' War, from 1618 to 1648, was one of the most brutal and bloody conflicts in European history. Rather than viewing modern science and philosophy as products of tolerance and prosperity, Toulmin suggests, it would be better to treat them as responses to a general state of crisis in the first half of the seventeenth century.

Toulmin argues in chapter 1 that the seeds of modernity actually were planted a century earlier, at the height of the Renaissance. Many of the leading figures of the Renaissance, from Leonardo to Montaigne to Shakespeare, were neither fully medieval nor fully modern but something of both. The modern world and modern culture actually appeared in two distinct phases, the first (literary or humanistic) beginning a century prior to the second (scientific and philosophical). In fact, if we push back the origins of modernity from the seventeenth to the sixteenth century, we find the *second*, scientific and philosophical phase, from 1630 on, leading many

Europeans to turn their backs on the literary and humanistic themes of the *first*.

The early seventeenth century was, in many ways, a kind of "counter-Renaissance." Toulmin notes that seventeenth-century philosophers set aside the often earthy humanism of the Renaissance, turning their backs on four different kinds of practical knowledge—the oral, the particular, the local, and the timely—and replacing them with a focus on abstract, general, timeless, and universal theory. The key question is, Why should the focus of intellectual preoccupation in Europe change so drastically at just that time? Here, Toulmin argues, historians of science and philosophy need to take seriously recent work on the economic and social history of the seventeenth century. In significant ways, the changed intellectual focus in early-seventeenth-century Europe reflected the wider social and economic crisis of the period.

Poets often are the literary barometers of the times. The assassination of Henry of Navarre, the collapse of the medieval synthesis, and the rise of the new science all converge in a general state of anarchy expressed in John Donne's *An Anatomy of the World*: " 'Tis all in peeces, all cohaerance gone." From Donne's perspective the new science, the loss of political loyalty and family responsibility, and even the rise of rampant individualism are interconnected as *aspects of a whole*. Ancient dreams of a harmony of the natural and social orders, *cosmos* and *polis*, in a single "cosmopolis" have been undermined by social and political upheaval. The breakdown of the social order has a *cosmic* dimension. For the world to be "cohaerent" integrity is needed in the natural and human realms alike.

Much of chapter 2 is devoted to exploring the impact of this general state of crisis on the young René Descartes. The philosophical shift from practical issues to an exclusive concern with those that were general, universal, timeless, and written was no quirk. All the protagonists of contemporary philosophy insisted on the need for epistemological foundations that were clear, distinct, and certain. But the seventeenth-century "quest for certainty" was more than an abstract and timeless intellectual pursuit; it was a timely response to a specific historical challenge—the political, social, and theological chaos embodied in the Thirty Years' War. The rationalist program appealed to a new generation of thinkers who rejected the modest, skeptical approach of the Renaissance humanists. Their intent was to construct a fresh cosmology from the ground up. Natural philosophy itself had to be rebuilt, if the epistemological foundations of a new cosmopolis were to be secured.

Following the end the Thirty Years' War, Europe faced the enormous task of political and intellectual reconstruction. Three decades of war had proved nothing about the relative merits of Protestantism or Catholicism, but had broken the universal dominance of ecclesiastical authority. The rise of sovereign nation-states and an educated laity tilted the balance of power toward the secular. A new and stable social order gradually emerged, founded on a new cosmopolis in which the divinely created order of nature and the humanly created order of society were once again seen to be in harmony. If the key figures of the early seventeenth century were Donne and Descartes, the latter half of the century found its symbolic focus in Leibniz and Newton.

Chapter 3 explores the rise of the modern worldview, centered on the

dream of uniting a rational method, a unified science, and an exact language into a single project. The new science was meant to be both mathematical and experimental, and the victory of rationalism was seen as confirming the Pythagorean insight that mathematical theories will have practical applications in human experience. The key element in this framework of modernity was the Cartesian dichotomy. While natural phenomena were explained in mechanical terms, human affairs were increasingly relegated to their own separate and distinct domain. Human actions and experiences were *mental*, the result of *reason*; physical phenomena, on the other hand, were *material*, the result of mechanical, repetitive, and predictable *causal effects*. Human beings are part rational and part causal; rationality and causality follow different rules.

The new science provided a perfect counterpoint to the new social and political structure of Europe. The world of nature was described in terms of stability and hierarchy. Everything in the natural order testified to God's dominion over nature. That dominion extended throughout the structure of the world, including both the natural and the political realms. What God was to nature the king was to the state, a husband to his wife, and a father to his family. The modern nation-state was modeled after the solar system: Louis XIV, the "Sun King," exercised authority over concentric circles of subjects, all of whom knew their proper places and orbits. The order of nature and the order of society were part of a single cosmopolis binding all things together, from the solar system to the family, in a hierarchy in which the "lower" orders were subject to the "higher," and ultimately to God.

For the next two hundred years or more, few questioned either the Cartesian separation of human reason from a mechanical nature or the stable, hierarchical cosmopolis built on the Newtonian foundation. Even philosophers of the Enlightenment, such as Voltaire and Rousseau, did not reject the modern cosmopolis, but used it to fight *from within* the totalitarian tendencies of the nation-state. The dismantling of the scaffolding of modernity, which Toulmin traces in chapter 4, challenged accepted ideas and drew hostility and scorn at every step. The first plank to be questioned was the denial that nature has a history. New work in historical geology in the eighteenth century extended the natural time scale from thousands to millions of years, setting the groundwork for the Darwinian revolution a century later.

The most intractable timber in the modern framework was the dichotomy between rationality and causality, which for a long time made the status of "feelings" and "emotions" problematic. The Cartesian mind was the rational mind. As Freud discovered, the emotions were a screen word used to cover allusions to sexuality. Both humanists and scientists faced strong opposition in their efforts to record and explain the emotions. On the humanist side, the story of this struggle is the history of the modern novel. In science, the development of physiology and psychology broadened the scope of scientific inquiry, but continued to describe human experience as if it were in principle no different from geology or astronomy.

Nevertheless, by 1914 the stage was set for the dismantling of the last timbers of the intellectual scaffolding that had, for more than 250 years, established the parameters of acceptable thought. European culture and society were on the verge of a return to the political moderation and human tolerance characterized by the lives of Henry IV and Montaigne. But

instead of a return to the values of the Renaissance, Europe found itself once again ripped apart economically and politically. The years from 1920 to 1970 were a time of transition, during which the modern cosmopolis was increasingly discredited, without the emergence of a clear alternative. The intellectual and cultural situation in the West was as radically transformed between the 1920s and the 1970s as it was from the 1590s to the 1640s, *but in reverse*. By 1650, the humanist toleration of uncertainty, ambiguity, and diversity of opinion gave way to a growing intolerance, a rationalist insistence on theory, and an emphasis on certainty. The resulting cosmopolis kept its respectability well into the twentieth century. The countercultural revolution of the 1960s marked a renewed interest in the long-deferred humanistic concerns of the Renaissance.

In his last chapter, Toulmin asks whether it is possible to recover the humane wisdom of the Renaissance without sacrificing the advantages won during the three centuries in which intellectual life was dominated by Cartesian philosophy and the exact sciences. The received view of modernity rested not only on the quest for certainty, but on the rationalist myth that the only way to deal with problems is to throw out the past, and begin anew with a "clean slate." But the belief that we can make a fresh start by cutting ourselves off from our cultural past is an illusion. All we can do is begin from when and where we are, refining and improving inherited ideas to determine the limits of their scope. The need today is to discover anew the reasonable and tolerant legacy of humanism, reconnecting it with the rational and scientific half of modernity. The task, in other words, is to reclaim our inherited modernity by *humanizing* it. This means a return to the oral, the particular, the local, and the timely. As we enter a new phase in the history of modernity—seeking to humanize science and technology and reappropriate the aims of practical philosophy—uncertainty about the very survival of our world obliges us to shift our attention from the *rational* to the *reasonable*, reappropriating those values from Renaissance humanism lost in the heyday of modernity.

Nearly thirty years ago, Thomas S. Kuhn suggested that science does not develop in a gradual, linear fashion but by sudden "paradigm shifts," which mark the beginning of a new understanding of reality incommensurate with the old. Kuhn attributed changes of paradigm to increasing numbers of "anomalies" that could not be explained under the old science. Toulmin carries Kuhn's insight a step further, arguing that changes in philosophical and scientific paradigms are deeply rooted in socioeconomic events which shape the methods and goals of the intellectual community of the time. *Cosmopolis* offers a sweeping perspective of the events that influenced the origin and development of modernity. Relating events as disparate as the Council of Trent and the Cartesian *cogito*, Toulmin recounts the rise and decline of the modern paradigm, suggesting that the "third phase" of modernity (or of the transition from modernity to postmodernity) will require a model of society better equipped to serve human needs than traditional models still dominated by the Newtonian image of massive force and centralized power.

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The Social Dimensions of Science. Edited by ERNAN MC MULLIN. Notre Dame, Ind.: Univ. of Notre Dame Press, 1992. 299 pages. $19.95 (paper).

In *The Structure of Scientific Revolutions* (Chicago: Univ. of Chicago Press, 2d ed., 1970) Thomas Kuhn criticized both objectivists, who hold that there must be some permanent ahistorical framework to which we can ultimately appeal to determine the nature of scientific knowledge, and relativists, who see scientific knowledge as nonrational and arbitrary. Kuhn called for a new understanding of rationality in science that recognizes the importance of social factors in shaping the values of scientific communities. This collection of essays selected by Ernan Mc Mullin, director of the program in history and philosophy of science at the University of Notre Dame, contributes to such an understanding, for the essays present different ways of understanding how sociological, aesthetic, and ethical practices affect or even constitute scientific knowledge.

Some contributors recognize the necessity of social factors in explaining scientific practice while retaining a view that truth is in some sense independent of social constructions. For example, in "Peirce on the Social and Historical Dimensions of Science" C. F. Delaney shows that while Peirce affirmed that scientific inquiry is informed by interests, structured by norms, and driven by certain ineliminable moral factors and social ideals, he also insisted on claiming that the aim of science is objectivity and truth, where truth is defined as "correspondence of an abstract statement with the ideal limit towards which endless investigation would tend to bring scientific belief" (p. 44). On the other hand, in "One More Turn after the Social Turn" Brian Latour insists that the division between the natural and the social is the source of the problems we have in correctly explaining scientific knowledge. He argues that entities like Pasteur's microbes are neither creations of nature nor products of society, but rather "new social links that redefine at once what nature is made of and what society is made of" (p. 283). Ian Hacking expresses a more complex view of society's and nature's roles in constructing scientific knowledge in "Statistical Language, Statistical Truth and Statistical Reason: the Self-authentication of a Style of Scientific Reasoning." Hacking argues that there is not one theory of truth that applies to all contingent empirical sentences investigated in the sciences. In the case of subject-relation-object sentences, like "My shoes are black," that link commonplace observational nouns and predicates, Hacking thinks a correspondence theory of truth is adequate, since we can identify the fact to which such a sentence refers by independently identifying the shoes and the blackness. By contrast, many sentences can be understood and verified only by a process or style of reasoning. For example, sentences about standard deviations or populations are true only if there is a statistical style of reasoning that makes sense of such terms. Mc Mullin gives readers a good sense of the variety of ways contemporary philosophers understand the social aspects of scientific knowledge.

In addition to the theoretical discussions of the social nature of scientific knowledge Mc Mullin offers case studies of specific historical changes in scientific knowledge. For example, in "Practical Reason and the Construction of Knowledge: The Lifeworld of Haber-Bosch" Timothy Lenoir

examines how the lifeworld of scientists like Haber and Bosch, who were seeking processes for synthesizing ammonia from its elements, played a role in developing theoretical insights for work in thermodynamics.

While Mc Mullin does an excellent job of assembling a wide spectrum of positions taken by contemporary philosophers, he does less well at giving readers an opportunity to assess the relative merits of the perspectives, since most of the essays describe ways of looking at science rather than argue for the superiority of one particular viewpoint. A salient exception is the essay by Thomas Nickles, "Good Science as Bad History: From Order of Knowing to Order of Being." Nickles considers Peter Medawar's argument that scientific papers are frauds because they offer an objectifying language and logical form very different from what actually gives rise to scientific results. Medawar, an advocate of the strong historicist program, sees scientific papers as deliberate misrepresentations of "real" scientific work, for he holds that any form of inference or any use of history is nothing more than rhetorical overlay or "whiggism," the historical mistake of interpreting the past in terms of what comes later. While whiggism is bad history, Nickles argues that it often makes for very good science. For example, Albert Einstein and Paul Ehrenfest between 1905 and 1909 attributed to Max Planck a solution, which Planck never offered and later explicitly repudiated (the early quantum theory with free energy quanta), to a problem that Planck never entertained, the ultraviolet catastrophe. According to Nickles, Medawar's criticism of scientific papers betrays what he calls a "single pass model" of scientific activity, the view that scientists should only describe previous research activity without arguing that certain explanations are better than others. This model denies the distinction between discovery and justification.

Nickles argues that such a denial entails explaining significant changes in the activities of research communities only in terms of social attribution of success and the formation of power structures. If the latter is true, then the very activity of the strong historicists can be explained only in terms of social attribution of success and power structures. If that is true, then there is little, if any, reason to agree with the strong historicists' conception of science. They reduce history to describing happenings, risking no theoretical interpretations or explanatory inferences.

It seems to me that Helen Longino's "Essential Tensions—Phase Two: Feminist, Philosophical, and Social Studies of Science" exhibits the difficulties Nickles points to. While she holds that "demonstrable evidential relevance" is a standard of rationality and acceptability independent of and external to any particular research program, she insists that the specification of the standard is established by intersubjective agreement. However, given different communities operating with different notions of what is rational or relevant, it is hard to see how this standard will work to ensure the kind of inclusivity she believes such a standard requires. For example, Longino says that a necessary criterion for effective criticism is that intellectual authority be shared equally among qualified practitioners. But she seems to forget that, consistent with her own contextual empiricism, the notion of who is qualified will be relative to different communities. Thus, she may still have to accept that some communities will not have women or minorities as practitioners, for none will be considered qualified based on some communities' criteria.

While many of the authors seem to assume that foundationalism has failed, there is no discussion of what foundationalism is and little is said of its failings. For example, Nickles writes, "We have shown all foundational accounts of knowledge to rest upon one or another mysterious, question-begging, self-certifying claim or capacity" (p. 117). In order to clarify and respond briefly to Nickles's claim, let me refer to Alvin Plantinga's account of weak foundationalism in "The Reformed Objection to Natural Theology" (*Christian Scholar's Review* 11 [1982]: 191–92):

1. Every rational noetic structure has a foundation.
2. In a rational noetic structure, nonbasic belief is proportional in strength to support from the foundations.

Nickles seems to be attacking (1), but he fails to argue that it is impossible or question-begging to accept a self-certifying claim or capacity. Why should it not be the case that in thinking or perceiving we have certain states of mind that present themselves to us and are known in the very presentation? As Roderick Chisholm observes in *The Problem of the Criterion* (Milwaukee: Marquette Univ. Press, 1973), wishing one were on the moon is a state which is such that one cannot be in that state without it being evident to one that one is in that state. Thinking that one perceives and thinking that one remembers are other states of mind that present themselves and that therefore provide their own foundations. It is not clear that (1) is obviously false.

If Nickles's objection to foundationalism is based rather on a wish to deny (2), then he may have a point. Support for the falsity of (2) comes from a surprising source, Thomas Aquinas's *Disputed Questions on Truth,* question 14, article 2 (Chicago: Henry Regnery, 1953).[1] On his view it is rational to believe a proposition even when the evidence is not proportionate to it, given that there are practical reasons obliging one to believe. For instance, friendship obliges us to believe the claims of our friend. With respect to claims of faith the word of the human messenger and the likelihood of the message based on one's love for its goodness can offer adequate reason for belief. Nickles may think that in a somewhat similar way the scientist offers less than adequate reasons for his or her belief in a certain theory or hypothesis.

However, it is not clear that the evidential status of particular hypotheses or theories is like that of religious beliefs. In scientific questions we can offer evidence independent of the hypothesis being tested as grounds for believing it. The more independent confirmation there is of a hypothesis, the more likely it is that the hypothesis is true. For example, Jean Perrin designed experiments to measure the number of molecules in one mole of material in a variety of different ways: chemical, electrical, and through observations of microscopic motion.[2] The fact that several independent theoretical streams confirm the number of molecules in a mole of material counts as adequate evidence even though a single such stream might not be adequate. Furthermore, it is not clear that we have an obligation to believe scientific theories in the way we have an obligation to believe our friend or the credal statements of our faith. But if I am wrong and certain scientific hypotheses are believed without adequate evidence, the social dimension of science might expose

a surprising similarity between the kind of assent we give to scientific hypotheses and our acceptance of religious claims.

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NOTES

1. For an extended discussion of Aquinas's view, see Thomas Sullivan's "Adequate Evidence for Religious Assent," in *Thomistic Papers IV*, ed. Leonard Kennedy (Houston, Tex.: Center for Thomistic Studies, 1987).

2. Peter Kosso makes this point in *Reading the Book of Nature: An Introduction to the Philosophy of Science* (Cambridge: Cambridge Univ. Press, 1992).

Evolutionary Epistemology and Its Implications for Humankind. By FRANZ M. WUKETITS. Albany: State Univ. of New York Press, 1990. 262 pages. $64.50; $21.95 (paper).

Evolutionary Ethics. Edited by MATTHEW H. NITECKI and DORIS V. NITECKI. Albany: State Univ. of New York Press, 1993. 368 pages. $49.50; $16.95 (paper).

If what we know (epistemology) and what we ought to do (ethics) can both be given an evolutionary explanation (based on biology), then human life will have been rather thoroughly naturalized. Here are two books that ask whether and to what extent that can be done; both inquiries are revealing, but not always in the ways their authors and editors intend. Wuketits advocates an evolutionary epistemology, but also finds that human knowledge vastly transcends any produced by natural selection or found elsewhere in biology. In the Niteckis' collection, evolutionary ethics, advocated by some, is met mostly with philosophical skepticism.

The Wuketits volume is an introduction to the field by a professor of philosophy of science at the University of Vienna who also teaches philosophy of biology at the University of Graz, Austria. An enthusiastic evolutionary epistemologist, he guides us through evolutionary natural history as a cognition process, the evolution of human knowledge, the evolution of culture, the evolution of science, and the challenge of all this to philosophy.

What Wuketits is best at doing is having his cake and eating it too. He makes repeated claims that evolutionary epistemology thoroughly naturalizes humans: "Humans, like other organisms, result from organic evolution" (p. 25; p. 47); "Even their mental capacities result from organic evolution" (p. 1); "If we take evolutionary epistemology seriously, then the special status of our species with respect to knowledge is gone" (p. 4). And yet he makes repeated claims about what he likes to call the "transgression" of biology. "The evolution of scientific knowledge may be described as an information process based on, but at the same time transgressing the

boundaries of, biological information processing" (p. 8, with more transgressing on pp. 17, 20, 92, 105, and elsewhere); "I use the term *transgress* in the sense of 'go beyond' " (p. 105; also p. 2).

Wuketits nevertheless advocates "an evolutionary interpretation of the growth of scientific knowledge" (p. 52), because "the growth of our knowledge is the result of a process closely resembling what Darwin called 'natural selection': that is, *the natural selection of hypotheses:* our knowledge consists, at every moment, of those hypotheses which have shown their (comparative) fitness by surviving so far in their struggle for existence; a competitive struggle which eliminates those hypotheses which are unfit" (pp. 45–46, following Karl Popper).

It is clear here that Wuketits does not really mean *natural* selection in the biological sense (those organisms survive that leave the most genetic offspring), but *rational* selection of the best or truest hypothesis. A scientific theory, tracing causes, "is a *rational* accomplishment transgressing old evolutionary programs" (p. 93). "I do *not* contend that human rational knowledge is *nothing else* but biological information processing" (p. 106). Wuketits carefully distinguishes between what he calls ratiomorphic processes, which work without consciousness, as do instinct and genetic programs, and rational processes, which require conscious deliberation and evaluation. "Human beings are able to transgress their own ratiomorphic apparatus" (p. 127). Humans have the capacity for the "creation of knowledge, not only for the sake of survival but for its own sake" (p. 107).

But now we want to ask in what sense this rational selection that transcends natural selection still constitutes an evolutionary epistemology of some nonbiological or transbiological kind. The word *evolutionary* here means only "historically developing." Wuketits really prefers to call his view a "theory of systems conditions" (p. 23). "Culture can be understood as the most sophisticated learning process requiring particular modes of explanation and as a particular type of evolutionary epistemology. This type of evolutionary epistemology, too, requires a view of (cultural) evolution that goes beyond strict Darwinism and is to be characterized as a systems view" (p. 127).

So are we humans extraordinary or not? The answer is yes on the odd pages of the book, no on the even ones. Take statements like these: "Information processing in humans, too, can be explained as an evolutionary phenomenon" (p. 4) or "Any powers we have, be they at the organic or mental level, are to be explained, then, as results of organic evolution" (p. 2). And set them side by side with statements like these: "Indeed one thing makes humans unique in the animal kingdom: our capacity for *culture*" (p. 29); "The biological approach is needed but not sufficient to explain the peculiar paths of cultural evolution" (p. 30); "The principles of cultural evolution are not the same principles we know from organic evolution. . . . Cultural evolution requires explanations beyond the biological theory of explanation" (p. 31); or "No advocate of evolutionary epistemology would deny the peculiarity of (human) rational knowledge" (p. 54). We say in one sentence, "Cultural evolution indeed is a break with organic evolution; at least, it is a new *quality* in the long chain of evolutionary processes since the origin of our universe some 20 billion years ago." We say in the next sentence, "Cultural evolution can be regarded as a particular case of the universal natural history" (p. 135).

You can say if you like that this is still evolutionary epistemology, but all that is really meant is that human knowledge, though unique, shares with evolutionary natural history a developmental character. The evolutionary perspective has won, but this is a pyrrhic victory if anyone thinks much, or anything, has been reduced to biology. Human knowledge in culture, though it "is a result of" (p. 6) evolution, "is not ontologically reducible to" (p. 7) mere biology.

So what is the cash value of evolutionary epistemology? Human ideas develop historically and are not static and immutable (p. 49). Also, "the Kantian a priori is to be interpreted as a phylogenetical a posteriori" (p. 81). An individual human may have a priori knowledge that is innate in his or her genes, but it is only there as a result of an evolutionary selection for such knowledge. We might think that evolutionary epistemology precludes the Kantian transcendental epistemology; but no, that too is possible (p. 184). It means "emergentism": "that mind is an evolutionary novelty and that it is not to be reduced to brain in an ontological sense . . . but that it has emerged" (p. 196).

One thing Wuketits is quite sure of is that evolutionary epistemology means that there is nothing supernatural, or, as he terms it, supranatural. The logic here seems to run as follows: If evolved, then not divine. "Species are not immutable and . . . their transformation is due to *natural* forces (and not to any spiritual principle or God's action in the world)" (p. 12). "*Homo sapiens* is the result of long-term evolutionary processes; our emergence is not due to supranatural causes but to natural mechanisms" (p. 33). "Mental capacities emerged. . . . Therefore, we have no reason to believe that mind had to be imposed by a deity" (p. 197).

Here *Zygon* readers may wonder. When humans emerge, able to transgress animal capacities, and reflect rationally, choosing the best hypothesis, evolution is "producing a system whose functional properties differ fundamentally from those of all preceding systems" (p. 108, following Konrad Lorenz). "The human brain has produced cultural systems that have developed characteristics that transgress their producer, so to speak: that is, characteristics that cannot be sufficiently explained by their producer's evolution" (p. 127). "The pyramids of Egypt and the myths around them have no adequate biological explanation" (p. 131). "Humans did not create culture to be better adapted to their environment and to be better and more efficient vehicles for their genes; culture, as an extrasomatic product of human systems, does not serve only for survival in a strict biological sense. . . . Darwinian fitness cannot explain any outstanding cultural creativity" (p. 145). "Cultural evolution is to be characterized by a novel mode of information processing (language, writing) that has no predecessors in organic evolution" (p. 151). All such cultural activity may be natural, but it advances beyond anything previously known in biological or physical nature, and cannot be explained by it. So how can we be so sure this is just natural?

If nature underdetermines all these outcomes, then the natural premises really do not contain the cultural conclusions. That is what transgressing, going beyond, means. But Wuketits wants no resort to mysticism or religion. "The emergence of life on earth can be explained without resort to any mystical factor" (p. 108). Nor does he permit any metaphysics. "Metaphysics in its widest sense is identical with *irrational* belief" (p. 200).

But Wuketits resorts to a lot of mumbo jumbo about repeated transgressions, getting something higher by going beyond something lower, astonishing emergence, and results that are not reducible to their causes, then baptizing it all "evolutionary epistemology," as though a scientific-sounding name could cover up the hocus-pocus.

From physical premises one derives biological conclusions, and, taking these in turn as premises, one derives cultural conclusions. One derives rational action from causal reactions. Maybe we have a naturalized epistemology. Still the result, the output (humans), quite serendipitously exceeds ("transgresses") the causes, the input of sheer matter and energy. Maybe all this is not supernatural, but nature the consequence (result) regularly supersedes the precedent (cause), superposing inexplicable novelties, especially in the human realm. Such a story could veil more of the divine than Wuketits allows, not in spite of these startling developments, but because of them.

When Wuketits reaches ethics, he is adamant that there is nothing morally normative in biology (pp. 200–204): "As a scientific theory, evolutionary epistemology contains only descriptive premises, . . . it does not contain prescriptive premises" (p. 201). Since evolutionary epistemology is the only kind there is (the only respectable, scientific kind), one wonders where we are going to get any ethics for the cultures which, Wuketits has also adamantly maintained, operate with new qualities unprecedented in biological nature. This is an especially acute problem since metaphysics and religion are not allowed and there is no help in science. In Wuketits's book there is simply no answer.

In desperation, we might then turn to the Niteckis and their *Evolutionary Ethics*. The Niteckis are both at the Field Museum of Natural History in Chicago, and this collection comes out of a conference held there. But hopes here will be soon dashed, for we are warned at the start that the book is mostly controversy; the authors are diverse and disagree, and there are no conclusions. Perhaps these authors illustrate, confusedly and splendidly, that Wuketits is right: evolutionary ethics is one thing we cannot get from an evolutionary epistemology.

The Niteckis include several classics (a long extract from Thomas H. Huxley, for example), as well as contemporary discussion (with advocates of evolutionary ethics Michael Ruse and Richard D. Alexander facing a host of skeptics—Elliott Sober, George C. Williams, Alan Gewirth, and others) and a section on the pros and cons of sociobiology (with a long, excellent article by Daniel J. Povinelli and Laurie R. Godfrey, "The Chimpanzee's Mind: How Noble in Reason? How Absent of Ethics?").

We can take only one example here. In the section advocating evolutionary ethics, consider Alexander's discussion of morality and deception. Humans have evolved so that they will act (unless they make mistakes) to maximize their offspring and genetic relatives; all ethical behavior comes under this constraint. Ethics is self-interest. But people do not admit this—indeed, people do not know this—and they say they sometimes help others altruistically. So there must be deception, lots of it. The deception is twofold. The moral agent (so-called) deceives others into thinking that they are gaining by the agent's sacrifice, when really the aider is gaining more than the aided; by this deception the putatively moral self wins and the other loses. At a second level, these putatively moral people even deceive

themselves about doing this, because that makes them still more effective deceivers. "People do not see themselves as designed to maximize their inclusive fitness. They do not think of their activities as serving only reproduction. They tend to be hostile to any concept or discipline that seems to rely upon this kind of reduction" (p. 183). Alexander laments that even academics, including philosophers and other highly educated people, such as Wuketits, resist his theory.

How are we to explain this? Simple: "If morality is actually an evolved phenomenon—a way people have worked out to serve their own interests in ways that tread on the toes of others in acceptable fashion—then anyone who analyzes morality, who attempts to bring its cost-benefit decisions into his own and others' consciousnesses, is likely to be judged immoral both for doing it in his own mind and for trying to cause it, or risking its happening, in others' minds" (p. 187). So the deception rises even higher, to a third level. People who resist Alexander's theory are doing so because it is in their self-interest to resist his theory, and this is deceptively disguised as their interest in defending authentic morality.

If that is so, then it is pointless to continue on and consider the arguments of the skeptics in the next section. None of these skeptics thinks, we might add, that Alexander is immoral, but they do think he is wrong. But there is no need, really, to consider their protesting arguments, if Alexander is right. We already know what they are doing, deceiving us by sincerely pretending to seek the truth. We might also want to protest that Alexander needs to meet their arguments and not attempt an end run around them. But if he did that he would be seeking the truth himself, not just trying to maximize his own offspring, and he might himself prove to be a counterexample to his own theory.

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Integrity in Depth. By JOHN BEEBE. Carolyn and Ernest Fay Series in Analytical Psychology. College Station: Texas A&M Univ. Press, 1992. 165 pages. $19.50.

John Beebe, a Jungian analyst based in San Francisco, has produced a book that surprises by the passion with which it defends an old-fashioned virtue that would seem to need no defense and about which little if anything new might be expected to be said: integrity. As Beebe notes in his short prologue, a patient of his defined integrity as what happens when "you take responsibility for what you do." This short definition—along with Polonius's nostrum "To thine own self be true"—might seem to make a longer treatise irrelevant, but Beebe goes on to surprise us with one insight after another, and by the end of the book we are delighted that so much could have come out of so little, as though a large white rabbit had been pulled out of a baseball cap.

Perhaps this is because there is something magic about the word itself. *Integrity,* writes Beebe, is "a word we have used like a magic spell to protect

what is purest in us from danger" (p. 5). Indeed, in his first chapter, "A Psychological Definition of Integrity," Beebe shows how integrity is the ethical foundation of our sense of self, and loss of integrity the greatest disaster that can befall the self. And integrity is not only a question of ethical definition. For Beebe, who switches courts between ethics and psychology with great ease, "psychotherapy has been forced to realize . . . that its principal subject matter has always been, not, as Freud thought, pleasure and unpleasure but rather integrity and violation" (p. 19).

As a Jungian, Beebe senses that an archetype lies behind the power of the abstract term *integrity* to fascinate and enthrall us; in the course of his book he examines some of the ways this archetype has been represented throughout history. In his discussion of Cicero's *De Officiis* (*On Obligations*) he refers to it as the "archetypal idea of morality" (p. 15), yet he recognizes that "by themselves, archetypes have little integrity . . . and they are for that reason usually dangerous guides when we are trying to decide how to behave" (p. 27). But there is a coordinating principle behind the world of conflicting archetypal pressures, and Beebe shows that it is the archetypal force field of the self that harmonizes the conflicting demands of the other archetypal fields. Integrity, which Beebe goes on to identify with the *te* of the *Tao Te Ching*, may thus be seen as the moral force representing the self, inasmuch as it promotes a sense of a wider whole and fosters "a dynamic participation in the needs of the whole" (p. 32).

Beebe's second chapter, "The Shadow and Integrity," examines the experience of the compromising of integrity, with its concomitant feelings of anxiety, doubt, and shame. But this experience, however painful, is therapeutic: "It is anxiety for a threatened integrity that fuels the process of psychotherapy in the first place" (p. 38); indeed, in our daily lives "we are always . . . restoring our integrity from some attempt at compromise" (p. 40).

Accompanying the affective experience of integrity and its violation is an archetypal image that Beebe intriguingly names "the dreaded Puritan forefather" (p. 41). Perhaps Beebe's most original contribution in *Integrity in Depth* is to reenvision this "cultural parent," who has been reduced to the status of a skeleton in the closet of the modern psyche. Although Beebe goes into less detail than I would have hoped, he makes clear why he considers the Puritan movement in England and America to have constituted a "high water mark for the culture of integrity" (p. 42), and why the Puritan, embodied especially in the figure of Milton (who brought the word *integrity* into the English language), represents for him a Wise Old Man and not a Mean Old Man, "a healthy father" rather than a "restrictive negative father," or *senex* (p. 59). Beebe sees the "revival of an image of integrity that dropped away after the Puritans" as serving "a moral process that is free, yet binding in its acceptance of a higher authority" (p. 55). In praising "the Puritan doctrine of sin, contrition, and penitence" as "a psychology of healing through shame," Beebe goes so far as to say that "what we have today is a memory of guilt without a sense of shame to enable us to process it" (pp. 66–67). I am not sure that I agree with Beebe on this point. I question in particular whether his revalidation of shame could not be used to support politically reactionary and psychologically regressive positions that he is himself quite far from supporting. In other words, I don't feel Beebe knows quite what he is getting into when he gaily conjures up the spirit of the

"dreaded Puritan forefather." (Is it because I unconsciously identify this spirit with Bob Dole?)

In his third chapter, "Integrity and Gender," Beebe introduces an unexpected cultural heroine of integrity: Jane Austen. The virtue of "constancy" so often praised in her novels, says Beebe, "made her fiction the quintessential expression of a feminine view of integrity" (p. 75). Beebe distinguishes from the male style of integrity exemplified by Milton a female, "receptive style" that is seen, somewhat paradoxically, as that of Jung himself. For Jane Austen is a stalking-horse: Beebe uses her to introduce an original critique of Jung, who, in spite of his "achievement . . . in constructing for himself an essentially healthy matriarchal psychology" (p. 84), was unable in the long run to maintain within himself "a comfortable tension between a solar masculinity that is aggressive and a lunar masculinity that is receptive"—perhaps because he feared "his own unusually strong phallic potential" (p. 92). These remarks contain a major insight into Jung's personal temperament, and demonstrate how a dedicated Jungian such as Beebe can be both sympathetic and clear-sighted in his perception of his own major cultural hero.

Beebe's analysis of Jung, provocative and insightful as it is, ultimately serves the purpose of revealing a broader cultural problem, for which neither Austen nor Jung was able to imagine a solution: the balancing of solar (aggressive) and lunar (receptive) energies by both men and women. According to Beebe (who credits Howard Teich and Murray Stein for some of these ideas), Western patriarchy has encouraged solar masculinity and lunar femininity, and has discouraged lunar masculinity and solar femininity. This one-sided emphasis has damaged the sense of psychic integrity of men and women alike. I would add that, through the struggles of modern feminism, women already have done much to reclaim their solar femininity; it is now the pressing task of men to redeem their culturally suppressed lunar masculinity.

The final chapter, "Working on Integrity," introduces for a moment what is no doubt the most surprising of Beebe's archetypal images of integrity: the ghost of Hamlet's father. Unlike Polonius, who represents only the appearance of integrity ("persona integrity"), the ghost of Hamlet's father embodies "true integrity in depth" and "beckons to the prince like a stage of psychological development that has been cheated" (p. 101). This is a tantalizing remark, and I wish Beebe had elaborated on it. But his main interest in this chapter seems to lie in presenting a Jungian approach to the inferior function as a key element in gaining access to integrity, as a detailed episode from a case study demonstrates. According to Beebe's theory, the line connecting a person's most developed psychological function (superior introverted feeling, in the example given) to the inferior, or fourth, function (in this case, inferior extroverted thinking) constitutes the "spine" of a person's integrity. Being true to oneself in more than Polonius's superficial sense involves being true to one's psychological type, with all its strengths and weaknesses, and functioning in an "upright" manner—"real integrity ultimately depends upon the claiming of this spine in each of us" (p. 107).

Beebe ends his book with an analysis of one of the Grimms' fairy tales, "The Three Army Surgeons." (The reader should know that the Grimms' fairy tales have become almost holy writ for Jungians sailing in the wake of

Marie-Louise von Franz, including Robert Bly, whose best-selling book *Iron John* is an exhaustive—and, yes, occasionally exhausting—commentary on one such tale). What Beebe concludes from his reading of the fairy tale is a more or less fitting conclusion for his surprising and insightful book: "Real work on integrity means more than taking the lofty position, it also includes accepting the shadow and the impure parts of the collective human and animal character into oneself" (p. 124).

In this short and stimulating book John Beebe has demonstrated that integrity is not the virtue of the stuffed shirt Polonius, out of whom Beebe may be said to have knocked the stuffing. For Beebe, accessing integrity requires being true to *all* of oneself, including, I would add, that lying and cheating part of oneself that (*pace* Polonius) is quite capable of being false to other people. Integrity requires that we accept our shame, lunar masculinity and solar femininity, and what von Franz has called "the barbaric quality of the inferior function." With Beebe's book inspiring us, we may all make some progress.

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