



IS EVIDENCE-BASED PSYCHIATRY ETHICAL? by Mona Gupta. New York: Oxford University Press, 2014. 224 pages, appendix, references, index. Paperback; \$52.95. ISBN: 9780199641116.

What would make anyone question the ubiquitous authority of evidence-based practice in healthcare today? Evidence-based practice is the *sine qua non* of practice in all areas of healthcare. It is the guiding light by which the expert clinician steps through the maze of clinical, legal, ethical, moral, and political issues that affect contemporary practice. It is the holy grail of clinical science. But not for Mona Gupta, who, in her book *Is Evidence-Based Psychiatry Ethical?*, reminds readers that clinical practice involves a rational appreciation for the needs and goals of individual persons who have come for treatment and that determination of those practice goals needs to take place with an understanding of personal values in the context of human relationships, not only in the utilitarian context of statistical analyses and significant findings. In less technical language, I would summarize Gupta's message as the idea that clinical practice in psychiatry should be administered with a large dose of humility and rational, self-reflexive critique, so that psychiatrists do not repeat psychiatry's past abuses of power or utilitarian motivations that have nothing to do with the treatment goals of a particular individual.

Gupta lays out her argument in nine chapters that act as a primer to understanding the field of evidence-based psychiatry (EBP) in the context of the larger field of evidence-based medicine (EBM). In her first chapter, she provides an overview and justification of the book. Gupta unreservedly points out some of the problems faced by contemporary psychiatry—that it has a history of association with harmful treatments and poor public opinion, that it is not viewed as a real science, that distinctions between normalcy and abnormality seem based on beliefs and values, and that psychiatry's ethical value is, therefore, questionable. Gupta engages a discussion of how psychiatrists have migrated EBM to psychiatry without considering whether the assumptions inherent in EBM can even be applied ethically and morally to the practice of psychiatry.

In chapter 2, Gupta defines concepts and terms associated with EBM, as well as the basic steps inherent to ethical decision making in medicine. Her writing is informed by analysis of two foundational texts, as well as interviews of people whom she considers experts in EBM. Chapter 2 amounts to a close reading of ideas in the field of EBM and stands as an informed critique of its basic premises and promises, including gaps, which she identifies as "areas of uncertainty" (p. 6). She extends her critique of EBM in chapter 3 through a discussion of the broader literature concerning not only the role of ethics in EBM, but also the conflicting views on the benefits and difficulties of its use and promotion.

Chapters 4–6 have a similar structure and intent as chapters 1–3, but they are more specifically applied to EBP. An interesting aspect of this discussion focuses on the epistemology of psychiatry and its ties to philosophical concepts of mind. Another is an analysis of basic assumptions and

biases within the discipline of psychiatry and EBM as well as how the ethics of EBM apply to psychiatry. What becomes very apparent in this discussion is the increasing gap between clinicians who see psychiatric conditions as having a fundamentally biological etiology and those who take a more biopsychosocial and spiritual approach to the understanding of health. In addition, Gupta points to disagreements in terms of how health resources are allocated in our society, and whether a utilitarian approach to psychiatry constitutes ethical practice.

Chapter 7 is a report on Gupta's group interviews of mental health experts, philosophers, and EBM developers about their views of ethics in the context of EBM. Main points that emerge from the interviews include (1) how EBM arises out of political and social trends; (2) whether EBM "is value-free or value-laden" (p. 149); (3) discussion and contrasting of the main goals of EBM, these being to improve health outcomes and satisfy patient preferences; and (4) whether EBM should be used to allocate resources. Gupta elaborates on each of these main points, but at one point overgeneralizes the discussion, stating that "mental health experts and philosophers disagree. Evidence is not value-free ..." (p. 164). It would be more prudent, in the context of her discussion, to claim that "EBM developers and philosophers disagree," as many mental health experts are eager to point out that social science and, indeed, all of science is anything but a values-free endeavor.

In chapters 8 and 9, Gupta provides a summative discussion and offers conclusions about the ethics of EBM, contrasting it with several other approaches to practice, including the biopsychosocial model. Essentially, Gupta argues that EBM cannot form the totality of ethical practice, which must always be situated within the values-informed reality, what I would call the "phenomenology" of the person seeking treatment. However, she acknowledges the virtue of EBM's "call to cultivate intellectual virtues, both intellectual (e.g., judiciousness and explicitness) and moral (e.g., conscientiousness, honesty, courage; p. 177).

Throughout this text, Gupta methodically works through complicated and detailed information about ethics, psychiatry, medicine, and evidence-based practice. The book is a goldmine of information about these issues as they pertain to psychiatry and ethics. For people working in psychiatry who have not been exposed to these arguments, the book is a comprehensive introduction to the assumptions, biases, ideological influences, and moral divides within the discipline.

For those who have considered these matters before, the book provides more-limited insight into the differences in thought and approach to the topic of ethics between philosophers, clinicians, and clinical researchers invested in EBP. However, some readers might find the discussion familiar, as many of the arguments in the book parallel discourse in the philosophy of science that critiques positivism and scientism. In fact, at many points in the book, the reader might replace EBM and EBP with the word "science," and the discussion would be very reminiscent of arguments about scientism, objectivity and neutrality, researcher bias, and concept reification that have been debated widely over the years.

Nevertheless, the author situates these arguments within the particularities of psychiatry, which makes the book use-

Book Reviews

ful to those in that field. For example, the book addresses topics such as the social context and politics of mental health funding; service structure and administration; who sets the mental health agenda; and the influence of insurance, governments, and research-focused organizations. Moral issues related to prioritization of the needs of the individual versus the needs of government, funding bodies, personal bankrolls, and corporations are discussed at several points in a fashion that provides for rich perspective with a tone of *parrhesia*, candidly laying bare some of the most difficult moral concerns of the discipline.

The book is not without other challenges. As I read, I wondered who the audience for the book really was and, at times, found the structure and content somewhat tedious. I found myself thinking that it reads like a doctoral dissertation, only to realize later that the text is based largely on the author's (2009) dissertation. The text is thick on detail but not fast on delivery. A clinician having limited time for continuing education would well be advised that the text is not a page-turner. Transforming a dissertation into a published monograph is not easy, in part because the audiences can be quite different. As a result, the book is useful for those who have, or are required to have, the time to devote to this text. Unfortunately, Gupta's text does not actually succeed in bridging that gap between academia and clinical practice that she identifies as a basic problem within the discipline.

Throughout the text, I was also distracted by vacillation between EBM and EBP. While Gupta defined the differences between these terms well, at times I found her discussing EBM, when I really was wondering more specifically about the implications for EBP.

Finally, I have some concerns about the scope of the text itself. Focusing specifically on psychiatry is reasonable, as this is the author's area of training and practice. However, Gupta has addressed a topic important to mental health, not just to psychiatry. As a result, the text contributes to the fragmentation of discourse in mental health that detracts from ethical and moral delivery of services to those in need. A considerable amount of thought and research comes from psychology, nursing, and other allied health disciplines. Psychiatrists would do best not to reinforce the intellectual silos within mental health, as this perpetuates the very problems Gupta discusses as being central to her field.

Reviewed by Theresa Zolner, Associate Professor of Psychology, The King's University, Edmonton, AB T6B 2H3.

PHILOSOPHY & THEOLOGY

BEING AS COMMUNION: A Metaphysics of Information by William Dembski. Surrey, UK: Ashgate, 2014. xvii + 218 pages. Paperback; \$34.95. ISBN: 9780754638582.

William Dembski, author of *Being as Communion: A Metaphysics of Information*, holds a PhD in philosophy and another in mathematics. A Christian theist of broadly evangelical leanings, he is probably best known for his role in the emergence of the controversial intelligent design movement. His previous two books, *The Design Inference* (1998) and *No Free Lunch* (2002), develop and deploy an information-theoretic apparatus for identifying and ana-

lyzing patterns in nature whose origin and development, Dembski argues, materialism is constitutionally incapable of explaining. In these two books, he argues that materialist science only appears to account for the informational complexity of nature because it surreptitiously helps itself (as in a "free lunch") to an unconfessed teleology disguised as chance and necessity, thereby appearing to keep the world free of nonnatural sources of telic agency such as God or immanent teleology (which might require a "design inference"). His most recent book, the subject of this review, completes Dembski's trilogy on intelligent design by further expanding on and articulating the philosophical underpinnings of the two earlier books' themes. While he wrote *Being as Communion* to give us "a metaphysical picture of what the world must be like for intelligent design to be credible" (xiii), much of its content holds interest and value beyond the vicissitudes of the intelligent design research program itself, and therefore (despite its place in the trilogy) functions well as a "stand-alone" book for those new to Dembski's work.

The numerous philosophical, scientific, and theological ideas that find their way into these 200 or more pages of sophisticated critique, argumentation, and speculation cannot be adequately represented in a review of this size. My goal, therefore, will be merely to give the reader a sense of some of what this book offers in the way of topics and issues, and then conclude with a few brief comments on its accomplishment.

Dembski opens his book, setting the stage for what he will call his metaphysics of "informational realism," by drawing attention to a deep, yet largely ignored, tension between our present age of information and the West's underlying materialistic worldview: if we embrace materialism, which renders reality into nothing but massy particles agglomerated by nontelic material forces, then most of the things (information included) that we have valued throughout history (values included) "become dim reflections of their former selves," a disenchantment of reality which, when squarely faced, cannot but lead to "the ultimate dissolution of all human aspiration" (pp. 4–5). Dembski believes that his informational realism lays the basis for preserving the transcendent realities of human aspiration which materialism must render as mere appearances. In the final sentence of his book, Dembski concludes that "the information approach to reality takes the world as it is" (p. 203). And "the world as it is" gives itself to us already rife with minds, meanings, values, and purposes, none of which can be taken seriously for long by either materialism or a civilization beholden to materialism's atomistic and reductionistic strictures. Thus, what we find between the first and the last chapters of this book is an attempt not only to preserve the West's humanistic heritage but also to resituate it in the context of a metaphysics of information that establishes a fundamentally relational ontology capable of fostering unfettered scientific inquiry that is open to wherever evidence leads and is thus free to take "the world as it is." Dembski's two principal aims in this book are, therefore (1) to build a convincing case for the many explanatory and existential advantages of an info-centric paradigm switch that would replace the interaction of particles with the exchange of information as reality's most basic modality of operation, and (2) to supply the conceptual and theoretical sub-structure to support this rather radical move.

In the nineteen chapters separating his first and last chapters, Dembski identifies, refines, and deploys the conceptual tools required to forge the theoretical underpinnings of his metaphysics of informational realism, taking the reader on a fast-paced, often high-altitude journey through a vast array of heady mathematical, scientific, and metaphysical passes, along with a few exhilarating detours to various theological precipices. In this short work, he manages to engage and develop a whole host of concepts and theories in terms of their bearing on his informational realism project. The reader will become familiar with various interpretations of quantum physics, information theory, and probability theory, along with a few recently developed mathematical postulates such as the “no free lunch” and “conservation of information” theorems, as well as topics in the biological sciences, such as neo-Darwinist and intelligent design accounts of biological complexity, natural selection, teleonomic vs. teleological laws, and genetic algorithms. In the light of his informational realism metaphysic, Dembski also illuminates for the reader a number of issues in metaphysics, such as determinism, contingency, necessity, causal closure, multiple realization of supervening properties, embodiment, immateriality, randomness, and panpsychism—and even a few momentous theological issues, such as divine concurrence, providence, free will, miracles, resurrection, and immortality.

Despite the occasional abstruse mathematical theorem and a steady flow of abstract conceptual notions, *Being as Communion* is a surprisingly enjoyable read, due largely to the many interesting issues covered, the plentiful use of examples, and the clarity of Dembski’s prose. And for those already familiar with the intelligent design movement, this book does much to clear away some long-standing misconceptions that have diminished its appeal. The book as a whole, however, can be somewhat frustrating. The internal logic of the progression of chapters and topics is not readily discernible. There were a number of better ways Dembski could have built his argument and organized his book to enhance its cogency, increasing significantly the ease of informational uptake of the book’s message.

Leaving aside issues of improving the book’s form, I will offer in closing a couple of comments on its content—one commendatory, two critical. I liked the book’s burden, which I took to be that of forging a metaphysics capable of grounding an informationally porous universe to recover, legitimate, and sustain creation’s enchantments: those meanings, values, and purposes uniquely given to human intelligences that have been progressively dispatched into the realm of epiphenomena ever since the rise of early modern science.

I struggled, however, with Dembski’s failure to clearly separate materialism from physicalism. Unlike materialism, physicalism has no essential connection to matter; physicalism is committed only to those entities the best physics of the day deems the most explanatorily basic. One can therefore be a nonmaterialist and a physicalist. In fact, I would say that most physicists are nonmaterialist physicalists (could a materialist coherently embrace quantum physics?). I think the real demon Dembski is out to slay is not materialism (whether metaphysical or merely methodological) but ateleological physicalism.

My second problem is not unrelated. Dembski could have done a better job of helping his reader understand how

his informational realism differs, if it does, from a flat-out metaphysics of idealism. Given that he contends reality is “information all the way down” (p. 198), understands God’s mind to be the original and ultimate impartor of information to reality (p. 187), and embraces a co-ontologizing relational ontology of information (p. 167), it seems to me that Dembski’s metaphysics is better construed as one of informational antirealism. Perhaps Dembski’s use of realism here is more rhetorical or strategic, allowing him to adopt the likes of naturalist-nonmaterialist-teleologist-realist Thomas Nagel into the intelligent design family.

If you are someone who is drawn to the latest meme of *information*, and you are a theist, then Dembski’s book is a must read. However, even if you are like me and not so taken with that meme (I find it too skeletal a notion to carry the semantic weight of “communion” in his title), and even if you are not a theist, you are nonetheless likely to find lots in this book to expand your mind.

Reviewed by Robert Doede, Professor of Philosophy, Trinity Western University, Langley, BC V2Y 1Y1.



TECHNOLOGY

THE INNOVATORS: How a Group of Hackers, Geniuses, and Geeks Created the Digital Revolution by Walter Isaacson. New York: Simon & Schuster, 2014. 488 pages, index. Hardcover; \$35.00. ISBN: 9781476708690.

Walter Isaacson, the former chairman of CNN and managing editor of *Time*, has previously written biographies of Steve Jobs and others. In this latest book, he presents a fascinating and very readable account of key people in the development of both computers and the Internet, from Ada Lovelace and Charles Babbage in the mid-1800s to the beginning of 2014. What makes the book especially enjoyable to read is his focus on the backgrounds of these people and how they collaborated to produce the digital world we know today.

A common belief is that innovation results from the creativity of great individuals. While acknowledging the role played by such individuals, Isaacson frequently points out that innovations are more often the result of collaboration involving people of diverse talents. In his Introduction, he asserts that “the tale of their teamwork is important because we do not often focus on how central that skill is to innovation” (p. 1), while in his final chapter, he summarizes the lessons learned from a study of the history of computing and the Internet. He notes, “First and foremost is that creativity is a collaborative process. Innovation comes from teams more often than from the lightbulb moments of lone geniuses” (p. 479).

Another central idea that permeates the book is the notion of human-machine symbiosis: human minds working with computers to excel at a task by combining the things that humans do especially well and computers do poorly if at all, and vice versa. As an illustration of this, he cites a chess tournament held in 2005:

Players could work in teams with computers of their choice... But neither the best grandmaster nor the most powerful computer won. Symbiosis did... The final winner was not a grandmaster nor a state-of-the-art computer, nor even a combination of both, but two

Letter

American amateurs who used three computers at the same time and knew how to manage the process of collaborating with their machines. (p. 476)

A third notable observation that shows up repeatedly is that “the truest creativity of the digital age comes from those who are able to connect the arts and sciences” (p. 5). In the first chapter, Isaacson presents Ada Lovelace as such a person, and he comes back to her in the final chapter, entitled “Ada Forever.” He also credits her with being the first to conceive of the idea that computing machinery might one day do more than just calculate, citing from the notes she made concerning the Analytical Engine:

The Analytical Engine does not occupy common ground with mere “calculating machines” ... In enabling a mechanism to combine together *general* symbols... a uniting link is established between the operations of matter and the abstract mental processes... The Analytical Engine weaves algebraical patterns just as the Jacquard loom weaves flowers and leaves. (p. 26)

One other thing that this reviewer found interesting is the number of key individuals who were sons of ministers. While Isaacson does not make an explicit point of this in his introduction or conclusion, this observation often arises in his presentation of the backgrounds of individuals. In particular, he attributes the culture of Intel, “which would permeate the culture of Silicon Valley” (p. 192), to Robert Noyce’s background as a son and grandson of Congregationalist ministers, a denomination he describes as being characterized by “the rejection of hierarchy and all its trappings” (p. 189).

While the book covers a lot of ground, this reviewer found it surprising that one important innovation, the UNIX operating system, and one key individual, Ken Olsen, were not discussed at any length. But maybe that is just the prejudice of one reviewer! Nevertheless, the book is fascinating and very readable. While not explicitly dealing with issues of faith and science, it provides a very thorough overview of the origins and rise of personal computers and the Internet. The last chapter alone, “Ada Forever,” is well worth reading for its discussion of artificial intelligence and human-machine symbiosis, as well as its summary of key lessons from the history of digital innovation.

Reviewed by Russell C. Bjork, Professor of Computer Science, Gordon College, Wenham, MA 01984. ♦

Letter

Thinking Consistently and Coherently about Truth

I came to Caltech to study science in the 1950s, bringing with me an evangelical Christian faith. I knew I’d acquire knowledge there that would conflict with what many people in church believed, but decided that since scientific truth is about the universe God created, I should always hold Christian faith and the truths learned through scientific inquiry in a consistent, coherent way, treating each with the respect it deserves as valid knowledge. That decision has borne lifelong fruit in a long academic career in secular universities.

I know or have known many Christians trained in the sciences, who have professional careers based on scientific

knowledge, and who through life rely on such knowledge in their daily work. Some are engineers; some are medical doctors; some are secondary school science teachers; some are technical people whose skills employ scientific knowledge every day. But to my dismay I find that many of them are unable or unwilling to think consistently about truth in science and the truth they hold in Christian faith.

When scientifically literate Christians endorse recent-earth creationist propaganda themselves, or present it to others as a legitimate alternative to established scientific knowledge, they create a kind of chaos for rational discussion. I’m puzzled and troubled that time and effort must be taken listening to such propaganda (or trying to refute it). Currently an influential and popular source of creationist propaganda is the media empire run by a person named Ken Ham, and the “Answers in Genesis” media system Ham controls. As others have pointed out, Ham’s empire is lavishly funded—to the tune of millions of dollars per year. My own life experience has taught me that when money and truth collide, truth often suffers.

It should not surprise anyone if all devotees of Ken Ham or other recent-creationist propaganda sources were uneducated persons without any knowledge of science. The real shocker is that some Christian people who repeat such propaganda to others have received scientific training adequate for their professions and daily work. It’s reasonable to infer that they haven’t really examined their belief-set for consistency and coherence as an account of the world we all live in. When goaded to desperation by gadflies like myself, some of these Christians even suggest that God may have created the world to “look old”—fooling us scientists and other naïve persons to follow the “evidence” showing its age. But this suggestion is truly blasphemous, because it implies that God is a liar.

The origins of recent-earth creationism are well known, and they are both theologically and scientifically suspect. Being a Christian does not require a scientifically trained person to defend or endorse anti-scientific arguments about the universe’s age (and therefore ignore the scientific evidence for a 12–15-billion-year-old universe and an earth almost that old). This is especially relevant if such arguments contradict scientific knowledge on which we rely in daily life and work. In the first place, recent-earth creationist arguments have nothing to do with the gospel; in the second place, they are based on a naïvely literal interpretation of the Genesis creation accounts. So why, in spite of this, do some people with good scientific training and lifelong professional experience using it, still endorse or even believe propaganda that openly contradicts reliable scientific knowledge? So far, explanations I’ve come up with for this odd inconsistency have nothing to do with truth; they have far more to do with family relationships, smoothing over disagreements arising from different educational backgrounds, and so on. But carrying around worthless baggage cripples sound Christian apologetics, and with Elijah, I would ask the same harsh question: *how long will you go limping along with two conflicting opinions?* (1 Kings 18:21).

Walter R. Thorson
ASA Fellow
Professor of Theoretical Chemistry (Emeritus)
University of Alberta

 ♦