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BOOK REVIEWS

The Placebo Response and the Power of Unconscious Healing by Richard Kradin. Routledge, 2008. 296 pp. $40.00 (hardcover). ISBN 978-0-415-95618-5.

The placebo effect—roughly speaking, the effect a treatment has simply because people believe in it—has probably accounted for the positive outcomes of most medical treatments throughout history. According to one estimate, the vast majority of more than 20,000 ancient remedies catalogued and used by Asian and European cultures for roughly 2 millennia worked—when they worked at all—entirely because of the placebo effect (Shapiro & Shapiro, 1997). The creation of modern scientific medicine in the mid-19th century eventually gave rise to the search for empirical evidence that interventions really worked as advertised. Nevertheless, the placebo effect still plays an enormous role in medical intervention today.

But how can a belief determine the outcome of a physical intervention? That's a question posed by medical researcher and clinician Richard Kradin of the Massachusetts General Hospital and the Harvard Medical School in a new book called *The Placebo Response and the Power of Unconscious Healing* (Kradin, 2008). As it happens, it's also the question raised in a number of other recent books, most notably one by neuroscientist Fabrizio Benedetti of the University of Turin (Benedetti, 2008; also see Evans, 2004; Guess et al., 2002; Harrington, 1997; Moerman, 2002; Peters, 2001; Thompson, 2005). Although there are a few skeptics out there (see Hrobjartsson & Gotzsche, 2001), there is strong consensus these days that the placebo effect, long ignored by serious scientists and practitioners, is something we need to understand and perhaps even employ deliberately to improve clinical practice.

Indeed, to ignore the role that belief plays in clinical interventions would seem to be folly. Hundreds of studies have now confirmed the power of the placebo in a variety of contexts, some demonstrating outcomes quite extreme and almost bizarre. The placebo response has been estimated to account for at least 75% of the effectiveness of major antidepressant drugs, for example (Kirsch & Sapirstein, 1998; cf. Kirsch et al., 2008), and occasionally placebo pills appear to outperform both prescription medications and herbal remedies (Davidson et al., 2002). Researchers have also found that simply stabbing a patient with a scalpel—that is, performing "sham surgery"—can produce benefits similar to that of real surgery (Cobb et al., 1959; Diamond et al., 1960; Mosely et al., 2002). Perhaps most impressive of all, placebo procedures also work with animals, even though animals presumably lack both the imaginations and belief systems some say are essential to placebo effects in humans. In a landmark study published in the 1970s (one of the first to put the placebo effect on the map with hard-headed bench scientists), Ader and Cohen (1975) showed that rats that had learned to associate

a saccharin-flavored liquid with the nausea-inducing effects of an immosuppressive drug had immosuppressive (and ultimately fatal) reactions to the saccharin water alone. It's no wonder that a recent national survey of physicians in the U.S. found that about half of them use placebo treatments regularly with their patients, with only 5% of them informing their patients that they're doing so (Tilburt et al., 2008).

Kradin's approach to the placebo effect, exemplified by the first two-thirds of his book, is largely straightforward. He begins, as one might expect of a member of the mainstream medical establishment, by admitting that he had paid little attention to the placebo effect for most of his career. When he began to run clinical trials, he "recognized that placebo effects could confound the interpretation of therapeutic results" (p. xii) and began to wonder "why one of the most important topics in medicine has for centuries been systematically neglected" (p. xiii). His belated exploration of this important subject is subsequently summarized: Yes, the placebo response is quite real in the treatment of depression, even producing measurable brain changes. Yes, alternative explanations can often be found to account for placebo effects. Yes, placebo pills can increase antibody levels and reduce symptoms. Yes, as Norman Cousins reminded us, healing is a holistic phenomenon, and state of mind can play a role.

Continuing his journey of discovery, Kradin deftly summaries hundreds of findings of this sort for the reader, weaving together readings from medicine, psychology, and other fields, demonstrating placebo effects in the treatment of anxiety, headaches, arthritis, ulcers, cancer, and other maladies, showing the role that context plays in the magnitude of the effects, and expressing concerns when he has them. The problem is that except for his skepticism and growing awareness, there's virtually nothing new or unique about his journey. At times, one wonders what took him so long, or why, presumably already having gained a full awareness of the phenomenon when he began writing his book, he presented his views with so much apparent angst.

That said, Kradin does what needs to be done: He gently chides modern medicine for its single-minded obsession with physics and linear causation, for its failure to see the person as a whole, and for the hubris routinely practiced by clinicians, who in fact often know very little:

> Many lay people harbor the erroneous notion that physicians know how most treatments work. Truth be told, there is hardly an effective treatment in which the mechanism of action is well known, and in some cases, physicians have absolutely no idea as to how their prescriptions actually work. (p. 66)

Continuing his journey, Kradin reminds us of the power that shamans and magic had—and often still have—to alter health and well being. Discovering Morton Smith's (1978) book *Jesus the Magician*, Kradin finds it "remarkable to consider the possibility that the placebo response may be basis of the dominant religions of the Western world" (p. 38) and perhaps even more remarkable that the first demonstrably effective drug—quinine—wasn't identified until the 18th century. He wonders why it's taken so very long for modern medicine to look with

proper humility and awe at the real mysteries and complexities of healing and properly blames drug companies—obsessed with "recouping their investment and making a profit" (p. 75)—for trying to turn attention away from the power of placebos, even going so far as to "exclude placebo-responders from their drug trials" (p. 76).

With few exceptions, when Kradin is rehashing what most experts on the subject already know about placebos, he does it well, and the exceptions are generally minor. One that's somewhat troubling is that he implies several times that the commonly used research design that evaluates a drug or other treatment by comparing characteristics of a treatment group to those of a placebo control group is adequate for identifying the placebo effect. In fact, the placebo/treatment comparison is only adequate for identifying the differential effectiveness of the *treatment* over the placebo. The placebo effect itself can't be identified unless a *third* group—a *no treatment* group—is employed. When improvement in the placebo group exceeds that of the no treatment group, the difference is likely due to the placebo effect. On a more trivial note, in discussing behavioral conditioning studies with rats, Kradin incorrectly identifies Richard J. Herrnstein, my advisor in graduate school, as "Robert Hernstein."

Kradin gets into more serious trouble when, increasingly, he reveals his struggles with the classic mind-body problem, or, as he calls it, the mind-body "conundrum." "René Descartes was correct," he says. "Mind and brain are categorically different, even if they are inextricably linked" (p. 171). His dualistic thinking never subsides, even when, at one point, he uncharacteristically asserts that "the idea that mind and body are distinct is patently absurd" (p. 147). Reviewing studies demonstrating that placebos produce changes in brain chemistry and activity, as a dualist, Kradin has no choice but to think that there must be something mysterious about this, and his solution is to take us into the murky world of "psychoanalytic inquiry"—a realm that doesn't easily connect with brain research, no matter how faithfully or exuberantly one spins those Freudian yarns. Borrowing from the ideas of neo-Freudians such as John Bowlby, Donald Winnicott, and Joseph Sandler, this is where, in the latter part of his book, Kradin says things that the other recent books on the placebo effect generally do not, such as: the placebo is a "protosymbol" for things such as "early dynamics with caretakers." Just how does one prove such an assertion?

I'll spare you further details of his ideas on the nonlinearity of brain processes and the emergent properties of mind (nothing surprising here) and instead make some assertions about the mysterious placebo effect that just need to be made. Yes, indeed, placebo effects in humans seem often to be mediated by cognitive processes; perceptions and beliefs about authority figures, for example, can make all the difference. But placebo effects occur in animals, for goodness sake, and virtually every experience we have—everything from copulating to getting a traffic ticket to getting a back rub—produces changes in the brain. Why do we suddenly need to worry about the mind-body conundrum or psychoanalytic

inquiry when we discover that a sugar pill, under specific environmental conditions and with certain individuals, can produce changes in health or behavior, along with corresponding changes in brain structure or activity? Why do we—or at least Kradin—feel so compelled to resort to the muddy and mystical when the facts themselves speak so plainly?

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