BOOK REVIEWS

A Statement of Principles

The Nazi Doctors and the Nuremberg Code. Human Rights and Human Experimentation. GEORGE J. ANNAS and MICHAEL A. GRODIN, Eds. Oxford University Press, New York, 1992. xxii, 371 pp., illus. $29.95.

The Nuremberg Code has always occupied a curiously ambiguous position in medical ethics and national and international law. Although some commentators reflexively consider it a watershed document that established a new and universal standard for human experimentation, its promulgation, substantive declarations, and intrinsic importance to the history of human experimentation are in fact the subject of persistent and profound controversy. The discussions George Annas and Michael Grodin have brought together in *The Nazi Doctors and the Nuremberg Code* reflect these disputes, not so much by resolving them as by exemplifying them. Many of the opposing perspectives on the Code appear in these chapters, and the editors, perhaps wisely, have made little effort to reconcile them. The result is a book that is at once disjointed, with interpretations explicitly at odds with each other, and engrossing, giving the reader genuine insights into the nature of the debates.

The Code itself, as Robert Drinan explains, emanated from the second of the Nuremberg trials that followed World War II. The first and much longer of these was the War Crimes trial. Convened under Allied auspices, it produced the "Nuremberg Principles," which were immediately adopted by the U.N. General Assembly and later codified in the Geneva Conventions. Under these Principles, the court convicted Nazi leaders of "war crimes" (that is, the deportation of civilians for slave labor, killing of hostages, and wanton destruction of cities and towns) and "crimes against humanity" (the enslavement, murder, and extermination of a civilian population, exemplified by the concentration camps and the genocidal practices). In short order, however, the Allies succumbed to a postwar fatigue with prosecutions, and so the United States proceeded unilaterally with the Doctors' Trial on the gross abuses committed in human experimentation. The judgment convicting 15 of the 23 defendants and sentencing 7 of them to death also included a declaration of principles that became known as the Nuremberg Code. But because it was the work of judges from only one country, the Code never achieved the standing in international law accorded the Nuremberg Principles.

In these essays, the Code emerges both as a tough-minded and even inflexible declaration of principles and as a narrow statement that remains too deferential to investigators and lacks all mechanisms for enforcement. Jay Katz is sympathetic to the first position, insisting that the Code's affirmation that "the voluntary consent of the human subject is absolutely essential" to all research was a formulation "too uncompromising and too inhospitable to the advancement of science" to gain widespread acceptance. Others note that the Code focused only on nontherapeutic research and did little to curtail the discretion of individual investigators. Two of its ten provisions, as Leonard Glantz notes, do protect "the subject's right to decide whether or not to become a research subject." The remaining eight are addressed to investigators, defining what they may or may not do even with the consent of the subject; thus, an investigator must take all precautions to avoid even remote possibilities of injury, and the degree of risk to the subject must be commensurate with the "humanitarian importance of the problem." But the Code leaves the burden of compliance to the individual researcher and makes no provision for collective oversight or implementation.

There is little agreement among the contributors about the ethical foundation for the Code's provisions. Some argue that it represents a distillation of an already prevailing consensus in medicine on what constituted appropriate research ethics; after all, the German Ministry of Interior in 1931 had enacted guidelines for human experimentation, although their precise legal status under the Nazi regime was disputed at the trial. Others, including Glantz, believe that the Code reflects "10 universal standards of human decency," which are so self-evident that he wonders why it was necessary to draw up a code—laws prohibiting murder and maiming were surely sufficient to the case. Still others, such as Ruth Macklin, argue that the Code incorporated fundamental moral principles known to the Western world for centuries, with its principles so universal as to refute the very idea of moral relativism. Whatever their differences, this group of commentators has no difficulty justifying the court's punishment of the doctors for having violated well-established ethical precepts.

But not everyone is so confident that a formal code of ethics in human experimentation existed in Germany or anywhere else. Absent such a code, Nuremberg becomes the more important even as some doubt is cast on the fairness of its sanctions. Indeed, the Nuremberg tribunal never did make clear whether its verdict was reached under the provisions of the Code or under the broader stipulations of the Nuremberg Principles outlawing crimes against humanity. As Grodin observes, "If the judges had held the Nazi physicians to the standards enumerated in the Code . . . it would have been necessary to condemn many other physicians and scientists throughout the world for violations of the ethical limits of human experimentation." This ambiguity may also explain why Andrew Ivy, testifying for the prosecution, cited the American Medical Association's code of human experimentation as a precedent for condemning the Nazi actions, when in fact the AMA stipulations were published 19 days *after* the prosecution's opening arguments at the trial.

There is even less consensus about the impact of the Code. Although Sharon Perley and her co-authors insist that the Code "succeeded in bringing the issue of human experimentation to the forefront of public debate," there is remarkably little evidence to sustain their assertion. In this country, human experimentation did not become a subject of sustained analysis until after the pioneering work of Henry Beecher in the mid-1960s, abetted by the repercussions of the thalidomide scandal. Annas's own chapter opens with the observation that the Code has had almost no direct effect on American court decisions in civil or criminal cases. The paucity of citations to Nuremberg reflects the fact that the Code stands in a kind of legal limbo, never formally enacted into American law. Perhaps more important, American physicians, and presumably lawyers as well, assumed that the Code was aimed at Nazi henchmen, not bona fide doctors, and therefore they had nothing to learn from it.

However reasonable that last view, it is mistaken on at least two counts. First, as the powerful essays by Robert Proctor and Christian Pross unequivocally demonstrate, leading and well-respected German doctors participated enthusiastically in the research conducted under the Nazi regime, and many of them continued to occupy high positions in postwar Germany. Among physicians, Proctor tells us, "there were as

many volunteers as victims; no one had to *force* physicians to support the regime," or to conduct the experiments. Second, the Code's insistence on the essential character of the voluntary consent of the subject was altogether relevant to American investigators. Although the book sloughs over the point, the research conducted in this country both during World War II and over the period 1945–1965 frequently ignored voluntary consent. As Beecher noted in his 1966 exposé of the ethics of human experimentation, the cancer experiments of Chester Southam, the hepatitis experiments of Saul Krugman, and the cardiac catheterization experiments of Eugene Braunwald, among others, clearly violated the dictum.

Annas and Grodin close the book with a brief plea for an international Covenant on Human Experimentation, based on Nuremberg but going well beyond it, to deal with all of human experimentation, therapeutic and nontherapeutic. Their aim is not so much to produce another code as to establish an international tribunal that would enforce a code. They say almost nothing, however, about how this agenda is to be accomplished or its likely effects. So we leave the book, as we entered it, intrigued but unsettled, still wondering about the impact of the Nuremberg Code even as we think about future possibilities.

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Consciousness Redux

Consciousness Explained. DANIEL C. DENNETT. Illustrated by Paul Weiner. Little, Brown, Boston, 1991. xiv, 511 pp. $27.95.

Consciousness is, for each of us, so vital that all sorts of thinkers have been eager to pontificate on its significance. Despite this diverse inquiry, no consensus about the nature of consciousness has emerged. Given that the debate now spans more than two millennia, a book with the authoritative title *Consciousness Explained* by a well-known writer on brain and mind is noteworthy.

Dennett begins by reviewing the perennially attractive idea of the Cartesian Theater, the notion that consciousness can be understood as presentation on an internal stage to an audience that sits at the pinnacle of neural function (for Descartes, the pineal gland). The basic flaw in this generally discredited view is the logical impasse that arises in identifying the audience, a task that raises the specter of infinite regress or, worse yet, dualism. As Dennett points out, "Neither the show nor the audience is to be found in the brain, and the brain is the only real place there is to look for them."

Dennett wants to replace this outmoded concept with what he calls the "multiple drafts model" of consciousness. In part on the basis of modern evidence for the massive parallel processing of information within the brain, he argues that consciousness is not a unitary phenomenon but rather a continually changing, updated and edited version of the world that derives from many neurological sources. Dennett summarizes his view as follows:

> There is no single, definitive "stream of consciousness" because there is no central Headquarters, no Cartesian Theater where "it all comes together" for the perusal of a Central Meaner. Instead of such a single stream . . . there are multiple channels in which specialist circuits try, in parallel pandemoniums, to do their various things, creating Multiple Drafts as they go. Most of these fragmentary drafts of "narrative" play short-lived roles in the modulation of current activity but some get promoted to further functional roles, in swift succession, by the activity of a virtual machine in the brain. The seriality of this machine . . . is not a "hard-wired" design feature, but rather the upshot of a succession of coalitions of these specialists.

For many readers, a major problem with this perspective is likely to be a sense that, in formulating his model, Dennett has conflated consciousness and its content (particularly its linguistic content). For Dennett, consciousness is defined by anything (and everything) that can brought into the domain of awareness; it is a "narrative" generated by a multitude of parallel "pandemoniums," biased and shaped by previous experience, culture, and the unconscious (among other influences), and reported primarily by language. Though all this seems a reasonable interpretation of the content of consciousness, it sidesteps the issue of what consciousness *is*. First and foremost, consciousness is a luminous and immediate sense of the *present*, about which we are quite certain. Indeed, as Descartes emphasized, this awareness is about the only thing in mental life about which we are entirely confident. What comes into our awareness of the present may be, and often is, the result of delusion, selective forgetting, self-serving editing, or frank pathology. But however interesting the repertoire of conscious thought may be, focusing on the content of awareness does little to explain the phenomenon itself. With consciousness defined in this way, our immediate sense of the present and what amounts to memory (the source of the revisions of reality that plague even the most sensible among us) are fused in an awkward amalgam that precludes a clear consideration of either. Despite repeated declamation of his wish to "demystify" the notion of consciousness, one is left with the impression that, for Dennett, it is a concept that can be approached only by indirection and metaphor.

A second and related problem is Dennett's failure to address the biology (as opposed to the phenomenology) of consciousness. He pays scant attention to the fact that consciousness is normally turned on and off (when we wake up and fall asleep), that it can be abridged by drugs or trauma, and that it depends critically upon special subsets of neurons in the reticular formation of the brainstem (and elsewhere) whose job it is to control the ability of the brain to be conscious. There is, in this book, no consideration of sleep, attention, anesthesia, or the classic studies that demonstrate how the brain modulates consciousness. These are issues that most thinkers—whether biologically inclined or otherwise—would probably deem relevant to a modern "explanation" of our ability to be so acutely aware of the present. This reservation is not simply a biologist's complaint that the book contains too much philosophy and not enough neurology. The gripe is that Dennett, more often than not, is philosophizing about the wrong thing.

A third problem is the strategy of his presentation. Dennett, a highly skilled writer broadly knowledgeable about a wealth of psychophysical, neurobiological, and historical material relevant to his task, is also long-winded. He takes fully 250 pages to reach something that might be considered a direct statement of his theory. The argument is sometimes usefully Socratic, but it is often oblique and cluttered. Anecdotes, philosophical asides, literary interludes, and fashionable allusions intrude at every turn and eventually become the substance of the book, rather than its adornment. From Joyce to Julesz; from Kant to Kissinger; from Husserl to Huxley; the Turing test, AI, Kolers's colorphi phenomenon, the Baldwin effect, blindsight, zombies, Dawkins's memes, Searle's Chinese room—it is all here in fascinating but sometimes mind-boggling and seemingly pointless detail that eventually overwhelms Dennett's logic. In the end, one wonders if he simply doesn't see his own argument clearly enough to make it direct and forceful.

Despite Dennett's ultimate failure to provide a radically new explanation of con-