

Review Essay: An Honest and Insightful Look at the Medical Profession

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Complications: A Surgeon's Notes on an Imperfect Science, by Atul Gawande. Picador, 2002.

(Page references are to this paperback edition.)

Pressed for time, many of us often feel that we must choose between scholarly articles that educate us as professionals and anecdote-filled, sparkingly written pieces that offer pleasurable reading for the "educated lay person." What is so impressive about Atul Gawande's essays is that they do both. It's not surprising that they have appeared both in *The New England Journal of Medicine* and in *The New Yorker*. Some are also available on his website, . I have used them both at an educational session of our Pediatric Ethics Committee and for teaching undergraduates in a basic "Medical Ethics" course. *Complications* is the first published collection of Gawande's essays.

Gawande's writing is a model of lucidity and could be recommended for that reason alone. As many of us have discovered in teaching bioethics, philosophical questions are conveyed most clearly and vividly through case studies. Every one of Gawande's essays deals with specific cases or personal stories, and although the book is not labeled as "bioethics," almost every case and story is used to raise larger ethical questions.

The essays in *Complications* revolve around several themes. One is the nature of the medical profession itself. There is much here that is autobiographical; for example, Gawande's learning, with some initial difficulty, how to place a central line. That people get better with practice is not surprising, but Gawande spells out some of the resulting ethical issues. We value informed consent, and what could be more important to a patient than knowing the success and failure rate of a particular procedure? A practitioner or a consent form might indicate that on average serious mishaps are rare; say, less than 1%. But does a resident need to add, "I am still learning how to do this, and the rate of complications from this procedure is much higher than the average when it is performed by a beginner?"

Even for senior practitioners, progress requires learning new techniques, and studies show that "no matter how accomplished, surgeons trying something new got worse before they got better." (p. 30). Gawande gives the example of an improved technique for treating a severe heart defect in children, the transposition of great arteries. A procedure developed in the 1980's improved the average life expectancy of patients

from 47 to 63. But this medical progress came at a terrible price: in the first 70 operations, 25% of the children died compared to only 6% with the older procedure. Some families took risks that aided future patients, but they did not necessarily make an informed choice to take those risks.

Gawande was trained both at Harvard Medical School and at Harvard School of Public Health, and he is keenly aware of the tension between clinical practice directed at helping individual patients and the research and training that enhance public health. As members of society, we want to see medical progress and medical education that will improve the care of future patients, but are we also willing to contribute to that progress and education by having ourselves or our loved ones be "early adopters," the first patients on whom a new technique is practiced? Were the treatment experimental, we would need to be so informed, but it is not routine to inform patients of each practitioner's history or to give patients a choice among those able to insert a central line. Gawande points out, though, that those "connected and knowledgeable" often have choices that others do not, and so when his own son needed to be treated for a heart condition, Gawande switched his son's care from a fellow to the hospital's associate cardiologist-in-chief. He says that it was an easy choice: "this was my child." (p. 32) But he concludes that since everyone is not given this kind of choice, maybe it should not be allowed at all.

Another interesting theme is the nature of medical decision-making. In "The Computer and the Hernia Factory," Gawande confronts deflating studies from cognitive psychology which show that in many areas a "a blind algorithmic approach usually trumps human judgment in making predictions and diagnoses." (p. 43). So much for the wisdom of intuition, the ripening of perception from long years of practice. But to what extent do these studies apply specifically to medicine? In a later essay, "The Case of the Red Leg," a thriller whose outcome I will not reveal, Gawande needs to decide whether to go with the overwhelming odds that a young woman has a simple case of cellulitis or whether to yield to his fear, possibly the result of a recent experience that could be distorting his judgment, that she actually is the victim of a rare case of necrotizing fasciitis, a flesh-eating bacteria that is resistant to all antibiotics and fatal in 70% of cases. If his fears are well grounded, he would need to do a biopsy and possibly an amputation. Can decisions like these best be made by algorithms free of the errors of human judgment? Or is there something to the idea that medical intuition offers insight into cases that defy all the usual expectations?

Much is at stake here, starting of course with the lives and the well being of individual patients. There are public policy implications as well, for both diagnosis and treatment. If insurance companies use algorithms and outcomes research and require physicians to adhere to their strict guidelines, what will be the result? One possibility is that patients would no longer be victims of hidebound or arrogant physicians who would otherwise insist on doing things the way they have always done them. But another possibility is that seasoned medical intuition is a crucial component of good medical decision-making which cannot be reduced to computer-programmable formulas. If so, public health would suffer from the loss of this imperfect yet precious all-too-human resource.

Bioethicists have increasingly recognized that the concept of "disease" is more problematic than often thought. Is it the role of medical practitioners only to cure "disease" or to use their knowledge to satisfy whatever desires patients bring to them? Are short stature or shyness "diseases" or do they become so if we have genetic or pharmacological "cures" for them? In "Crimson Tide" Gawande describes the case of a television anchorwoman whose career is hampered by blushing and needs to choose whether to undergo surgery to sever some fibers of the sympathetic nervous system. A rare (1%) side effect is damage to the nerves feeding the eye; a more common side effect is a significant change in patterns of sweating. Should medicine use its resources for this kind of problem? I can imagine conservative bioethicist Leon Kass asking: if blushing is a response to shame, should someone who wants to engage in shameless activities be able to use medical resources to help mask a "natural" human response?

Although Gawande does not explicitly discuss what philosophers call "virtue ethics," much of his writing is richly suggestive about the virtues and vices of physicians. He writes like an anthropologist about the behavior of surgeons at a huge conference in Chicago. He notes that some of the glitz and carnival atmosphere mirror that of a Public Relations World Congress that is taking place at the same time. But he also highlights both the genuine learning and the tribal bonding which, I think, point to his own pride in the nobility of his profession:

Ours is a world even our families do not grasp. Once residency is over and you've settled in Sleepy Eye or the northern peninsula of Michigan, or, for that matter, Manhattan, the slew of patients and isolation of practice take you away from anyone who really knows what it is like to cut a stomach cancer from a patient or lose her to a pneumonia afterward or answer the family's accusing questions or fight with insurers to get paid. Once a year, however, there is a place full of people who do know. (pp. 86-87)

To my mind one of the best characterizations of moral virtue comes from Gawande's description of the "Morbidity and Mortality Conference" in the essay, "When Doctors Make Mistakes." The "M&M" is a time for mistakes to be openly confronted and discussed by every surgeon regardless of rank, free of legal liability, and with the underlying assumption that human mistakes are both inevitable and unacceptable. If these weekly meetings truly work as Gawande describes them, they suggest how institutions can operate to promote the virtues of humility, openness, and the best kind of ambition, the drive to improve. (I cannot help but wonder if our country would have benefitted from a similar practice by Donald Rumsfeld's Defense Department in the early months of the Iraq War.)

Perhaps the most explicit treatment of bioethics is Gawande's discussion of patient autonomy and its limits in the essay, "Whose Body Is It, Anyway?" We've all seen the swing of the pendulum from the Bad Old Days of physician paternalism to awarding "patient autonomy" the role of "crowning concept of bioethics." Many of us who have cheered that transformation have also wondered whether it has gone too far. Gawande's essay could also have been entitled "When Patients Make Bad Decisions," and he recounts a few dramatic examples and argues that "a good physician cannot simply stand aside when patients make bad or self-defeating decisions that go against their deepest goals." (p. 216) Gawande is not calling for a return to paternalism

but for a more nuanced practice of respecting autonomy, and he includes some practical and even manipulative suggestions. "Before a thoughtful, concerned, and, yes, sometimes crafty doctor, few patients will not eventually 'choose' what the doctor recommends." (p. 219).

But there is nothing crafty or manipulative in Atul Gawande's overall approach to the practice of medicine. Gawande's wonderfully written essays convey the immediacy and excitement of the operating room, but they also reflect honestly on avoidable medical mistakes and medical malpractice. Judging by the character traits revealed in these essays, I cannot think of anyone who better embodies the intellectual and moral virtues of the medical profession than Atul Gawande.

Note: Atul Gawande's most recent (2007) collection of essays is *Better: A Surgeon's Notes on Performance*. I judge it to be excellent as well, but I would recommend *Complications* as the slightly stronger of the two collections.