

Thank Goodness!

Daniel C. Dennet

What happens after a noted atheist philosopher undergoes harrowing emergency heart surgery? Does he have an epiphany? And whom does he thank? Some reflections on life, prayer (other peoples'), and medicine.

There are no atheists in foxholes according to an old but dubious saying, and there is at least a little anecdotal evidence in favor of this saying in the notorious cases of famous atheists who have emerged from near-death experiences to announce to the world that they have changed their minds. The British philosopher Sir A.J. Ayer, who died in 1989, is a fairly recent example. But I have another anecdote to ponder.

Two weeks ago,* I was rushed by ambulance to a hospital where it was determined by CT scan that I had a “dissection of the aorta.” The lining of the main output vessel carrying blood from my heart had been torn, creating a two-channel pipe where there should be only one. Fortunately for me, the fact that I’d had a coronary artery bypass graft seven years ago probably saved my life. The tangle of scar tissue that had grown, like ivy, around my heart in the intervening years had reinforced the aorta, preventing catastrophic leakage from the tear itself. During a nine-hour surgery, my heart was stopped entirely and my body and brain were chilled down to about forty-five degrees to prevent brain damage from lack of oxygen until they could get the heart-lung machine pumping. I am now the proud owner of a new aorta and aortic arch, made of strong Dacron fabric tubing sewn into shape—on the spot—by the surgeon, and attached to my heart by a carbon-fiber valve that makes a reassuring little click every time my heart beats.

As I now enter a gentle period of recuperation, I have much to reflect on, not only about the harrowing experience itself, but even more about the flood of supporting messages I’ve received since word got out about my latest adventure. Friends were anxious to learn if I had had a near-death experience, and if so, what effect

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it had had on my longstanding and public atheism. Had I had an epiphany? Was I going to follow in the footsteps of Ayer (who, recovering his aplomb, insisted a few days later “what I should have said is that my experiences have weakened, not my belief that there is no life after death, but my inflexible attitude towards that belief”), or was my atheism still intact and unchanged?

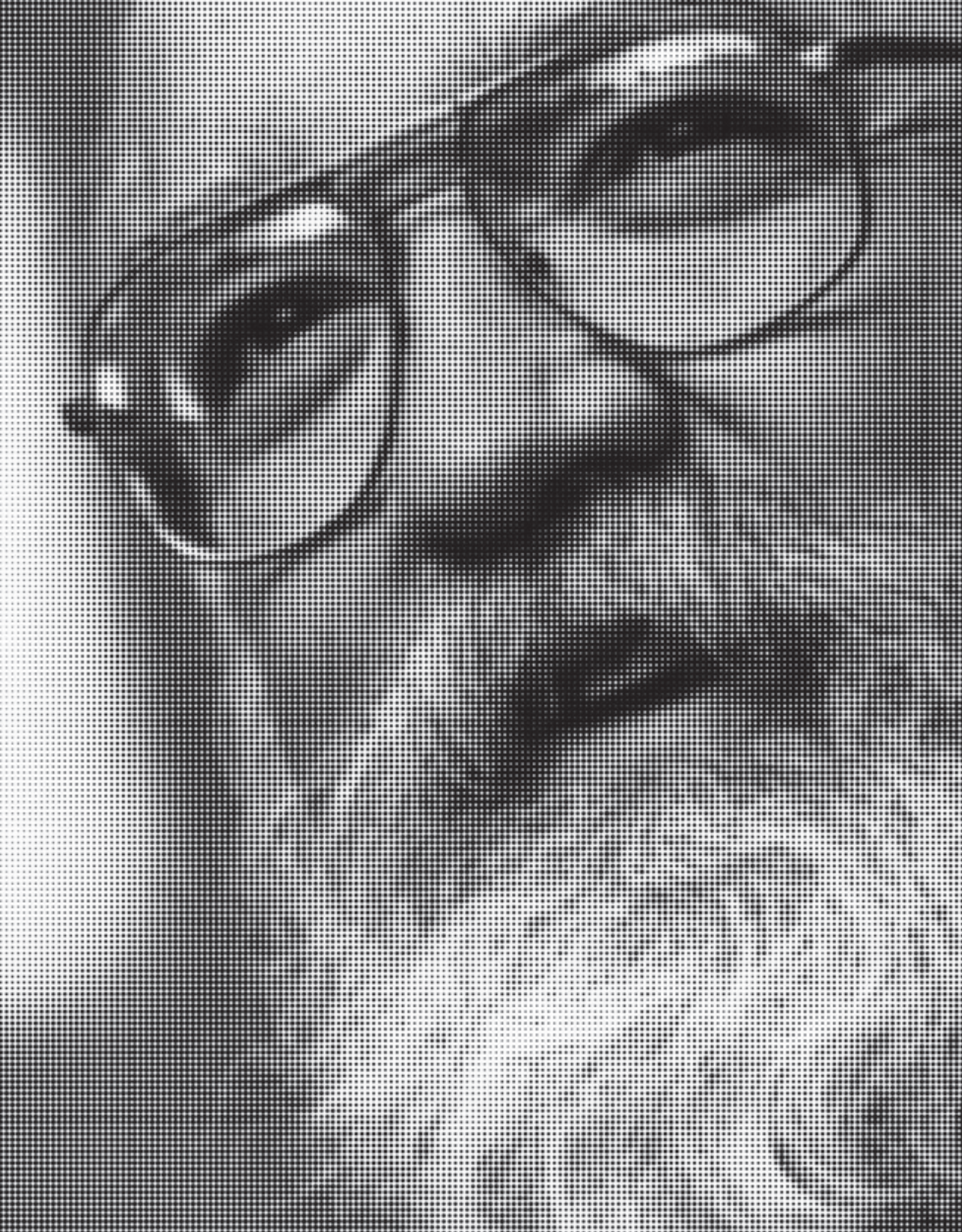
Yes, I did have an epiphany. I saw with greater clarity than ever before that when I say “Thank goodness!” it is not merely a euphemism for “Thank God!” I really do mean thank goodness! There is a lot of goodness in this world, and it is this fantastic human-made fabric of excellence that is genuinely responsible for the fact that I am alive today. It is a worthy recipient of the gratitude I feel today, and I want to celebrate that fact here and now.

To whom, then, do I owe my gratitude? To the cardiologist who has kept me alive and ticking for years, and who swiftly and confidently rejected the original diagnosis of nothing worse than pneumonia. To the surgeons, neurologists, anesthesiologists, and the perfusionist, who kept my systems going for many hours under daunting circumstances. To the dozen or so physician assistants, nurses, physical therapists, x-ray technicians, and a small army of phlebotomists so deft that you hardly know they are drawing your blood. The people who brought the meals, kept my room clean, did the mountains of laundry generated by such a messy case, wheeled me to x-ray, and so forth. These people came from Uganda, Kenya, Liberia, Haiti, the Philippines, Croatia, Russia, China, Korea, India—and the United States, of course—and I have never seen more impressive mutual respect, as they helped each other and checked each other's work. But for all their teamwork, this local gang could not have done their job without the huge background of contributions from others. I remember with gratitude my late friend and Tufts colleague, physicist Allan Cormack, who shared the Nobel Prize for his invention of the CT scanner. Allan—you have posthumously saved yet another life, but who's counting? The world is better for the work you did. Thank goodness. Then there is the whole system of medicine, both the science and the technology, without which the best-intentioned efforts of individuals would be roughly useless. So I am also grateful to the editorial boards and referees, past and present, of *Science*, *Nature*, *Journal of the American Medical Association*, *Lancet*, and all the other institutions of science and medicine that keep churning out improvements, detecting and correcting flaws.

Do I worship modern medicine? Is science my religion? Not at all; there is no aspect of modern medicine or science that I would exempt from the most rigorous scrutiny, and I can readily identify a host of serious problems that still need to be fixed. That's easy to do, of course, because the world of medicine and science is already engaged in the most obsessive, intensive, and humble self-assessments yet known to human institutions, and they regularly make the results of their self-examinations public. Moreover, this open-ended rational criticism, imperfect as it is, is the secret to the astounding success of these human enterprises. There are measurable improvements every day. If I had blasted my aorta a decade ago, there would have been no prayer of saving me. It's hardly routine today, but the odds of my survival were actually not so bad (only 33 percent of aortic dissection patients die in the first twenty-four hours after onset without treatment, but the odds worsen by the hour thereafter).

One thing particularly strikes me when I compare the medical world with the religious institutions I have been studying so intensively in recent years. One of the gentler, more supportive themes to be found in every religion is the idea that if you have good intentions, and are trying to do what (God says) is right, that is all anyone can ask. Not so in medicine! If you are wrong—especially if you should have known better—your good intentions count for almost nothing. And whereas taking a leap of faith by acting without further scrutiny of one's options is often celebrated by religions, it is considered a grave sin in medicine. A doctor who let his faith in his personal revelations lead him to engage in untested trials with human patients would be severely reprimanded, if not driven out of medicine altogether. There are exceptions, of course. A few swashbuckling, risk-taking pioneers are tolerated and, if they prove to be right, eventually honored, but they can exist only as rare exceptions to the ideal of the methodical investigator who scrupulously rules out alternative theories before putting his own into practice. Good intentions and inspiration are simply not enough.

In other words, whereas religions may serve a benign purpose by letting many people feel comfortable with the level of morality they themselves can attain, no religion holds its members to the high standards of moral responsibility that the secular world of science and medicine does! And I'm not just talking about the standards 'at the top'—among the surgeons and doctors who make life or death decisions every day. I'm talking about the standards of conscientiousness endorsed by the lab technicians and meal preparers, too. This tradition puts its faith in the unlimited application of reason and empirical inquiry, checking and re-checking, and getting in the habit of asking, “What if I'm wrong?” Appeals to faith or membership are never tolerated. Imagine the reception a scientist would get if he tried to suggest that others couldn't replicate his



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results because they just didn't share the faith of the people in his lab! And, to return to my main point, it is the goodness of this tradition of reason and open inquiry that I thank for my being alive today.

What, though, do I say to those of my religious friends (and yes, I have quite a few) who have had the courage and honesty to tell me that they have been praying for me? I have gladly forgiven them. There are few circumstances more frustrating than not being able to help a loved one in a direct way. I confess to regretting that I could not pray—at least not sincerely—for my friends and family in time of need. I appreciate the urge, however clearly I recognize its futility. I translate my religious friends' remarks readily enough into one version or another of what my fellow brights have been telling me: "I've been thinking about you, and wishing with all my heart"—another ineffective but irresistible self-indulgence—"that you come through this OK." The fact that these dear friends have been thinking of me in this way, and have taken an effort to let me know, is itself, without any need for a supernatural supplement, a wonderful tonic. These messages from my family and from friends around the world have been—literally in my case—heart-warming, and I am grateful for the boost in that they have produced in me. But I am not joking when I say that I have had to forgive my friends who said that they were praying for me. I have resisted the temptation to respond "Thanks, I appreciate it, but did you also sacrifice a goat?" I feel about this the same way I would feel if one of them said "I just paid a voodoo doctor to cast a spell for your health." What a gullible waste of money that could have been spent on more important projects! Don't expect me to be grateful, or even indifferent. I do appreciate the affection and generosity of spirit that motivated you, but wish you had found a more reasonable way of expressing it.

But isn't this awfully harsh? Surely it does the world no harm if those who can honestly do so pray for me! No, I'm not at all sure about that. For one thing, if they really wanted to do something useful, they could devote their prayer time and energy to some pressing project that they can do something about. For another, we now have quite solid grounds (e.g., the recently released Benson study at Harvard; see SI July/August 2006) for believing that intercessory prayer simply doesn't work. Anybody whose practice shrugs off that research is subtly undermining respect for the very goodness I am thanking. If you insist on keeping the myth of the effectiveness of prayer alive, you owe the rest of us a justification in the face of the evidence. Pending such a justification, I will excuse you for indulging in your tradition; I know how comforting tradition can be. But I want you to recognize that what you are doing is morally problematic at best. If you would even consider filing a malpractice suit against a doctor who made a mistake in treating you, or suing a pharmaceutical company that didn't conduct all the proper control tests before selling you a drug that harmed you, you must acknowledge your tacit appreciation of the high standards of rational inquiry to which the medical world holds itself, and yet you continue to indulge in a practice for which there is no known rational justification at all, and take yourself to be actually making a contribution. (Try to imagine your outrage if a pharmaceutical company responded to your suit by blithely replying, "But we prayed good and hard for the success of the drug! What more do you want?")

The best thing about saying "thank goodness" in place of "thank God" is that there really are lots of ways of repaying your debt to goodness—by setting out to create more of it for the benefit of those to come. Goodness comes in many forms, not just medicine and science. Thank goodness for the music of, say, Randy Newman, which could not exist without all those wonderful pianos and recording studios. Thank goodness for fresh drinking water in the tap, and food on our table. Thank goodness for fair elections and truthful journalism. If you want to express your gratitude to goodness, you can plant a tree, feed an orphan, buy books for schoolgirls in the Islamic world, or contribute in thousands of other ways to the manifest improvement of life on this planet.

Or you can thank God—but the very idea of repaying God is ludicrous. What could an omniscient, omnipotent being (the Man Who Has Everything?) do with any paltry repayments from you? (And besides, according to the Christian tradition God has already redeemed the debt for all time, by sacrificing his own son. Try to repay that loan!) Yes, I know, those themes are not to be understood literally; they are symbolic. I grant it, but then the idea that by praying to God you are actually doing some good has got to be understood to be just symbolic, too. I prefer real good to symbolic good. Still, I excuse those who pray for me. I see them as like tenacious scientists who resist the evidence for theories they don't like long after a graceful concession would have been appropriate. I applaud you for your loyalty to your own position—but remember: loyalty to tradition is not enough. You've got to keep asking yourself: What if I'm wrong? In the long run, I think religious people can be asked to live up to the same moral standards as secular people in science and medicine.