CARD-CARRYING PRECADAVERS

Aaron Kheriaty reminds us that
we are creatures of flesh and blood.

It has been almost twenty years since I dissected a dead human body. It still seems strange: My first encounter with a human body to learn the art of healing was an encounter with a corpse. What is more, I took this body to pieces. In any other context, this act would have been a felony.

Respect for our mortal remains has been a permanent feature of human behavior from the dawn of history. The particular methods of honoring the dead differ across various societies, but all times and cultures share an innate sense that some ritual act of regard is necessary. The human body can be desecrated in death, just as it can be in life.

Aaron Kheriaty is associate professor of psychiatry and director of the Medical Ethics Program at the University of California Irvine School of Medicine.

The central moral conflict in Sophocles's *Antigone* revolves around the protagonist's duty to bury the body of her dead brother, even if this means disobedience to the king's prohibition against burying the rebels of Thebes's civil war. Homer's *Iliad* describes how the victorious Achilles drags Hector's dead body around the tomb of his friend Patroclus. Amid all the carnage of war recounted in the poem, this is perhaps the most brutal moment. More than death itself, Homer's heroes feared having their carcasses left on the battlefield as food for the dogs. In the wrenching final scene, Hector's royal father, Priam, grasps the hand of the man who killed his son, and desperately begs Achilles to return Hector's body for proper burial.

But consider that Achilles did far less physical damage to Hector's body than I did to a woman's body in gross anatomy lab. Each structure was subjected to the knife with painstaking detail. By the end, almost nothing remained intact. If this was not desecration, what is? Gross anatomy lab is typically defended by appeal to a greater good: essential knowledge for future physicians. But justification requires more than utilitarian calculus. The two acts—of indefensible desecration and defensible dissection—must differ in their overall meaning, in the entire attitude and approach to the dead body.

The wisdom of the body, which I began to appreciate only by dissecting it, consisted of a million secrets, none of which were divulged readily. Any gain in anatomic knowledge required probing, coaxing, teasing it out with scalpel and scissors. I learned more in an hour of cadaver dissection than I did in a week of studying anatomy books. Anatomy lab totally absorbed my mental life. At home, after a long day of many hours dissecting, I would try to think about something else, only to find myself staring at my forearm at the dinner table, flexing one finger at a time, watching tendon and muscle move underneath the skin. "Are you studying your arm *again*?" my wife would interrupt, snapping me out of my trance.

The medical students were, without exception, deeply grateful to the people who donated their bodies for this purpose. Georgetown University, where I attended medical school, has a tradition of offering a Catholic Mass every year for the repose of the souls of deceased donors and for their families, who invariably express appreciation, regardless of whether they are religious.

I vividly recall the first day in anatomy lab. With no private locker rooms, many students opted to change for gross anatomy lab next to the lockers in the hallway. I found my way to the small men's bathroom, where a dozen other guys had crammed themselves. After donning the clothes that would be sacrificed to formaldehyde, we made our way back through the hall, past the bras and briefs on either side.

The atmosphere was somber in the cadaver lab. We waited in silence and considered what we were about to do. We uncovered the chest first. The skin had the colorless tone of life drained away: neither gray nor brown, but somewhere in between. Putting scalpel to tissue, we began to cut. The knife drew no blood. Our pace quickened as we went to work dissecting. In the days that followed, the atmosphere relaxed, volume rose, laughter returned.

A few months later, gross anatomy was winding down. We were ready to finish with our radically diminished cadaver and the last section of the course: head and neck anatomy. We uncovered the face, which until then had remained carefully hidden under a plastic bag. The somber atmosphere suddenly returned, and we were reminded of the atmosphere on day one. Had we forgotten what we had been doing? Before we resumed cutting, we looked at the face—at the mouth that had spoken and the eyes that had wept, now dry and drained and stiff. Then we slowly picked up our scalpels and began again.

It is strange, the things you find when you open up dead bodies. One man's liver was rock-hard, cirrhotic, probably from years of alcohol abuse. We discovered tumors, remnants of old surgeries, food still in the stomach, stool still in the colon, a spleen six times the normal size. One of the brains, not having been preserved with sufficient formaldehyde, had begun to liquefy. After removing the top of the skull like a cap, we watched, repulsed, as the brain slid partially out, oozing in a semi-liquid sludge toward the floor. Eating lunch was sometimes difficult after anatomy lab.

The day we dissected the genitals—not an easy endeavor, mind you—we discovered that one cadaver had a prosthesis inside the penis. These devices are among the remedies for erectile dysfunction, and they come in various and sundry models: Some inflate and deflate, while others remain permanently erect (these fold down when not in use, in case you were wondering). Students gathered around a delighted professor of urology as he held up the device, turned it over in the light, and explained the year, make, and model. His eye gleamed as he admired the materials and craftsmanship. Urologists, I thought, must be a unique breed.

Fast-forward three years from the anatomy lab to the operating room: The electric saw was buzzing, bits of bone were flying, and a tendril of smoke wafted up from the point where saw met bone. We were amputating a leg.

It was a surprisingly quick operation, no more than half an hour. Above the knee, the resident made a circumferential cut with a scalpel, tied off the few major leg vessels, and continued cutting until he reached bone. Then it was time to pick up the saw, an instrument that did its work quickly. My job as the medical student was to hold the leg. Suddenly, it was detached in my hands. Holding the leg freely was a strange sensation. I handed the amputated limb to a nurse, who put it in a plastic bag marked "biohazard" and carried it out of the operating room. I wondered what they did with these biohazards.

Surgeons traffic in body parts—they heal with steel. This amputation was, admittedly, a strange way to heal. That it was necessary did not make it feel any less bizarre. The leg was already useless to the patient. The vessels were so clogged that the foot no longer received adequate blood supply and had developed gangrenous ulcers. The patient had not walked on this leg for quite some time. Without an amputation, the gangrene would eventually cause a deadly infection in his blood. The leg was already dead, and death cannot live in symbiosis with life for long; it seeks the company of other body parts—eventually, of the entire body.

I had previously handled other detached body parts, and not just cadaver parts in anatomy lab. There was, for example, the liver. Unlike the amputated leg, the liver was not dead. This living body part had been removed from a dead body and kept artificially alive to be put back into a different living body whose liver was more or less dead. A liver transplant from a dead donor is an astonishing feat. There was also the kidney. This body part had been removed from a living body, and was itself very much alive. It was considered a spare part, since its paired twin organ would remain inside the donor and take over the function of the donated organ. A kidney transplant from a live donor is a stranger and more astonishing feat.

But we grow accustomed to all of this trafficking in body parts; it no longer seems so strange. As Dostoevsky's Raskolnikov put it, "Man gets used to everything, the beast."

The kidney donor surgery had gone well, with one glitch: The surgeon had dropped the detached kidney inside the donor's body. One might think this would not be much of a problem. Just reach inside and pull it out. This operation, however, had no large incisions into which one could reach, as it was done laparoscopically. The patient had only four small incisions, three of them no more than a centimeter long for the surgical instruments and camera, and the other only a few centimeters—just wide enough to squeeze the kidney through for removal. The abdomen was inflated with carbon dioxide gas so that the camera could reveal the anatomy.

Using the two surgical instrument arms, the attending physician, Dr. Katz, placed the detached kidney into a small plastic bag for easier removal and guided it toward the larger incision. Just as she got the body part to its exit point, the kidney slipped out of the instrument's grip, and disappeared from view on-screen. The resident guiding the camera tried in vain to locate it. After detaching an organ from its blood supply, time is crucial: It must be rapidly transferred to an ice bath so that the tissue does not die from lack of oxygen before it is placed into another body and blood flow restored. There was no time to waste. The missing kidney had to be found and quickly removed from the patient's abdominal cavity.

Dr. Katz let out a string of expletives, a habit of speech for which she was well known, and yanked the instruments from the small incisions. The open holes began to exhale carbon dioxide as the patient's abdomen deflated. "Put your fingers here," she commanded, grabbing my hand. I plugged the two open holes with my index fingers, like the little Dutch boy with his fingers in the dike, and the belly stopped spewing hot air. "Scalpel," she ordered. Taking the knife, she extended the larger incision a few more centimeters. Dr. Katz had tiny hands, and was able to slip one hand through this slit. For a few tense seconds, she groped around blindly inside the patient. "Got it," she said, pulling the kidney out.

This was one of those minor surgical complications the patient never hears about: no harm, no foul. Temporarily losing the kidney—just a small bump in the road on which body parts traffic.

Ms. Hahn, a woman in her fifties, had cirrhosis of the liver, caused by a genetic disorder, alpha-1-antitrypsin deficiency—the absence of a protein enzyme crucial for liver and lung function. We were caring for her in the hospital while she awaited a lifesaving replacement liver.

Transplant organs are distributed on an "as needed" basis, rather than "first come, first served." After an extensive medical and psychiatric evaluation, a patient is placed on a regional transplant list to wait for an organ among the other patients from nearby states. The sicker one becomes, the closer to death one gets, the higher one moves up on the priority list. The patient and doctors hope that an organ becomes available before the disease wins out.

Ms. Hahn was now at the top of the list. I'll never forget her face when I told her the good news: "You're getting a liver today." She squeezed my hand and smiled. Almost in disbelief, she asked if she had time to call her brother, who wanted to fly in from California. I nodded, explaining that her new liver would not arrive for a few hours.

A young man had died suddenly in a motorcycle accident. Sudden death is good for donated organs; it keeps them fresh. One of the transplant attendings, Dr. Smith, was en route from a nearby hospital to Georgetown, carrying a special delivery in an ice chest. On his way, he stopped at a fast-food joint to get some food. The guy at the drive-through window would probably never have guessed what the driver was carrying in the cooler in his trunk.

Prior to removing a liver for transplant, the patient must be declared brain-dead—the accepted medical criterion for death. Although a brain-dead patient has no functional electrical activity in the brain, the body continues, with the help of machines, to breathe and to circulate blood. The organs continue functioning, keeping them fresh for transplant: The kidneys make urine, the liver makes bile, the immune system fends off infections. Pregnant mothers can continue to gestate babies. To the untrained eye, the patient may not appear dead. Indeed, a few medical ethicists question the validity of "brain death" as a criterion, and have proposed various alternative criteria—any of which would make organ preservation impossible. Accepting these revised criteria would spell the end of cadaveric organ donation.

Ms. Hahn's transplant surgery lasted twelve hours. First, her hardened, nodular, gray liver was dissected out, separated from its bile duct and blood supply, and removed. Like the amputated leg, this body part was carried away as a piece of biohazardous waste. Before we removed the liver, however, the largest vein in the body—the inferior vena cava (IVC), which carries all the blood from below the chest back to the heart—had to be clamped. The liver wraps over the IVC, which runs behind it: The former cannot be removed without also taking the latter. In order to accomplish this, the blood that normally flowed through the IVC was pumped through a hose that ran outside the patient's body—behind my back—to a bypass machine, then back to her heart. Since this longer hose had a larger volume than the IVC, the blood pressure would drop precipitously the moment we clamped the vein and the blood flow shifted. To counteract this effect, the anesthesiologist stood ready to administer rapid-acting medications to raise the blood pressure at the precise moment when it otherwise would have plummeted. Each action—the clamping, bypassing, and medicating—had to occur in sync to allow continued blood profusion to vital organs.

With the liver out, time was short. Once the new liver was removed from the ice, it would have to be put into the abdomen and attached, and have its blood supply restored quickly. The vessels that had been tied off for organ removal were quickly sewn back onto the new liver's vessels; the new IVC was sewn to the old IVC stump. Then the bypass was shut off, and blood flow resumed. This carefully choreographed sequence proceeded beautifully.

Before putting in the new liver, Dr. Smith called me over to a side table, where he was handling the lifesaving organ. He turned it over in a bucket of ice, pointed out the features of its anatomy, and carefully dissected away any unnecessary surrounding tissue. I placed my fingers in the ice bath and ran them over the organ's smooth surface. Compared to the hard ugliness of Ms. Hahn's defunct liver, this one was gorgeous. Dr. Katz, who was still working on the patient, preparing the empty space inside to receive its gift, called for the liver. Dr. Smith lifted it and carried it to the operating table, carefully lowering it into the patient's open abdomen. Both surgeons went to work sewing the new cloth into the old. I observed, astonished.

"Time for a break," Dr. Katz said after awhile. "Come with me." There were still a few hours to go before the surgery would be complete, but the hardest part was over. Dr. Smith and a surgery resident continued working, while we "scrubbed out," removing our bloody gowns and gloves, and made our way to a nearby conference room where we found leftover Chinese food. It was nearly midnight.

Dr. Katz stood barely five feet tall, yet she was widely regarded as the most intimidating attending at Georgetown. From her sharp tongue, she frequently fired verbal arrows at the residents. I once witnessed her throw instruments in anger during surgery. The interns were terrified of her. Although she was tougher on the residents than the medical students, we secretly feared committing the unforgivable blunder that would bring her wrath down upon our heads. I had been working with Dr. Katz all month, but I rarely conversed with her.

She struck up a conversation: "What specialty are you going into?" I replied that I was considering psychiatry. To my surprise, she said that she almost went into psychiatry. I could not picture it. "Yeah. I loved it. Fascinating stuff. Only thing was, I couldn't stand all the group therapy garbage. Too much fluff, you know." I nodded in assent, not wanting to disagree

with her. "Actually, surgery is a lot like psychiatry," she continued. "We surgeons manipulate people's bodies, and you psychiatrists manipulate people's minds." "I suppose that is one way to look at it," I thought, but simply continued nodding.

Our transplant patient spent almost a week in the intensive care unit before awakening. Under the best circumstances, a liver transplant is so traumatic that the body needs days of rest before the patient regains consciousness. For the remainder of her life, Ms. Hahn would take drugs to suppress her immune system so as not to reject the foreign organ. This made her more susceptible to infections, but this was more than a fair trade for the benefits she had received: She was no longer a patient with a terminal illness. The new organ had cured her.

All recipients require a thorough psychiatric evaluation before they are placed on a transplant list. A liver recipient may have destroyed his original liver by a drug or alcohol habit—hepatitis C from a dirty needle, or alcoholic cirrhosis. The psychiatrist tries to assess whether the patient is likely to remain clean and sober after receiving a new liver. These evaluations can be notoriously difficult. Any prediction is a reasonably informed conjecture, though obviously fallible. The recipient must also be deemed psychologically stable and reliable enough to stay on the difficult regimen of immunosuppressant drugs post-transplant.

Living organ donors are also subject to psychiatric evaluation. Here, the psychiatrist must try to determine whether there is any coercion unduly influencing the donor's decision to give away an organ. There is a flourishing black market for donated organs, and poor people may be tempted to sell one of their kidneys, though these operations occur "off the grid." The legal market, while not coercive, may include more subtle forms of social pressure. Well-meaning family or friends may unwittingly lean on potential donors: "If you really loved your brother, you would do this to save his life," and so forth. People can feel they have no other choice than to undergo the knife for the sake of another who is desperate to live.

As a medical student, I once observed the chair of the psychiatry department evaluate a potential kidney donor. The man was a former cocaine addict, now clean for eight years, who worked a steady job at a local bank. He had children he loved and a marriage that was fairly stable. This man's brother was also a drug addict, living on the street and dying of kidney failure. When this brother became sick enough, he showed up at the hospital for dialysis, but otherwise stayed on the street. The family had offered him their homes and tried to help him get back on his feet, but he refused their assistance.

The man we were evaluating described how one day he was suddenly overwhelmed by this thought: He was supposed to give his brother one of his kidneys. He described this epiphany in religious terms. "I don't care if he ruins the kidney I give him. I want to do it anyway." Nothing we said could deter him. He insisted he would still donate even if his brother continued to use drugs: "This is what I am supposed to do. I am supposed to help my brother, even if he doesn't want help."

While we found his generosity admirable, we were concerned. "For all I know, his idea about donating a kidney may really be the result of a mystical experience," the psychiatrist later told me. "I don't really care either way. What concerns me is that nothing we say, no scenario we offered him, could deter him from this thought. There is something not quite right about it."

We finally made a bit of headway when we suggested that perhaps he was right: "Maybe you *are* supposed to do something heroic to help your brother. But unconditionally offering him your kidney may not be the precise way you are supposed to help him. Perhaps you need to offer it on the condition that he gets off the street and stays clean. This, after all, could be what really helps him." After much discussion, the man gradually came around. What he really wanted for his brother was a better life, and he was willing to go to extraordinary lengths to assist him. But there is a difference between giving away and throwing away.

Can you tell us why you stopped taking your meds?" asked Adam, a psychiatry fellow. We were evaluating an eighteen-year-old man who was "status post–kidney transplant." The surgery had gone well, his new organ had been in good working order for more than a year, and he had enjoyed the freedom that came from being off dialysis, which, prior to the transplant, took up fifteen hours of his week. Then, one day, he stopped taking his immunosuppressant medications. After a few weeks of this, his new kidney completely stopped making urine. Without his meds, his immune system had rapidly destroyed the transplanted foreign organ. By the time we were consulted to evaluate him, the patient was in the hospital, preparing to go back on dialysis. His kidney was beyond salvaging. His negligence had ruined it.

During the initial interview, after gathering sufficient background information, we began to probe for an answer to the question on everyone's mind. Why did he stop taking his meds? Yes, he knew what

would happen if he did. No, he did not want to go back on dialysis. Yes, he was glad to have received the transplanted kidney. No, he did not simply forget about the medications. And so forth. There was no evidence of mental illness, yet he could give no justification for his action, could cite no influences, triggers, or purposes. After two hours, we were no closer to a rational answer. The patient's responses remained bafflingly blunt: "I don't know why." Maybe he did know, but did not want to tell us. Or maybe he was a mystery to himself, his actions as strange and inexplicable to him as they were to us.

Earlier that day, Adam and I had been discussing the French existentialists, including Camus's *The Plague*. "Speaking of Camus, have you ever read *The Stranger*?" I asked Adam. He had. I continued:

> Do you remember when the main character stood before the judge at the end of the book? The judge asked him why he killed that man on the beach. His answer: "The sun was bright. It was hot. I was sweaty and the sweat was dripping in my eyes and the sun was glaring off the water. So I shot him. I think I'll have another cigarette." That was his defense for the senseless act. It's like our patient here. "Why did you stop taking your meds?" "I don't know. I was irritated. It was hot outside. So I stopped." Senseless.

Adam nodded.

Camus presented his protagonist as a postmodern saint who fearlessly faced the truth of the world's absurdity by taking a life. With no discernible reason, our patient likewise chose to destroy a life-preserving, life-enhancing gift; he let the one thing die that could free him from the chains of a dialysis machine. Now his life would once again be tethered to a sluggish, burdensome apparatus for many hours every few days. Should they give him another kidney? Perhaps someday, perhaps not. For now, however, the surgeons could think of only one thing to do for him: Consult the psychiatrist. It was a strange consult, and the patient was the stranger.

On transplant rounds with Dr. Smith, we entered the room of a dying patient, who had, among other medical problems, severe liver disease. The family was there, demanding that Dr. Smith do a liver transplant. He refused. "As I explained before, her heart will not be able to handle the operation. The surgery would very likely kill her." They replied that she would die anyway, without the transplant. They had a point.

He repeated that the operation itself would likely kill her, but the family insisted that he explain her odds of surviving the transplant: "Give us a number." He told them it was less than 10 percent. "Well, that's better than her odds without the operation, which are zero. We're willing to take the chance." Again, they had a point.

What Dr. Smith knew but did not want to say was that the transplant team could not use a precious liver on a patient who would most likely die during the transplant. A liver is a rare resource; the recipient is therefore carefully selected. Only those who can most benefit from this gift are granted it. This patient's family, understandably, cared nothing about this problem of distributing a precious resource. They saw only that their loved one was dying.

The conversation continued round in circles for another ten minutes. Unable to make headway, Dr. Smith left the room in frustration. After shutting the door behind him, he turned to me and said with a sigh, "No one ever said this job was easy."

Nearly fifty years ago, one of the founders of American bioethics, Paul Ramsey, in his seminal work *The Patient as Person*, worried that some routinized and systematized approaches to organ transplantation could one day lead us to become "a nation of card-carrying precadavers." When Ramsey coined this arresting phrase, the Uniform Anatomical Gift Act had recently passed, and every state had adopted this model legislation for organ donation. From our vantage point, half a century later, we no longer appreciate the radical novelty of organ transplant procedures.

But consider: Never before in the history of medicine had we permanently injured perfectly healthy people in order to improve the health of others. Voluntary self-mutilation became, for the first time, permitted by law and practiced by medicine. With the advent of organ transplantation, we adopted new procedures that make a well person sick in order to make a sick person well—and we have not looked back since. We now regard this, quite rightly under some circumstances, as morally justified. Still, we should also regard it as extraordinarily odd.

Fifty years ago, the U.S. adopted an opt-in approach to organ donation. The Netherlands recently joined Belgium and Spain in adopting an opt-out approach, with the default position that everyone is an organ donor upon death unless they specifically request otherwise. Similar legislation to switch to an opt-out approach has recently been introduced in Britain and proposed in the U.S. This is not, I would

suggest, a sign of moral progress. In the last analysis, voluntarily opting in seems more consonant with the integrity of man's bodily life and the logic of organ *donation*. In an opt-in system, organs remain always and only gifts to be freely given, not parts to be habitually taken.

Why is caution called for here? There is a real danger that we will increasingly view the human body as a collection of useful—or in some cases, not so useful—parts. The true self, as seen through our contemporary neo-gnostic sensibilities, is a kind of ghostly presence somehow inhabiting the mechanistic apparatus of the body. In this view, the body becomes an assemblage of raw material whose components can be reconfigured or replaced according to the desires of the autonomous will. In his book *The Anticipatory Corpse*, bioethicist Jeffrey Bishop advances the provocative thesis that modern technological medicine, particularly in our care of the dying, increasingly views the sick human body as though it were already dead.

We need to recall that we always and only encounter our fellow human being in his or her corporeal, material life. A mechanistic or dualistic understanding of the human person undermines our capacity to care for one another precisely as bodily, sentient creatures. The generous gift of parts of our selves in order to help another to live is always the action of persons of flesh and blood.

While our system of organ donation in the U.S. maintains careful protections and restraints, dubious and dark international organ markets continue to spring up and grow like weeds. Although the Chinese government denies it, there is now compelling evidence that prisoners of conscience in China are routinely killed and their organs harvested for profit. In the United States, thousands of desperate patients die every year waiting for organs that never materialize. In order to increase the number of available transplant organs, many today are pushing for an opt-out approach. Others are reviving proposals for the buying and selling of paired organs from live donors, or compensation for the next of kin of deceased organ and tissue donors. While motivated by laudable goals, these proposals are unwise, even if they would save lives. Our system of organ donation should reflect the truth that our body is more than a commodity to be bought and sold. Our body is not merely something we have; it is who we are.

Perhaps an awareness of these truths about the human body, however dimly articulated, undergirded public indignation toward a British transplant surgeon, Simon Bramhall, who recently pleaded guilty to charges of assault. The criminal charges came after it was revealed that Dr. Bramhall burned his initials onto the new livers of several transplant recipients during surgery. While the internal graffiti did not damage the liver or impair its functionality, the shock and blowback that this case triggered was severe and stern. The public understood that, however much this physician may have "worked" on these organs, they were not *his* work of art. As he submitted his resignation, Dr. Bramhall admitted, "It is a bit raw." To say the least.

The specter of a mechanistic dualism—in which the true self is a disembodied ghost in the machine, and the body is raw material for exploitation—continuously knocks at the door of modern biomedicine. In an age of efficient, turnstile medical machinery, where trafficking in body parts threatens to become routinized and industrialized, the organized *giving* of organs should be preferred to the routine *taking* of them. When we consider donating all or part of our bodies, even for the noblest lifesaving purpose, it is imperative to maintain the logic of the gift. Generosity of this kind requires conscious and deliberate permission, with a full awareness of what is given and what is received.

What is more, the moment that trafficking in body parts ceases to seem strange, the moment we get used to this extraordinary exchange and come to see it as ordinary and mundane, something important for our humanity will be lost. FT

Cold Prose

For this last half year I have been troubled by the disease (as I may call it) of translation; the cold prose fits of it . . . are always the most tedious with me . . .
—John Dryden, "On Translation"

Cold prose fits, wrote Dryden. Yes, but where
does it fit? Oasis in the desert:
hot paroxysms, steam of poetry,
mirage evaporating like a puddle
too shallow to drink from. But it glistens
until it morphs to drifts and mounds of snow.

The impudence of morning, calm and pink.
What was all that rumbling in the night?
Where are the crags and barricades? The white?
Heavy ploughs are clearing avenues
for the day's transition to cold prose.

—Rachel Hadas