Theoretical Medicine and Bioethics (2022) 43:29–45
https://doi.org/10.1007/s11017-022-09563-6

To harvest, procure, or receive? Organ transplantation metaphors and the technological imaginary

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Accepted: 21 February 2022 / Published online: 1 April 2022

Abstract

One must technologize bodies to conceive of organ transplantation. Organs must be envisioned as replaceable parts, serving mechanical functions for the workings of the body. In this way, it becomes possible to imagine exchanging someone's organs without changing anything essential about the selfhood of the person. But to envision organs as mechanical parts is phenomenologically uncomfortable; thus, the terminology used to describe the practice of organ retrieval seems to attempt other, less technological ways of viewing the human body. In this paper, I analyze three common metaphors that currently contextualize the process of organ retrieval in English-speaking communities: harvesting the agrarian body, procuring the commodified body, and receiving the gifted body. These powerful images constrain the gaze toward the body in important ways. Every gaze both obscures and reveals. While each of these three metaphors makes sense of some aspects of organ retrieval, each of them is ultimately subject to being overtaken by what Jeffrey Bishop calls the technological imaginary. This imaginary deploys a gaze that obscures important elements of what it means to be human and does violence to parts of the phenomenological experience of transplantation and bodily existence. I argue that no matter how hard one tries to avoid the technological aspect of transplantation practices by embracing nonviolent metaphors—even the metaphor of gifting, which seems the most promising—it will never be possible to fully resist organ transplantation's violence toward our phenomenological sense of embodiment.

Keywords Organ transplantation · Metaphor · Technology · Embodiment

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Introduction

One must technologize bodies to conceive of organ transplantation.[1] Organs must be envisioned as replaceable parts,[2] serving mechanical functions for the workings of the body. In this way, it becomes possible to imagine exchanging a person's organs without changing anything essential about the selfhood of the person. But to envision organs as mechanical parts is phenomenologically uncomfortable; thus, the terminology used to describe the practice of organ retrieval in English-speaking communities seems to attempt other, less technological ways of viewing the human body. Organs are *harvested*, as scarce and precious public goods for use by the greater society; organs are *procured*, as commodities subject to supply and demand which must be properly allocated and distributed;[3] or organs are *received*, as gifts or donations from selfless "donors."[4] The donation metaphor is the least technological of the three, and it serves to reduce the appearance of commodification, technologization, and other unsavory aspects of the harvest and procurement metaphors. But is it successful in resisting the technologization of organ transplantation?

In this paper, I analyze these three common metaphors which currently contextualize the process of organ retrieval: harvesting the agrarian body, procuring the commodified body, and receiving the donated body.[5] These powerful images constrain one's gaze toward the body in important ways. Every gaze both obscures and reveals.[6]

[1] Per Lesley Sharp, the general term "organ transplantation" typically refers to three distinct domains: the relinquishing of organs by dead or dying persons or their families, the surgical removal of organs from the deceased, and the surgical placement of organs into a patient whose own organ(s) are failing [1]. In this paper, I use "organ transplantation" in reference to all three domains and "organ retrieval" or "removal" in reference to the surgical removal of organs from a deceased body. Retrieval and removal are not neutral terms, and they too both enable and constrain the gaze in certain ways. However, I am choosing to use them because they seem to be the least morally charged of the available options, and because using them allows me to focus on what is gained and lost by the three dominant metaphors/terms at hand.

[2] This is not just an implicit metaphor, but also an explicit term used by some ethicists in reference to organ transplantation—for example, in book titles like *Replacement Parts: The ethics of Procuring* or Renee Fox and Judith Swazey's *Spare Parts: Organ Replacement in American Society* [2, 3].

[3] The way organs are allocated is complex. While slightly different for each organ type, allocation decisions are based off of algorithms weighing medical need, likelihood of success, wait time, age, survival probability (taking into account comorbidities), prior successful receipt of different organs, prior failed receipt of the same organ, prior living donation of organs, and geographical distance from "donor" (see [4, 5]). This apparently objective utilitarian calculus is aimed at equitability and seeks "to achieve the best use of donated organs" and "avoid wasting organs" [6]. However, there is evidence that "these apparently scientific criteria have measurable effects on access to organs for specific populations (minority, ethnic, age)" [7].

[4] Donation is now the most common metaphor; in the United States, the "Donate Life" slogan and logo is described as "the national symbol of the cause of donation" [8]. Throughout this paper I will occasionally use the word "donor" to refer to those whose organs are retrieved, but I will put it in quotes to reflect the fact that while this is the most common language, it is still a metaphor.

[5] Fredrik Svenaeus recognized three broad metaphors for transplantable organs: gift, resource, and commodity [9]. These would roughly correspond to the three metaphors of receiving/gifting/donation, harvesting, and procurement, respectively. The emphasis of his work is different than mine, but is indeed compatible.

[6] The concept of the gaze has been used by philosophers and critical theorists since the middle of the twentieth century to refer to the act of seeing and perceiving. Notable developers of this concept include Jean-Paul Sartre, in *Being and Nothingness* (1943), Michel Foucault, in *The Birth of the Clinic* (1963) and

While each of these three metaphors makes sense of some aspects of organ retrieval, each of them is ultimately subject to being overtaken by what Jeffrey Bishop calls the technological imaginary [15, 16]. This imaginary deploys a gaze that obscures important elements of what it means to be human and does violence to parts of the phenomenological experience of transplantation and bodily existence.[7] I argue that no matter how hard one tries to avoid the technological inherent in transplantation practices by embracing nonviolent metaphors—even that of donation, which seems the most promising—it will never be possible to fully resist organ transplantation's violence toward our phenomenological sense of embodiment.

Anthropologist Lesley Sharp argues in her book *Strange Harvest* that transplant ideology relies on a number of intrinsically paradoxical assumptions, many of which have poignant implications for the language used [1].[8] Because these premises supporting transplantation practices are paradoxical, the disparate metaphors describing transplantation are also paradoxical, and there seems to be uncertainty about where to land. As Sharp writes, "these competing messages offer evidence of … *ideological disjunction*, a pervasive characteristic of transplant ideology" [1, p. 14]. I will show that the popular discourse has moved from one metaphor to another, even using disparate metaphors simultaneously, in an attempt to escape the problematic aspects of each, yet all have been subsequently overtaken by the technological imaginary. Because some level of technological thinking is necessary in order to conceive of organ transplantation, no metaphor will ever fully erase its problematic features.

The technological imaginary

First, I will explain what I mean by technological imaginary. Jeffrey Bishop builds on the concept of the social imaginary, originally described by John Thompson and then Charles Taylor, to argue that our current dominant social imaginary is a technological one [15–17] (see [18, 19]). For Taylor, social imaginaries are shared assumptions that operate in the background of a culture, often carried in images, stories,

Discipline and Punish: The Birth of the Prison (1975), and Jacques Derrida, in *The Animal that Therefore I Am* (1997) [10–13]. In *The Birth of the Clinic*, Foucault adapts the concept of the gaze to medicine, referring to the act of looking diagnostically at a patient in light of the unequal power dynamics involved in the doctor–patient relationship [11]. Post-colonial, feminist, and womanist scholars have continued to apply this concept in new ways since then. For one example, see Stacey M. Floyd-Thomas' "Oh Say Can You See?: Womanist Ethics, Sub-rosa Morality, and the Normative Gaze in a Trumped Era" [14].

[7] I will briefly defend my use of the term "violence" with regard to transplantation's effect on the phenomenological experience of embodiment in a later section. While I do not intend to use the term uncritically, I fully recognize that what is gained and lost in using the term violence deserves to be more fully articulated in future projects.

[8] These paradoxical premises are as follows: "(1) the concept of transplantation as a medical miracle; (2) the denial of transplantation as a form of body commodification; (3) the perception of transplantable organs as precious things; (4) the dependence on brain death criteria for generating transplantable parts; (5) the assertion that organs of human origin are becoming increasingly scarce in our society and require radical solutions; (6) an insistence that the melding of disparate bodies is part of a natural progression in a medical realm predicated on technological expertise; and, finally, (7) the imperative that compassion and trust remain central to the care of dying patients, even when a new corporate style of medicine demands an increasing number of transplantable organs" [1, p. 8].

and legends, that allow people to make sense of the world, work together, and solve complex problems [19]. These imaginaries are inchoate, going unnoticed and unarticulated, and behind them lie hidden metaphysical and moral assumptions [19, pp. 24–25]. Imaginaries shape what we see and how we envision what is possible. The technological imaginary, says Bishop, is a way of seeing and knowing that contains background metaphysical commitments to the values of efficiency and effectiveness, which are inherent in technological enframing [17, 20]. [9] Our technological imaginary also shapes the way we understand time, because its "temporal horizon is perpetual innovation, a sense that death can be deferred perpetually. Thus, the logic of *techne* shapes the way time is perceived, the way meaning is made, or is not made … The logic of modern *techne* [also] shapes the moral subjectivity of human actors, elevating the will to choose, the will to … exert god-like power in choosing death" [15, p. 22].

This imaginary makes it possible to conceive of organ transplantation as a way to defer death, a way to use nearly constant technological innovation to exert power and will over the body's tendency toward decay. Without this imaginary, it is unlikely organ transplantation could have been conceived of at all. However, it constrains the gaze in ways that do violence to lived experience. I believe the frantic turning from metaphor to metaphor is evidence that people chafe under the gaze of their technological imaginary and desperately want to find a different way to legitimate transplantation practices. After examining the three dominant transplantation metaphors in more depth, I will argue that none of them can resist technological enframing, not even that of the gift.

Harvesting the agrarian body

Since the early days of organ transplantation, harvesting language has been employed to refer to the process of organ retrieval. It seems to have developed as a colloquial term among the medical community as transplantation science was rapidly developing in the 1960s. Much of the medical literature before 1990 used "harvest" without negative or positive connotations. A 1972 article in a nursing journal simply stated that "harvest" was the correct "transplant language" [21]. But as all metaphors do, the agrarian body has extended beyond mere semantics.[10] Sharp writes:

> Within transplant wards and procurement offices, and during celebratory organ transplant events, one encounters an even richer panoply of symbolic expressions that specifically obscure references to death, human suffering, and body commodification. Donors' bodies, for instance, are frequently transformed metaphorically and visually into an array of greenery, including trees and flowers,

[9] Space does not permit a thorough explanation of enframing here, but for more on the idea, see [20].

[10] I chose to use the term "agrarian body" (instead of other options such as the agricultural, farmed, or cultivated body) because it denotes both something related to the cultivation of land and someone who advocates a redistribution of landed property, especially as part of a social movement. This has obvious resonance with the project of organ transplantation today.

> a set of images that play off the idea that organs are transplanted in or grafted on to new bodies. [1, p. 14]

Sharp notes that while surgeons often see the term "organ harvesting" as an uncontentious way of referring to the act of reaping life to help the dying, other professionals who work more closely with the families of the deceased resist this terminology as a graphic reference to the physical mutilation of the dead body [1, pp. 14–15]. Agrarian imagery is nevertheless ubiquitous in organ transplantation, marked by what Sharp calls the systematic "greening of the body" [1, 21], such that "even the most basic term *transplantation* inspires images of renewal and rebirth, rather than extraction, death, and decay. Thus, just as nature renews itself, so, too, does the human body, albeit through the assistance of sophisticated medical techniques" [1, pp. 14–15].

Although overt agrarian language seems to have grown more controversial in recent times,[11] there has always been ambivalence about employing a harvesting metaphor. In a letter to the editor of *JAMA* in 1968, a physician complained that "the term 'harvesting' calls to mind an image of surgeons gleefully gathering together gruesome basketfuls of hearts, kidneys, and other assorted organs, and congratulating themselves on the size of the 'crop'" [23]. Although there are some true and helpful corollaries between the harvesting of crops and the retrieval of viable organs for transplant, discomfort seems to arise from the gaze this metaphor deploys on the human body. If organ retrieval is akin to an act of harvesting, then the human body is akin to an agrarian plot that produces life-sustaining nourishment. The value of the person who has died may then be seen to lie only in the usefulness of her organs to sustain the lives of others.[12] What does this gaze reveal, and what does it obscure?

First, this gaze reveals something important about human bodies. Like a field tended by its farmer, the agrarian body must be prepared according to the needs of its own nature in order for it to bring forth living resources. This imagery illuminates the truth that human bodies are organic beings that must be nurtured in order to thrive, and organ retrieval requires a careful calling forth of the body's resources in accor-

[11] Some academic journals, such as the *American Journal of Transplantation*, have banned overt use of harvest terminology [22]. Many organ procurement organizations are also now rejecting harvest language in favor of the term "recovery." I do not have space to address this latest turn here, but it is interesting to note, particularly because it is evidence that a metaphor that is satisfactory to all parties has not yet been settled on.

[12] This discomfort is evident in more recent popular literature, where "organ harvesting" seems to be a pejorative term reserved for organ retrieval gone awry, seen in headlines and titles such as the following: "Independent Tribunal Finds that China Harvests Organs from Prisoners," "Bitter Harvest: China's 'Organ Donation' Nightmare," "Organ Harvests from the Legally Incompetent: An Argument Against Compelled Altruism," "Israel Harvests Palestinian Martyrs' Organs," and "Mexican Cartel Henchman Arrested for Killing Children to Harvest Their Organs " [24–28]. It is also common to see both harvest language (used pejoratively) and donation language (indicating "good" transplantation practices) in the same article, which I take as evidence that the donation metaphor is being leaned on to fix the problems inherent in the harvesting metaphor. For an example, see "Death Row Organ Harvesting: China to Implement New Donation Programme" [29]. This article uses both harvest language, mainly in reference to the organs taken without consent from executed prisoners, and donation language, in reference to the new program attempting to address ethical concerns. There is an underlying assumption that "organ harvesting" is associated with unethical practices of taking organs from a vulnerable population, while "organ donation" is associated with an opt-in, consent-based, non-commodified system.

dance with its integrity. Agrarian language may accurately represent organ recipients' experience of renewed life after transplant, or the satisfaction the deceased's family members feel when they see their loved one "live on" through organ transplantation.

But this agrarian metaphor also constrains our gaze. It encourages the belief that the persistence of human persons depends upon the utility of other people's bodies, just as the survival of human communities depends upon crops produced by the land. Or it may be taken to imply that deceased human bodies are ripe for cultivation and use by those with the necessary technical skill. In a tongue-in-cheek 1974 article, co-founder of the Hastings Center Willard Gaylin suggests that since the definition of death was changed in order to allow for an increased supply of transplantable organs from those whose entire brains have died, "the way is now clear for an ever-increasing pool of usable body parts" [30, p. 26]. Scientific experimentation too dangerous to perform on living persons, and not possible to perform on embalmed cadavers, could now be carried out on dead yet heart-beating "neomorts." These neomorts would have the legal status of the dead, but they would be warm, ventilating, pulsating, metabolizing bodies that could be maintained for years with ventilator and nursing support. To gain useful medical knowledge for the rest of society, why not develop banks or "farms" of these cadavers to be "harvested" for such beneficial purposes as medical training, experimentation, blood, tissue, and organ banking, and hormone and antibody manufacturing? Regarding the use of these neomorts for blood supply, Gaylin writes:

> Obviously, a sizable population of neomorts will provide a steady supply of blood, since they can be drained periodically. When we consider the cost-benefit analysis of this system, we would have to evaluate it in the same way as the lumber industry evaluates sawdust—a product which in itself is not commercially feasible but which supplies a profitable dividend as a waste from a more useful harvest. [30, p. 28]

Ultimately, says Gaylin, if individual human bodies are seen as the source of collective harvest, the entire feasibility of maintaining neomorts for research and transplantation purposes comes down to a cost-benefit analysis. As soon as one resource is harvestable for profit, the others are simply complimentary byproducts, and the entire system of maintaining farms of neomorts is justified. Logistical concerns can be overcome with time. "Since we do not at this point encourage sustaining life in the brain-dead, we do not know the limits to which it could be extended. This is the kind of technology, however, in which we have previously been quite successful" [30, p. 28], he writes.[13]

[13] Gaylin is quite clear that he would oppose the creation of neomort farms. He ends the article saying: "And yet, after all the benefits are outlined, with the lifesaving potential clear, the humanitarian purposes obvious, the technology ready, the motives pure, and the material costs justified—how are we to reconcile our emotions? Where in this debit-credit ledger of limbs and livers and kidneys and costs are we to weigh and enter the repugnance generated by the entire philanthropic endeavor? … This is the kind of weighing of values for which the computer offers little help. Is the revulsion to the new technology simply the fear and horror of the ignorant in the face of the new, or is it one of those components of humanness that barely sustain us at the limited level of civility and decency that now exists, and whose removal is one more step

Putting extreme implications aside, it is not absurd to think that if the human body is seen as an agrarian resource, it would make sense to invest in increasingly sophisticated ways of cultivating it. New surgical techniques, new medications and devices for perfusing harvested organs, and new procedures to reduce the time between death and harvest are all logical priorities. This metaphor, then, is quickly overtaken by the technological imaginary. It shapes the gaze in the direction of the technological—efficiency and efficacy—just as farming has become increasingly technologized. If the limiting factor in the yield of human organs is the current ability to properly cultivate and harvest them, then the bodies and the organs themselves may be less important than the techniques and tools which are deployed upon them. As a result of this gaze, it is not the qualities of the organs or bodies that determine transplantability, but the skill of the transplant surgeons. Although the metaphor of the agrarian body may reveal a body with its own being and integrity, this body is vulnerable to being consumed by the technological, obscuring the inviolable worth of every human person, particularly those who have just died, and encouraging attention toward usefulness, productivity, and yield.

Procuring the commodified body

The procurement metaphor seems to have developed slightly later than the harvesting metaphor, when transplantation started to become a systematic and relatively routine medical procedure instead of a rare experimental one—in other words, when it became lucrative. Procurement terminology is even more blatantly used than that of harvesting, appearing in the names of the national Organ Procurement and Transplantation Network (OPTN) and regional Organ Procurement Organizations (OPOs). I contend that the development of this metaphor reflects some aspects of the business-like nature of organ transplantation in the United States, but like harvesting, it is also vulnerable to the technological imaginary.

In 1968 the first scientific organization for transplant professionals in the United States, called the South-Eastern Organ Procurement Foundation, was formed [31].[14] It quickly implemented an increase in technological approaches to transplantation, creating the first computer-based system for organ matching, the United Network for Organ Sharing (UNOS), in 1977 [32]. In 1984, the federal government issued the National Organ Transplant Act, which established the OPTN. Paradoxically, this act called for organ procurement to be facilitated by the OPTN but for the OPTN to be managed and operated by not-for-profit OPOs in the private sector [33]. Already, from the establishment of the OPTN in 1984, the business and procurement metaphor was fraying at the edges.

in erasing the distinction between man and the lesser creatures—beyond that, the distinction between man and matter?" [30, p. 30].

[14] It has since changed its name to the American Foundation for Donation and Transplantation, which I attribute to the inevitable failure of the procurement metaphor and the search for a successful one in donation.

That same year, UNOS was incorporated as an independent nonprofit entity and soon after received the federal contract to operate the OPTN. In 1987, UNOS began collecting national medical data on transplants, dramatically increasing its ability to technologically manage the matching and distribution of organs. By 1992, however, it recognized a need for a public marketing campaign and, in a striking terminology switch, helped found Donate Life America, "to build public support for organ donation" [32]. Also in the 1990s, UNOS launched several internet-based systems for managing transplant data and facilitating "donor–recipient" matching, which thus became increasingly technologically mediated. In 2006, they renamed it "Donor Net" to match the change in terminology preference [23]. And yet, the procurement metaphor has been difficult to shake. Federal regulations, while mostly shifting to donation language, maintain vestiges of procurement language to this day, perhaps owing to the fact that the OPTN and other OPOs retain "procurement" in their names [34].

What does this metaphor reveal, and what does it obscure? Procurement is the language of business, economics, and trade. It conjures up images of people in suits making high-dollar business deals and acquiring assets to expand their companies and profits. Although current regulations in the US prohibit the buying and selling of human organs, "procurement" ironically seems to be the preferred legal term for the retrieval of organs from the deceased. Sharp argues that the reliance on such language is actually a natural result of the way medicine is structured in our country: because technocratic practices are situated within capitalism, and American medicine is inherently technocratic, the medical enterprise, including organ transplantation, is a major player in the capitalist market system [1, p. 10]. Transplantation alone is a multi-billion dollar industry in the US, even though it is conducted by not-for-profit OPOs [1, pp. 10–11]. The health consulting firm Milliman reports that the average amount billed for a heart transplant in the US is currently $1,664,800; a liver transplant comes to $878,400.[15]

The procurement metaphor encourages a commodity-driven gaze toward the human body, revealing some truths and obscuring others. Commodities are objects that can be produced, often at scale, to meet consumer demand. Commodities are often expected to be standardized, the same from one to the other, after the manner of factory production. In taking up this metaphor, one may see that organs do in fact perform functions in the body that are mechanical in nature, making them similar and often transplantable from one body to another. This gaze may reveal the fact that humans are more alike than we are different, that we are made of the same stuff, and that we are united through the similar workings of our bodies. But it also obscures some essential elements of what it means to be human. When our organs are conceptually and literally externalized as not essentially *us*, but replaceable commodities which may be procured, violence is done to the differences between people and to our phenomenological sense of embodiment.

According to Ernst Kapp in his 1877 magnum opus *Elements of a Philosophy of Technology*, we humans have always technologized our organs [36, pp. 27–34]. Human organs were the initial blueprints for tools, machines, and even entire cultural systems: "The crooked finger becomes a hook, the hollow palm a bowl. In the sword,

[15] For the rest of these estimates, an infographic, and more information, see [35].

spear, oar, shovel, rake, plow, pitchfork, one can easily trace the dynamic tendencies of the arm, the hand, and the fingers and their adaptation to activities such as hunting, fishing, planting, and harvesting" [36, p. 38]. By organs, Kapp means not just hearts, lungs, livers, and the like, but the operational parts of human bodies, including hands, arms, teeth, and any other parts that interact with the outside world. Because humans relate to the world through our bodily organs, we come to see the world outside of us as organ-like as well. Our bodies, then, constrain our gaze such that what we see when we look at a stick is not just a stick, but a tool that might function as an extension of our fingers or as a third leg, for instance. This projection is actually what allowed for the emergence of human beings as such.

But the relationship between humans and artifacts is not just one-directional. What we make also makes us. Just as our organs inform our construal of apparatuses, so do our tools condition our view of the body. As Kapp says, "All organic structures, from hard bone to soft and delicate tissue, are destined in one way or another to project themselves outward into human contrivances … in order to be employed retrospectively as scientific apparatuses to increase self-knowledge and knowledge in general" [36, p. 73]. Thus, there is a reflexive relationship between subject and object such that they are actually co-constituted. Although the classical thinking in the West maintains an ontological difference between subjects, which are seen to have tendencies within themselves, and objects, which are expected to have only those tendencies placed upon them, Martin Heidegger strongly challenges this assumption, arguing instead that subjects and objects have agency in both directions, making them ontologically indistinguishable [37]. Bernard Stiegler extends Heidegger's argument in his *Technics and Time*, contending that co-constitution with technology is part of what it means to be human [38, 39]. The evolutionary development of human beings was enabled by technology; technology evolved on the backs of human beings. But unlike Heidegger, Stiegler believes that technology is in the lead. Human culture develops as a stabilizing force in response to destabilizing technological change, but technological change is outpacing culture [40]. The danger is that the *what* of the technological system may so far outpace the human being that it becomes totalizing, overwhelming the *who* of culture.[16]

When organs are imagined as procurable, they are seen in increasingly technological ways; when organs are seen as technologies, the concept of machinelikeness is incorporated into the body, taken up into the idea of embodiment, just as its organs are externalized and envisioned as replaceable parts. To the extent that Heidegger is considered to have successfully collapsed the classic categories of subject and object, such that there is no ontological distinction between them, it is possible to account for the ways that humans are co-constituted with their technologies—a phenomenon that seems to be as old as humanity itself [37, 38]. However, the procurement metaphor is harmful insofar as it employs a totalizing technologizing gaze on the human body, constraining what is seen when one looks at organs and doing violence to the

[16] Stiegler argues, against Heidegger, that our deaths are not the horizon toward which we live, but rather, there is no horizon because we cannot adjust to technics (see [39, 40]). This may be part of the reason we are able to conceive of the transhumanist ideal of living forever, leaving behind our biology and entering into a technological eternity. Is this thinking also at work in the transplantation ideology, which idealizes and heroizes the idea of living on after our deaths?

phenomenological experience of embodiment. The relevant differences between a hammer and a hand are made salient at the moment each of them breaks down [37, sec. 15]. Once the hammer breaks, the builder suddenly stops her activity in order to attend to the crisis of the broken hammer; she comes to regard the hammer *as hammer* in a way that she could not when it was functioning correctly, because it receded into the background of her attention as she worked. But if, while hammering, part of the builder's hand is broken, she will not disinterestedly begin to notice her hand as a hand and look around for another one; she will cry out in intense pain. Her entire being and attention will be consumed by pain. She will not be able to carry on her work. Our bodies may be co-constituted with our technologies, but our experience of embodiment reveals at least phenomenological differences.

The psychological experience of organ recipients reflects the sense that they have received something more like the hand than the hammer. C. Don Keyes writes, "The recipient often interprets the graft as symbolizing the donor because a body part does in fact differ from a machine part. Even though it is no longer the donor's organ, it once was and that makes the organ different from any other kind of object" [41, p. 171]. While the procurement imaginary contains an implicit assumption that the self remains intact as long as the brain is present to effect the integration of interchangeable organs, the experiences of recipients tell another story. Body image is fluid, but it takes time to adjust to changes. Some organ recipients initially experience an "enlarged body image," in which they must make room for their new organs as additions to their ego [41, p. 161]. Some recipients experience euphoria and an increased sense of strength after transplant. Others feel paranoia, dread, and panic at the presence of an interiorized symbol of another, anonymous person. In turn, "many work through the effects of the symbolism of the body's enlargement by externalizing the organ or by regressively identifying with the donor of the organ, or by some combination" [41, p. 164].

Keyes cites a 1971 study of kidney recipients that found some patients, regardless of gender, viewed the organ as a new body or fetus, saying things like, "The kidney has to be nursed like a baby, you feel like a mother to it" [42] (quoted in [41, p. 166]).[17] In another study, a patient, who received a kidney from her sister, said of the kidney, "She's doing pretty good" [43, p. 372] (quoted in [41, p. 166]). For others, the bounds of self-identity expand to include the "donor," and the recipient incorporates the psychological traits of the "donor," either real or imagined. These patients feel as though they have become more masculine or feminine, for instance, or stronger or weaker, depending on the identity of the "donor:"

> Some patients have felt that by receiving the heart of another person they might take on some of the personality characteristics of the donor. One man literally decided that the day of his transplant was his new birthday, which he planned to celebrate from then on. He felt he had been born again and was 20 years old. This was a 42-year-old man who had received the heart of a 20-year-old. [44] (cited in [41, p. 167])

[17] Quote is from a male patient.

The strange relationship between recipients and often-anonymous "donors" leads some recipients to feel guilty, like they have stolen the organ from its deceased owner. They may feel as though they have to repay the "donor" by safeguarding the organ, or they may respond to feelings of guilt by observing the "donor" did not need the organ. Many, under the influence of the technological imaginary which objectifies body parts, initially view their new organ as a foreign object that "feels funny" or "sticks out" [42]. Organ recipients seem caught between meaning-making structures, unable to decide whether their new organ is a different person, part of themselves, or as the technological imaginary would have it, not a person at all but rather an object. People are indeed capable of bracketing their attunement toward complex phenomena in many different ways, which is what enables and constricts the gaze. Despite this uncertainty, "Some symbolic determination of that whole [donor] continues to live with the life of the organ. This makes body parts represent something more than mere objects to prospective donors, to their families, and to society" [41, p. 162].

Out of discomfort with the idea of a hybrid body, however, which is what recipients tend to describe, transplant professionals regularly describe body parts only as inert objects [1, p. 24]. If Heidegger and Stiegler are taken seriously, the technologizing of the body is not necessarily problematic in itself, since there is no ontological distinction between biological and technological, natural and artificial. Rather, it is the technological gaze that is deployed on the body, a gaze demanded by the technological imaginary, that becomes problematic. Technologizing the body in and of itself can have positive effects on the gaze, such as by encouraging people to see themselves as fundamentally similar to the other, but it also radically removes differences so that human bodies are like fungible machines. By insisting on an image of transplant surgery as repair of a complex and fragile machine, transplant professionals aim to depersonalize organs and end up doing violence to the lived experience of organ recipients who describe multivalent meaning structures [1, pp. 23–24].

There is evidence of instinctual discomfort with the construal of bodies as fungible machines and other aspects of the procurement imaginary. As it increases its hold, market forces encourage more forceful scripts by which families are encouraged to relinquish their loved ones' organs, and the dying patient may be even more rapidly transformed into a supplier of highly desirable, reusable parts [1, p. 25]. The American public, however, is deeply concerned by the idea of the commodification of human bodies that seems to be implicit in this metaphor. There is widespread resistance to more severe depictions of procurement, such as those that suggest a process of mining the body for its profitable parts [1, pp. 14–15]. "In response to such deep concerns," writes Sharp, "the transplant industry has generated an elaborate array of powerful euphemistic devices that obscure the commodification of cadaveric donors and their parts" [1, p. 12]. One of these powerful rhetorical moves is the couching of commodification in gift language. Once again, ideological disjunction compels the search for a new metaphor. The economic implications of procurement are resisted through blending with the metaphor of donation, which I will discuss more fully below. For now, it is worth pointing out that there is a conflict between the metaphor of procurement and that of gifting and receiving, which is perhaps most visible in their economics. In talking about procuring organs, even when the "donor" is not

paid, there is an admission that within this gaze the organs are assets, objects, tools, which contain economic value.

Another complication of the technological gaze is that it creates an ever-increasing demand for organs that cannot be met. For example, in an article in the *New England Law Review*, Alison Shea laments the "unspeakable tragedy inherent to the senseless loss of life" due to what she refers to eighteen times as the "organ shortage crisis" [45, p. 215]. This crisis is purportedly caused by a failure to properly regulate organ donation, a failure to "provide a functional means for effectively promoting, acquiring, and distributing organs" [45, p. 215–216]. Notice the choice of words, each verb fitting organs into a procurement metaphor shaped by a technological imaginary. For Shea, not only are organs commercial goods which must be acquired and distributed according to an appropriate business model, but the entire transplant system is also a technological machine which must be promoted—one whose success is characterized by the elimination of organ failure-related deaths. As the number of people who die waiting for organs continues to rise, a situation made possible by the technological development of transplantation, a crisis comes into view which can be solved only through the improved functioning of the transplantation machine [45]. The technology has driven demand so high that there is a perceived scarcity of human organs, and this technological problem is assumed to have a technological solution [9, p. 164].

Receiving the given body

I should acknowledge from the start that giving and receiving refer to different aspects of the transplantation process than do the previous two metaphors discussed.[18] While harvesting and procurement pertain primarily to the surgical process of removing organs from the dead, giving and receiving instead refer to the supposed agential acts of "donor" and recipient. However, donation, giving, and receiving are such ubiquitous terms in organ transplantation that they are thoroughly implicated in the entire process and come to shape the gaze of the ones retrieving the organs, the surgeons and clinicians, as well.

Of course, the donation metaphor is not new; the legislation governing transplantation in most states is based on the Uniform Anatomical Gift Act, which was first promulgated in 1968. From the early days of transplantation, the language of donation and gifting has served to constrain the gaze in certain ways that other language cannot. In particular, there is a strong sense that the donation metaphor acts as a legitimating force for organ transplantation in the United States. Although transplant patients and their insurance companies pay large sums for the transfer of organs, the transaction is "steeped in the language of a gift economy" [1, p. 26], to encourage the relinquishing of organs and a positive view of the entire project. But these functions are antithetical to true gift-giving, creating yet another paradox for organ transplantation.

[18] I should also acknowledge that the terms "giving/gifting," and "donating" have different connotations and are often used differently in different contexts. However, I will use both here, because concept of organ donation has been built using tropes of gift-giving.

Complicating the gift metaphor, the early twentieth-century sociologist Marcel Mauss has argued that there are no "free gifts" at all, but only gift exchanges [46]. From an anthropological perspective, he observes that gifts are always given to create a social bond. They create cycles of obligation, whether for returning gifts or simply showing gratitude, which tie communities together. While there would not seem to be anything wrong with gift exchanges manifesting in organ donation, this is not the kind of gifting the transplant community advocates. Instead, it tends to promote altruistic, free, anonymous gifts of self. Mauss problematizes the very possibility of such gifting [47, 49].[19] At the very least, his argument calls attention to the strangeness of a persuasive marketing campaign based on the idea of a free choice to donate.

The donation metaphor also masks some hard truths about the organ transplant system. For instance, many "donors" never make the conscious choice to donate their organs before death, making the claim that they perform an agential act of altruism nonsensical. Some unthinkingly check the box to become an "organ donor" while getting their driver's license.[20] Some may give reluctantly, out of obligation or coercion. Some may not have chosen to donate for themselves, but have families who consent on their behalf. Forceful scripts by OPOs may reduce the voluntariness of donation on the part of "donors" or their families. Then, of course, there are the billions of dollars created by the organ transplantation industry. By embracing (non-obligatory) donation as the dominant metaphor, what is known to be problematic can be shrouded in technocratic transplantation practices, either intentionally or unintentionally. This shroud is partly why Kimbell Kornu calls organ transplantation "euphemized violence" [49]. The violence to which he refers is the techno-medical intervention necessary for organ retrieval, including an aggressive ramping up of pharmacological treatments just before and after death and radical surgical cutting of the body. But the phenomenological violence of organ transplantation, particularly toward organ recipients, is also euphemized violence. Uncomfortable lived experience and felt perception (as revealed in the organ recipients' quotes above) are problematic for social acceptance of the transplant enterprise; if transplants must be shrouded in donation language in order to be legitimated, the donation metaphor seems to be merely a tool of the technological paradigm. It obscures, rather than resists, violence.

[19] Contemporary philosophy has seen a resurgence of the theme of gift, particularly in the work of Jacques Derrida and Jean-Luc Marion, owing partly to disagreement over whether Mauss was correct [47; 49, p. 6]. It is important to note that Mauss's work, while seminal, is not a comprehensive theory of gift and was intended only as a collection of initial observations with suggestions for further study. Additionally, gift ideology arising from other cultures than the ones studied by Mauss may have different and fruitful directions for scholarship in this area. I use him here because he remains the most complete and widely cited sociological scholar of gift-giving behavior.

[20] In fact, some DMVs are operated by OPOs, presumably so that they can get as many drivers to become organ "donors" as possible. Organ donation promotional materials are often displayed on the walls of these DMVs.

Conclusions

Transplantation practices have radically reshaped our conceptions of the human body. Transplantability has quite literally changed the way we define life and death in the United States. Consider the following story, recounted by Gaylin in 1974:

> In California in May of this year an ingenious lawyer, John Cruikshank, offered as a defense of his client, Andrew D. Lyons, who had shot a man in the head, the argument that the cause of death was not the bullet but the removal of his heart by a transplant surgeon, Dr. Norman Shumway. Cruikshank's argument notwithstanding, the jury found his client guilty of voluntary manslaughter. In the course of that trial, Dr. Shumway said: "The brain in the 1970s and in the light of modern day medical technology is the sine qua non—the criterion for death. I'm saying anyone whose brain is dead is dead. It is the one determinant that would be universally applicable, *because the brain is the one organ that can't be transplanted*." [30, p. 24] (italics added)

As this court case illustrates, when transplantation became a widespread possibility, the definition of death was changed according to a new vision of the body that the technological imaginary enabled or, indeed, demanded. In this new vision, the body plays only a basic role in the life of a person, as a means through which to realize and attain her interests and preferences. In this view, "the body is the most basic thing I need (and own), but it is not really *me*—I am my thoughts, feelings, wants, memories, etc., not my material body. The body could be replaced…. I am my brain. The brain is thus the only organ that cannot be donated; if you offer your brain to be transplanted into another body, you become a receiver, not a donor, of organs" [9, p. 166].

But this view of personhood is not consistent with our phenomenological knowledge of what it means to be human [9, pp. 163–172]. We do not perceive ourselves to be brains who use our bodies as tools, or technologies, to move about the world. We perceive ourselves to be bodies. As explored most deeply by Maurice Merleau-Ponty, Edmund Husserl, and Martin Heidegger, we feel that our bodies and their sense perception are central to our being-in-the-world [20, 50, 51]. In Heidegger's words:

> Everything that we refer to as our lived body (unsere Leiblichkeit), including the most minute muscle fibre and the most imperceptible hormone molecule, belongs essentially to our mode of existence. This body is consequently *not* to be understood as lifeless matter, but is part of that domain that cannot be objectified or seen, a being able to encounter significance, which our entire being-there (Da-sein) consists in. [52, p. 293] (quoted in [9, p. 168])

The transplantation metaphors we choose to employ should allow these basic experiences of embodiment to be acknowledged and honored. As long as the collective inchoate technological imaginary finds its way into transplantation metaphors, the phenomenology of embodiment will be discounted. This is why people continue to search, so far unsuccessfully, for a way of seeing that truly captures the multivalent phenomenon of organ transfer. While some elements of technological thinking may

be necessary to conceive of the practice of organ donation, it is also necessary to acknowledge the violence it enacts on the human person, both literal violence toward the body of the "donor" and phenomenological violence toward the recipient, whose sense of self must subsequently adjust. The only way forward is to recognize and publicly acknowledge the problematic aspects of transplantation and the limitations of the metaphors used to talk about it. Many may still choose to participate, but many more may decline. I believe this honesty and freedom is absolutely necessary if humans are to be allowed to exceed the boundaries of our technological gaze, even as they exceed the boundaries of their own skin.

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