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Can We Handle the Truth? Legal Fictions in the Determination of Death

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ABSTRACT

Advances in life-saving technologies in the past few decades have challenged our traditional understandings of death. People can be maintained on life-support even after permanently losing the ability to breathe spontaneously and remaining unconscious and unable to interact meaningfully with others. In part because this group of people could help fulfill the growing need for organ donation, there has been a great deal of pressure on the way we determine death. The determination of death has been modified from the old way of understanding death as occurring when a person stops breathing, her heart stops beating, and she is cold to the touch. Today, physicians determine death by relying on a diagnosis of total brain failure or by waiting a short while after circulation stops. Evidence has emerged that the conceptual bases for these approaches to determining death are fundamentally flawed and depart substantially from our biological and common-sense understandings of death.

We argue that the current approach to determining death consists of two different types of unacknowledged legal fictions. These legal fictions were developed for practices that are largely ethically legitimate but need to be reconciled with the law. However, the considerable debate over the determination of death in the medical and scientific literature has not informed the public of the fact that our current determinations of death do not adequately establish that a person has died. It seems unlikely that this information can remain hidden for long. Given the instability of the status quo and the difficulty of making the substantial legal changes required by complete transparency, we argue for a second-best policy solution of acknowledging the legal fictions

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involved in determining death. This move in the direction of greater transparency may someday result in allowing us to face squarely these issues and effect the legal changes necessary to permit ethically appropriate vital organ transplantation. Finally, this paper also provides the beginnings of a taxonomy of legal fictions, concluding that a more systematic theoretical treatment of legal fictions is warranted to understand their advantages and disadvantages across a variety of legal domains.

I. INTRODUCTION

We have long understood death as occurring when a person's heart and circulatory system have permanently and irreversibly ceased to function—to die is to become a corpse that is pulseless, breathless, and cold to the touch. During the second half of the 20th century, the development of intensive care medicine and organ transplantation challenged the traditional understanding of what constitutes death.[1] People who traditionally would have been declared dead because they no longer breathed or had a pulse were able to be sustained by mechanical means. Difficult questions also arose about what to do with people on ventilators who had limited, if any, interaction with the world. It was hard to know what status to assign people with profound neurological damage who were dependent on mechanical means of life support, or when it was acceptable to stop life support. These technological developments, coupled with the need to conduct successful organ transplantation from people whose organs were intact and functioning, led to a new way of determining death based on the cessation of the functions of the entire brain.

More recently, our traditional understanding of death has further been modified to allow for better outcomes with organ transplantation. Because determining death based on a diagnosis of total brain failure was not sufficient to meet the need for organs, other patients on life support were seen as appropriate candidates for organ donation provided that their organs could be procured quickly after withdrawing life-sustaining treatment. To this end, hospitals and physicians began using considerably shorter waiting times after circulatory and cardiac function were deemed irreversibly stopped. Some physicians have waited as little as seventy-five seconds after circulation stops to declare death,[2] though there are insufficient data to be certain that death has occurred after such little time.

Despite the apparent widespread acceptance of our standards for determining death, scholars have begun to look upon the situation with a

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[1] *See In re* Welfare of Bowman, 617 P.2d 731, 734 (Wash. 1980) (citing Thomas McCormick, Lecture on Judicial Decisions and Biomedical Ethics at the University of Washington School of Medicine (Apr. 30, 1980) (name misspelled McCormack in original)) ("With the recent advancement of medical science, the traditional common law 'heart and lungs' definition is no longer adequate. Some of the specific factors compelling a more refined definition are: (1) modern medicine's technological ability to sustain life in the absence of spontaneous heartbeat or respiration, (2) the advent of successful organ transplantation capabilities which creates a demand for viable organs from recently deceased donors, (3) the enormous expenditure of resources potentially wasted if persons in fact dead are being treated medically as though they were alive, and (4) the need for a precise time of death so that persons who have died may be treated appropriately.").

[2] Mark M. Boucek et al., *Pediatric Heart Transplantation After Declaration of Cardiocirculatory Death*, 359 NEW ENG. J. MED. 709, 713 (2008).

great deal of unease. Evidence has emerged that, based on the established biological conception of death in medicine, patients diagnosed as "brain dead" are actually alive,[3] and the way in which physicians determine when patient-donors irreversibly lose their circulatory function does not require certainty that circulation is lost for good and cannot be restarted. Although there are good reasons for treating people *as if* they were dead in these circumstances, they are not the reasons currently given. Instead, the determination of death has been modified to fit our current practices, thereby creating legal fictions. Legal fictions paradigmatically are heuristic devices that use untrue propositions and reasoning by analogy in order to determine what law should apply to a given situation. Although most common legal fictions (like the fiction that a corporation is a person) are transparent, the legal fictions involved in the determination of death are unacknowledged. Because they necessarily involve a distortion of the truth, legal fictions have long been controversial, but are commonly used in many legal domains with varying degrees of legitimacy.

The present paper (1) argues that our current approaches to the determination of death are conceptually flawed and lack transparency, (2) suggests a pragmatic policy approach of using transparent legal fictions to clarify the legal status of vital organ donation for the shorter term, and (3) begins to provide a more careful taxonomy and analysis of legal fictions in diverse areas of the law.

In Part II, we examine the standards for determining death, including how they have developed over time and the criticisms of these standards that have emerged. Part III examines the claim that current standards for determining death involve the use of legal fictions and begins by explaining what legal fictions are. We conclude that the standards for determining death employ two types of legal fictions: what we call *status fictions* (for "whole brain death") and *anticipatory fictions* (for donation after circulatory determination of death). Part IV considers different policy solutions to the determination of death and the merits and drawbacks of different types of legal fictions. Ideally, we should be able to accommodate vital organ transplantation without invoking legal fictions about donors being dead when, in fact, they are alive or not known to be dead. Nonetheless, we argue that the best practicable legal policy at the current time should understand "whole brain death" as based on a transparent status legal fiction and donation after circulatory determination of death as based on a transparent anticipatory legal fiction. Recognizing that the law currently, though not transparently, relies on these legal fictions will contribute to increasing the honesty with which difficult decisions about the uncertainty of life and death are made. Part V considers objections to our proposal, including a discussion of the dangers of legal fictions. Given the risks associated with legal fictions, we conclude that the uses of legal fictions in determining death should be carefully circumscribed to prevent future misuse. Finally, we conclude with a

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[3] *See* D. Alan Shewmon, Brain Death: Can It Be Resuscitated?, HASTINGS CENTER REP., Mar.-Apr. 2009, at 18, 22 [hereinafter Shewmon, Resuscitated]; D. Alan Shewmon, The Brain and Somatic Integration: Insights into the Standard Biological Rationale for Equating "Brain Death" with Death, 26 J. MED. & PHIL. 457, 468 (2001) [hereinafter Shewmon, Somatic Integration].

call for greater transparency in the determination of death and a more systematic theoretical treatment of legal fictions.

II. THE DETERMINATION OF DEATH

With few exceptions,[4] the traditional legal consequences of death did not require determining the moment of death with precision.[5] Legal issues affected by death include that a dead person's property is distributed to others, her legal relationships like marriage and business partnerships are terminated, and if an agent caused her death, that agent may be guilty of homicide.[6] In addition, death marks the time when it becomes appropriate to implement plans for burial or cremation. None of these consequences depend on determining death within a matter of minutes or seconds.

However, it was only when death became a prerequisite for vital organ donation that it began to matter exactly when a person died.[7] Waiting for traditional signs of death requires that organs are deprived of blood and oxygen for a period of time, with the risk or likelihood that they will be damaged. For this reason, patients who are kept on artificial support of ventilation and circulation, but who can be declared "brain dead," are much better candidates for successful organ donation than patients who have been declared dead after circulation has irreversibly ceased.[8] Additionally, some of the patients dependent on ventilators might legitimately want to make a decision (or have their families make the decision) to withdraw treatment and thereby end their lives, and may also want to donate their organs after death. This source of organ donors was a promising one both in terms of the potential to save lives and because it allowed people to exercise their autonomy in a meaningful way at the ends of their lives.

Yet, an important limitation on procuring organs for transplantation is the dead donor rule. The dead donor rule is a widely endorsed moral and legal constraint stipulating that transplantation of vital organs can only occur after a donor's death because it cannot be the cause of the donor's death. The dead donor rule is included in the Uniform Anatomical Gift Act, and a number of states have codified it into law.[9] Similarly, homicide laws do not

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[4] *See, e.g.*, JAN BONDENSON, BURIED ALIVE 31-32 (Norton 2002) (explaining that people's fears of being buried alive, or "taphophobia," rose significantly when cholera epidemics in Europe made it important to bury people very soon after the determination of death); UNUM Life Ins. Co. of Am. v. Craig, 26 P.3d 510, 512 (Ariz. 2001) (consulting the Uniform Simultaneous Death Act (USDA), which is "a uniform statute originally drafted to apply in circumstances resulting in multiple related deaths where it is not possible to determine the order in which the deaths occurred," to determine the beneficiary of insurance policies when a husband and wife were found to have died simultaneously in a car crash).

[5] People v. Eulo, 472 N.E.2d 286, 290 n.1 (N.Y. 1984), superseded by statute, N.Y. PUBLIC HEALTH LAW §§ 2964-67 (McKinney 2010), as recognized in In re Westchester Cnty. Med. Ctr., 531 N.E.2d 607, 611-12 n.2 (1988)) ("[W]hile erecting death as a critical milepost in a person's legal life, the law has had little occasion to consider the precise point at which a person ceases to live.").

[6] *Id.* at 290.

[7] *Id.* at 290-91.

[8] THE PRESIDENT'S COUNCIL ON BIOETHICS, CONTROVERSIES IN THE DETERMINATION OF DEATH 8 (2008), http://bioethics.georgetown.edu/pcbe/reports/death/.

[9] UNIF. ANATOMICAL GIFT ACT § 2(3) (amended 2006), 8A U.L.A. 53 (supp. 2010) (defining an anatomical gift as "a donation of all or part of a human body to take effect *after*

have exceptions for physicians to be allowed to cause death in the context of organ donation.

In 1968, a Harvard committee was created to develop a new set of criteria for death in light of the developments in intensive care medicine and organ transplantation.[10] According to these criteria, individuals who had sustained traumatic brain injury that caused them to be in an irreversible coma, and had lost the ability to breathe spontaneously, would be considered dead. The two justifications the committee provided for this new neurological determination of death were (1) to allow for withdrawing life support from people who had sustained irreversible and devastating brain injury, and (2) to address obstacles to organ transplantation.[11] Notably, although the Harvard committee provided diagnostic criteria for irreversible coma, they did not explain why this physiological state constituted death. A task force of physicians, philosophers, and bioethicists subsequently took care to explain that the neurological standard was not created solely for the purpose of facilitating increased organ transplantation.[12] Nevertheless, others have described the Harvard committee's actions as defining death through a moral lens (rather than a biological one)—defining death based on the underlying purpose the definition would serve in allowing organ transplantation to take place.[13]

In 1981, the now-disbanded President's Commission wrote a report, entitled "Defining Death," that explained what the Harvard committee had not—why "brain death" constituted death.[14] The President's Commission formulated a biological conception of death to fit contemporary medicine and provided a set of diagnostic criteria for determining that death has occurred. The Commission defined death as "that moment when the body's physiological system ceases to constitute an integrated whole."[15] They concluded that death can be determined by neurological criteria that establish when all brain function ceases—what has come to be known as the "whole brain" criteria for death based on the loss of integrative unity of the organism as a whole.[16] The rationale for why "whole brain death" constitutes death was that the brain is the central integrator of the organism as a whole, and when the brain ceases to function, so does the organism as a whole. This effort was not without controversy, but widely recognized as one that provided an

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the donor's death for the purpose of transplantation, therapy, research, or education" (emphasis added)); Maxine M. Harrington, *The Thin Flat Line: Redefining Who Is Legally Dead in Organ Donation After Cardiac Death*, 25 Issues L. & Med. 95, 113 (citing Robert M. Arnold & Stuart J. Youngner, The Dead Donor Rule: Should We Stretch It, Bend It, or Abandon It?, in Procuring Organs for Transplant, The Debate Over Non-Heart-Beating Cadaver Protocols 219, 220-21 (Robert M. Arnold et al. eds., 1995)).

[10] Ad Hoc Comm. of the Harvard Med. Sch. to Examine the Definition of Brain Death, *A Definition of Irreversible Coma*, 205 JAMA 337, 337-40 (1968).

[11] *Id.* at 337.

[12] Task Force on Death and Dying, Inst. of Soc'y, Ethics and the Life Scis., *Refinements in Criteria for the Determination of Death: An Appraisal*, 221 JAMA 48, 51 (1972).

[13] Robert M. Veatch, *Abandon the Dead Donor Rule or Change the Definition of Death?*, 14 Kennedy Inst. Ethics J. 261, 267 (2004).

[14] President's Comm'n for the Study of Ethical Problems in Medicine and Medical and Behavioral Research, Defining Death 38 (1981).

[15] *Id.* at 33.

[16] *Id.* at 1.

authoritative stance to shape future policy development. In their report, the President's Commission also developed language for the "Uniform Determination of Death Act," which they intended to be adopted by state legislatures. The Act defines death as either (1) "irreversible cessation of circulatory and respiratory functions," or (2) "irreversible cessation of all functions of the entire brain, including the brain stem . . . ."[17] It further specifies that the "determination of death must be made in accordance with accepted medical standards."[18]

Taken together, the dead donor rule and the two criteria for determining death allow for vital organ transplantation[19] in two situations—when a patient has sustained irreversible neurological damage qualifying as "whole brain death," or when a patient's circulation has stopped irreversibly. By and large, states responded by drafting statutes that track this definition of death.[20]

The determination of death as "whole brain death" helped ensure a greater supply of organs, but use of these "heart-beating" donors did not meet the growing need for transplantation.[21] Annual waiting lists for organ

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[17] UNIF. DETERMINATION OF DEATH ACT § 1, 12A U.L.A. 781 (2008).

[18] *Id.*

[19] Vital organs are organs that are necessary for life, like the heart. Importantly, the law permits organ donation of non-vital organs from living donors, including kidney donation. However, this form of organ donation is unlikely to meet the needs of many of the people who are on waiting lists for vital organs.

[20] *See* Jason L. Goldsmith, *Wanted! Dead and/or Alive: Choosing Among the Not-So-Uniform Statutory Definitions of Death*, 61 U. MIAMI L. REV. 871, 889-90 (2007). There are two notable exceptions of states that have made accommodations to neurological criteria for determining death for people with certain religious convictions—New York and New Jersey. New York's Department of Health issued regulations and guidance on the determination of death in 1987 and indicated the importance of "providing reasonable accommodation of an individual's religious or moral objection to use of the brain death standard to determine death." *See* N.Y. STATE DEP'T OF HEALTH, GUIDELINES FOR DETERMINING BRAIN DEATH 2 (Dec. 2005), http://www.health.state.ny.us/professionals/doctors/guidelines/determination_of_brain_death/docs/determination_of_brain_death.pdf. In 2005, a panel appointed by the Department of Health clarified in guidelines what policies of reasonable accommodation hospitals may adopt. They explained that, "policies may include specific accommodations, such as the continuation of artificial respiration under certain circumstances." *Id.* at 2-3. Interestingly enough, the panel explained that if a family disagrees with whole brain standard of death (or is in psychological denial that an individual is dead), the hospital does not need to accommodate these views; it need only allow for religious or moral views. *Id.* at 3; *see also* Robert S. Olick et al., *Accommodating Religious and Moral Objections to Neurological Death*, 20 J. CLINICAL ETHICS 183, 185-86 (2009) (noting that some members of the Orthodox Jewish faith, communities in Japan, Roman Catholicism, evangelical Protestantism, Islam, and Native American communities have rejected a neurological standard of death on religious or moral grounds).

New Jersey not only allows hospitals to reasonably accommodate individual views about death, but also requires that insurance coverage continue during the period of accommodation—i.e., after a person could be declared dead under the whole brain death standard. *See* N.J. STAT. ANN. § 26:6A-7 (West 2007) ("No health care practitioner or other health care provider, and no health service plan, insurer, or governmental authority, shall deny coverage or exclude from the benefits of service any individual solely because of that individual's personal religious beliefs regarding the application of neurological criteria for declaring death.").

[21] *Cf.* Armand H. Matheny Antommaria et al., *Policies on Donation After Cardiac Death at Children's Hospitals: A Mixed-Methods Analysis of Variation*, 301 JAMA 1902, 1902 (2009) ("The persistent shortage of transplantable organs and requests from families generated renewed interest in DCD in the early 1990s.").

donation have approximately 100,000 people, but there are far fewer organ donors than that each year.[22] In 2007, there were about 60,000 fewer vital organs being donated than were needed.[23] Over the last 15 years, "the need for donated organs has grown 5 times faster than the number of available cadaveric organs."[24]

In the early 1990s, the increasing need for organs and the desire to respect the preferences of the dying led to further modifications to the determination of death, this time based on the irreversible cessation of circulatory and respiratory function (not the brain). Institutions began new practices of controlled donation after circulatory determination of death (DCDD).[25] This involved withdrawing treatment based on a patient's or proxy's consent and then waiting for a predetermined period of time after asystole, the last beat of the heart that is capable of causing a pulse or circulating blood, before procuring organs.[26] The waiting period typically ranges from two to five minutes.[27] Unlike the traditional determination of death, this approach did not rely on the presumption that the person's heart could not be restarted. Instead, the medical team would not attempt to restart the heart, and would remove the organs after withdrawing treatment and waiting a set amount of time, with several ethical and legal safeguards in place. The success of this approach depends on whether the person's circulatory function stops soon after the withdrawal of treatment or disconnection from the ventilator. The liver must be retrieved thirty minutes after withdrawing life-saving treatment, but the kidney can be successfully retrieved an hour after treatment has stopped. In about 20% of cases, the patient's circulation does not stop soon enough to allow for their organs to be transplanted, and the doctors will then continue to provide end-of-life care for the patient but will not transplant the organs.[28]

Most DCDD is conducted under controlled conditions, meaning that withdrawal of life-sustaining treatment has been planned in advance, and the hospital moves the patient near or to an operating room and initiates interventions in order to preserve the organs and conduct the transplantation within a very short period of time. These techniques typically include administering the drug heparin to maintain blood flow to the organ before it

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[22] *See* Robert Steinbrook, *Organ Donation After Cardiac Death*, 357 New Eng. J. Med. 209, 209 (2007).

[23] Mark P. Aulisio et al., *Taking Values Seriously: Ethical Challenges in Organ Donation and Transplantation for Critical Care Professionals*, 35 Critical Care Med. S95, S95 (2007).

[24] Joseph L. Verheijde, Mohamed Y. Rady & Joan McGregor, *Recovery of Transplantable Organs After Cardiac or Circulatory Death: Transforming the Paradigm for the Ethics of Organ Donation*, 2 Phil. Ethics & Human. Med., no. 8, May 2007 at 1, 1, http://www.peh-med.com/content/pdf/1747-5341-2-8.pdf.

[25] Harrington, *supra* note 9, at 107-08 (citing Roger Herdman & John T. Potts, Inst. of Med., Non-Heart-Beating Organ Transplantation: Medical and Ethical Issues in Procurement 1 (1997), *available at* http://www.nap.edu/catalog.php?record_id=6036); *see* James L. Bernat et al., *The Circulatory-Respiratory Determination of Death in Organ Donation*, 38 Critical Care Med. 963, 964 (2010).

[26] The heart's inability to cause a pulse or circulate blood is known as asystole. Electrocardiagraphic activity may continue after asystole without interfering with the determination of death. *See* Steinbrook, *supra* note 22, at 910.

[27] *See* Don Marquis, *Are DCD Donors Dead?*, Hastings Center Rep., May-June 2010, at 24, 24.

[28] *See* Steinbrook, *supra* note 22, at 210.

is transplanted, or sometimes placing large catheters in arteries so that organ preservation solutions can be infused into the body as quickly as possible after death is declared.[29] Uncontrolled DCDD is less common. It occurs when a patient unexpectedly dies from cardiac arrest, and physicians still have some ability to preserve the organs until transplantation can occur. The types of patients who commonly participate in DCDD include patients on ventilators suffering from serious and irreversible brain injury, patients with high spinal cord injuries, and/or patients who are so close to death that further treatment is futile.[30] These individuals are not "brain dead," but their chances of recovering are slim to none, and they, or their surrogates, may wish to withdraw life support and also have the desire to serve as organ donors.

The majority of organ donors continue to be individuals who have been declared "brain dead," but the relative contribution of DCDD has increased in the last fifteen years. In 1995, 98% of organ donors had been declared "brain dead," but the percentage decreased to 90% by 2006.[31] The Joint Commission, an organization responsible for the accreditation of hospitals, has issued a standard that hospitals with the capability to conduct DCDD must create donation policies that address the opportunities for DCDD or justify the choice not to engage in DCDD.[32] This standard will likely cause the rate of DCDD to increase.

Given the trend towards increasing DCDD, how well-justified are the standards that are used? In 1997, the Institute of Medicine (IOM) was asked to address the key issue of irreversibility with respect to cardiac and circulatory criteria for death. The concern was that although irreversible cessation of heart and circulatory function is part of the ordinary, common-sense way we understand death and is also included in the Uniform Determination of Death Act, it is far from clear if irreversibility can be premised on the decision of an authorized decision-maker to take a patient off life support and that patient's heart stopping for some short period of time.[33]

The IOM concluded that as long as families were not pressured into deciding to withdraw life support (i.e., no one on the organ procurement team so much as consulted with the family before they made the decision), and five minutes had passed after the last heartbeat that circulated blood, DCDD was appropriate. However, the IOM did not cite a strong evidence base for their decision, admitting that the five minute recommendation "is only an expert judgment," and recommended that further research be conducted to settle the issue.[34] The American College and the Society of Critical Care Medicine supported this recommendation in a position statement in 2001. They

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[29] *See id.* at 211-12; *see also* United Network for Organ Sharing, *Attachment III to Appendix B of the UNOS Bylaws: Model Elements for Controlled DCD Recovery Protocols*, at 1 (Mar. 23, 2007), http://www.unos.org/docs/Appendix_B_AttachIII.pdf (noting that the next-of-kin may consent to procedures that assist with organ donations like heparin, regitine, femoral line placement, lymph node excision, ECMO, and bronchoscopy).

[30] Steinbrook, *supra* note 22, at 209.

[31] *See id.* at 211.

[32] *Revisions to Standard LD.3.110*, Joint Commission Perspectives (Joint Comm'n on Accreditation of Healthcare Orgs.), June 2006, at 7 (2006).

[33] *See* Comm. on Increasing Rates of Organ Donation, Inst. of Med., Organ Donation: Opportunities for Action 146 (James F. Childress & Catharyn T. Liverman eds., 2006).

[34] *Id.* at 145-46.

concluded that waiting two to five minutes after cardiac function stops before organ removal is physiologically appropriate and ethically acceptable.[35] The recommendations cited some limited data that suggest that spontaneous restarting of the heart does not occur after two minutes.[36]

Physicians have since pushed the boundaries of even these recommendations by shortening the amount of time after asystole that organs are procured. The newer techniques have been met with a great deal of controversy, particularly when physicians shortened the waiting period to as little as seventy-five seconds after circulation ceased.[37]

Both of these ways of determining death—based on a diagnosis of total brain failure, or based on the irreversible cessation of respiratory and circulatory function—have come under increased scrutiny and criticism because neither approach fully reflects certain truths about death. After discussing this critical scrutiny, we will go on to argue in Section III that because the current approaches to determining death are conceptually flawed and lack transparency, important decisions about life and death are inappropriately being kept from public deliberation.

A. Scientific criticisms of "whole brain death"

The determination of death under whole brain criteria has been controversial from its inception.[38] In the years since it was proposed, it became almost universally adopted as a legitimate criterion of death in the United States.[39] Many have criticized the whole brain criterion by citing scientific evidence that several important life functions continue in people who are diagnosed with total brain failure, or have raised examples of cases in which people were diagnosed with total brain failure but persisted on life support for years.[40] Some have taken these facts as evidence that the definition of death as total brain failure is not well-grounded in biology, but incorporates other philosophical, moral, or political considerations.[41]

The key claim—that patients diagnosed as meeting whole brain criteria for death have lost the integrative functioning of the organism as a whole[42]—has increasingly come under fire as conceptually unsound. Over time, a better understanding of the biological and medical status of patients diagnosed with "whole brain death" has emerged. In an influential article published in 2001, D. Alan Shewmon provided compelling evidence that the physiological basis

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[35] Ethics Comm., American Coll. of Critical Care Med., Society of Critical Care Med., *Recommendations for Nonheartbeating Organ Donation*, 29 Critical Care Med. 1826, 1826-31 (2001); *see also* J.L. Bernat et al., *Report of a National Conference on Donation After Cardiac Death*, 6 Am. J. Transplantation 281, 281-82 (2006).

[36] Ethics Comm., American Coll. of Critical Care Med., Society of Critical Care Med., *supra* note 35, at 1827.

[37] *See* Boucek et al., *supra* note 2, at 711 (citing two instances in which donations were performed after an observation period of seventy-five seconds).

[38] *See, e.g.*, Hans Jonas, Against the Stream: Comments on the Definition and Redefinition of Death, in Philosophical Essays 132 (1974).

[39] *See* The President's Council on Bioethics, *supra* note 8, at 8.

[40] Shewmon, *Somatic Integration*, *supra* note 3, at 468.

[41] *E.g.*, R. Alta Charo, *Dusk, Dawn, and Defining Death: Legal Classifications and Biological Categories*, *in* The Definition of Death: Contemporary Controversies 277 (Stuart J. Youngner, Robert M. Arnold & Renie Schapiro eds., 1999).

[42] Unif. Determination of Death Act § 1, 12A U.L.A. 781 (2008).

for "whole brain death" is unfounded. He provided examples demonstrating that most integrative functions of the body are not mediated through the brain, including the following functions that continued in patients who had been declared "brain dead": homeostasis of many different chemicals, preservation of body temperature only a few degrees below normal, digestion, wound healing, immune response to infections, sexual maturation and proportional growth in children, and stress responses to incision for organ retrieval without prior administration of anesthesia.[43] At least ten cases of gestation of a fetus in the body of a brain-dead woman have been reported in the literature.[44] One woman gestated a fetus for 107 days, and her child was born after 32 weeks in the womb.[45] Shewmon also noted that the spinal cord is involved in neural integration, and that some "brain dead" patients move spontaneously, implying that their spinal cords are relatively intact and functioning.[46] Finally, organ donation is most successful coming from patients who display clear evidence of somatic integration.[47] In order for patients to be good candidates for transplantation, they should have stable cardiovascular function, which suggests that they have some somatic integration.[48]

Recognizing the force of these criticisms and scientific evidence produced by Shewmon and others,[49] the President's Council on Bioethics released a white paper in December 2008. Their white paper straightforwardly acknowledges that the rationale for neurological determination of death either needs to be reformulated or abandoned. They first choose the terminology "total brain failure" to separate the underlying diagnosis from a determination of death.[50] Then, they propose two possibilities for moving forward. The first is to err on the side of caution, and decide that the considerable uncertainty about death means that total brain failure cannot support a determination of

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[43] Shewmon, *Somatic Integration*, *supra* note 3, at 467-68.

[44] David J. Powner & Ira M. Bernstein, *Extended Somatic Support for Pregnant Women After Brain Death*, 31 Critical Care Med. 1241, 1241-42 (2003).

[45] *Id.*; *see also* João P. Souza et al., *The Prolongation of Somatic Support in a Pregnant Woman with Brain-Death: A Case Report*, 3 Reproductive Health, no. 3, Apr. 2006 at 1, http://www.reproductive-health-journal.com/content/3/1/3; Patrick Yeung Jr., Christopher McManus & Jean-Gilles Tchabo, *Extended Somatic Support for a Pregnant Woman with Brain Death from Metastatic Malignant Melanoma: A Case Report*, 21 J. Maternal-Fetal & Neonatal Med. 509 (2008).

[46] Shewmon, *Somatic Integration*, *supra* note 3, at 470-71.

[47] Somatic integration simply means some coordination of organ function so the body works together as a whole. *See id.* at 458.

[48] *Id.* at 466.

[49] The President's Council on Bioethics, *supra* note 8, at 40.

[50] The Council qualifies its definition of total brain failure by explaining that it does not preclude the existence of islands of brain tissue that may be damaged but not completely deteriorated. Additionally, some functionality is retained in some patients diagnosed with "brain death"—they continue to secrete anti-diuretic hormone, a process that is mediated by the brain. *Id.* at 37-38. Thus, even in the relatively uncontroversial part of interpreting whether a patient has irreversible cessation of neurological functions, there remains some, perhaps very minimal, brain function. This might be a fudging of the law, or a way that the procedural component of the law (i.e., that physicians are to make the determination of death in accordance with accepted medical standards) interprets the law slightly differently than the strict meaning of the language would suggest. Notably, this is different from the question of whether whole brain death can be considered death. That is not a fudge, but an outright fiction.

death.[51] The majority of the members of the commission reject this position, however, in favor of a position that "seeks to develop a better rationale for continuing to use the neurological standard to determine whether a human being has died."[52]

Starting from the concept that an organism as a whole must be functioning to be alive (from the intuition that parts of an organism may function even when the organism as a whole has ceased to live), they argue that an organism remains alive when it continues to perform the "fundamental vital *work* of a living organism—the work of self-preservation, achieved through the organism's need-driven commerce with the surrounding world."[53] They further explain that "[t]he work of the organism, expressed in its commerce with the surrounding world, depends on three fundamental capacities." These are: (1) "[o]penness to the world, that is receptivity to stimuli and signals from the surrounding environment," (2) "[t]he ability to act upon the world to obtain selectively what it needs," and (3) "[t]he basic felt need that drives the organism to act . . . to obtain what it needs."[54] The Council focuses on breathing and consciousness as the two critical ways in which an organism conducts commerce with the environment.[55]

Although this new conception of life and death has been noted for being the first new conceptual contribution to the field in some time,[56] it is inadequate to resuscitate the concept of death as total brain failure. First, it seems that patients with total brain failure may still engage in commerce with the surrounding world and be open and receptive to their surroundings in some ways. Patients with total brain failure have been shown to engage in wound healing and fighting of infections and foreign bodies. Patients with total brain failure have also been noted to have "[c]ardiovascular and hormonal stress responses to unanesthetized incision for organ retrieval"—a clear reaction to the environment and expression of felt need for self-preservation (even though the patient was unaware and unable to act upon this reaction).[57]

Additionally, Shewmon notes that fetuses would be considered dead under this definition. Human fetuses do not breathe (they take in amniotic fluid in order to obtain oxygen), do not have a drive to breathe, and do not have "conscious self-preserving interaction with the (maternal) environment."[58] But they are unquestionably alive.

More importantly than these exceptions that challenge the standard for death, the Council's reasoning to derive the standard is fallacious. They admit

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[51] Notably, they explain elsewhere that if total brain failure cannot support a definition of death, they would not endorse abandoning the dead donor rule and allowing organ transplantation to proceed. *Id.* at 12. They also explain that total brain failure does not necessarily mean complete failure—there may yet be isolated parts of the brain that function. They claim that the relevant question, however, is the following: "*Is the organism as a whole still present?*" *Id.* at 37-38.

[52] *Id.* at 58; c*f. id.* at 95 (Personal Statement of Alfonso Gomez-Lobo, Dr. Phil) (acknowledging the majority position but supporting the first position).

[53] *Id.* at 60.

[54] *Id.* at 61.

[55] *Id.* at 64-65.

[56] Shewmon, *Resuscitated*, *supra* note 3, at 20.

[57] The President's Council on Bioethics, *supra* note 8, at 56.

[58] Shewmon, *Resuscitated*, *supra* note 3, at 22.

that a person who has permanently lost consciousness can be alive, as in patients who are in a persistent vegetative state, and a person who cannot breathe without mechanical support can be alive, as is true of patients with high level spinal cord damage who are awake and alert but require ventilators in order to breathe.[59] Then the Council concludes, without explaining why, that a person who lacks both of these abilities is dead.[60] A logically similar argument would say that a person can be a scholar without having a Ph.D., and a person can be a scholar without having a position at a university, but a person who lacks both a Ph.D. and a position at a university is not a scholar. But this is obviously not the case, because there are independent scholars who do not have Ph.D.s. Both being alive and being a scholar are defined by the performance of certain functions. Just as a person who writes scholarly articles or books for publication can be a scholar without having a Ph.D. or being employed by a university, so too can one be alive without consciousness or spontaneous breathing as long as other biological functions of the organism as a whole are being maintained. Thus, the Council fails to provide a cogent justification for the conceptual leap—that if a person has permanently lost consciousness and cannot breathe on his own, he is dead—and does not substantiate this claim.

The Council attempts to justify its reliance on these two criteria (neither of which is sufficient to prove death on its own) by arguing that although we have an intuitive understanding of death, this understanding is flawed because the reality of death is hidden from us by modern technology.[61] Just as our experience of the sun represents a false appearance that is contrary to our knowledge that the earth is revolving around the sun, the Council has argued that there is a reality of death that is masked by the use of ventilators and medications. How, then, can the Council convince us that a person who has a normal skin color, feels warm to the touch, and is breathing with the aid of a ventilator—someone who intuitively does not look like a corpse—is in fact dead?[62] Unlike those who demonstrated that the Earth revolves around the sun, the Council has not succeeded in identifying a coherent rationale for why "total brain failure" constitutes death. Without providing such a rationale, the Council cannot make the case that we should ignore both our intuitive understanding of death, and the scientific evidence that biological functioning of the organism as a whole continues after an individual experiences "brain death".

Finally, the Council's label of "total brain failure," though better than "brain dead," is still flawed. Multiple studies have shown that, in fact, most patients diagnosed as "brain dead" continue to manifest some brain functions, most commonly the regulated secretion of antidiuretic hormone, which is critical to maintaining the body's balance of fluid and salt.[63] This means that, strictly speaking, the declaration of death for most patients diagnosed as dead

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[59] The President's Council on Bioethics, *supra* note 8, at 29-30.

[60] *Id.* at 64-65.

[61] *Id.* at 50.

[62] *See* Franklin G. Miller & Robert D. Truog, *The Incoherence of Determining Death by Neurological Criteria: A Commentary on Controversies in the Determination of Death, A White Paper by the President's Council on Bioethics*, 19 Kennedy Inst. Ethics J. 185, 187-88 (2009).

[63] Amir Halevy, *Beyond Brain Death?*, 26 J. Med. & Phil. 493, 496 (2001).

on the basis of neurological criteria is inconsistent with the Uniform Determination of Death Act, which requires "irreversible cessation of all function of the entire brain." In sum, the standard diagnostic criteria for "brain death" constitute neither total brain failure nor the cessation of the functioning of the organism as a whole. The conclusion seems inescapable that "whole brain death" does not coincide with the biological definition of death that underlies the law and the established medical criteria for determining death.

B. Criticisms of DCDD

Determinations of death under DCDD protocols have come under similar scrutiny, but for different reasons. Critics have argued that the protocols and practices in wide use today fudge the meaning of "irreversibility," which is central to established criteria for death, confuse the prognosis of imminent death with the diagnosis of death, and determine that someone is dead when she is not known to be dead.

Both uncontrolled and controlled DCDD are methods of attempting to preserve organs so they can be successfully transplanted. Some medical interventions that doctors perform to preserve organs can either hasten death or even accidentally reanimate the donor.[64] When doctors use methods like artificial cardiopulmonary bypass machines, cardiac compression devices, and reinflation of the lungs, they may preserve organs but may also restart circulation or restore brain function after the donor has been declared dead.[65] Procedures that could revive the patient would call into question whether the person was accurately declared dead. Procedures that hasten death in a patient who is not yet dead may make the physician's involvement the cause of death.

More fundamentally, in the case of procuring hearts, the process is designed to increase the chances that the donor's heart is able to beat and function in another person's body. Yet, DCDD protocols require irreversible cessation of circulatory function. Critics question how cessation of circulation can be considered irreversible when doctors wait very short periods of time after asystole in order to ensure that the heart will function after transplantation. Because the donated heart is able to function in another body, some argue that the donor's heart and circulation would have been able to be restarted in the donor's body.[66] Therefore, some argue that some DCDD protocols use donors who do not fit the circulatory criteria for determining death: they are imminently dying, but are not actually dead.[67]

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[64] Mohamed Y. Rady et al., *"Non-Heart-Beating," or "Cardiac Death," Organ Donation: Why We Should Care*, 2 J. Hosp. Med. 324, 332 (2007).

[65] Harrington, *supra* note 9, at 127-29.

[66] Yorick J. de Groot & Erwin J. O. Kompanje, Letter to the Editor, *Policies of Children's Hospitals on Donation After Cardiac Death*, 302 JAMA 844, 844 (2009); *see also* Calixto Machado & Julius Korein, *Irreversibility: Cardiac Death Versus Brain Death*, 20 Revs. Neurosciences 199, 201 (2009) ("[T]he cardiorespiratory definition of death does not assure irreversibility, because CPR, extracorporeal circulation, etc., allow recovery of heartbeat after prolonged periods of asystole.").

[67] David Wainwright Evans, *Seeking an Ethical and Legal Way of Procuring Transplantable Organs from the Dying Without Further Attempts to Redefine Human Death*, 2

Other sources of evidence about whether a heart has irreversibly stopped are cases in the published literature in which a heart has stopped beating but then spontaneously restarts after some period of time. A systematic review of this phenomenon, called autoresuscitation, identified thirty-two cases of autoresuscitation in the published literature.[68] All of these cases occurred after a failed attempt at cardiopulmonary resuscitation (CPR). Although one study appeared to indicate that autoresuscitation could occur thirty-three minutes after failed CPR, the most reliable evidence indicated that autoresuscitation could occur up to seven minutes after CPR was attempted.[69] Moreover, it appears that a significant number of these patients returned to consciousness and survived.[70] Others have reported rare cases of autoresuscitation (sometimes referred to as "The Lazarus Phenomenon") approximately twenty minutes after receiving CPR.[71] It has also been noted that, at the present time, "there is insufficient evidence to define the limits of autoresuscitation."[72]

Based on the available evidence, it is difficult to determine whether a donor's cessation of circulatory function may have proven to be reversible if more interventions were done or if more time had passed. Particularly for uncontrolled DCDD, where CPR has been attempted, the available evidence suggests that at least seven minutes are needed before there is some degree of certainty that the heart will not restart, and there is limited evidence to suggest that certainty cannot be obtained unless physicians wait even longer periods of time. Of course, the available evidence does not raise substantial concerns about controlled DCDD, where CPR has not been attempted. However, there is not *enough* evidence to be certain whether the waiting periods in use today are sufficiently long to establish certainty of death,[73] and there are significant legal consequences if they are insufficient. If a donor is not dead after the waiting period and his heart is capable of restarting spontaneously, then the transplant surgeon who removes the organs may be the cause of that person's death, and therefore in violation of the dead donor rule.[74]

The claim that cessation of circulatory functioning is irreversible under DCDD protocols has also been challenged on conceptual grounds. As Dan Brock has observed, "[t]he common sense understanding of the irreversibility

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PHIL. ETHICS & HUMAN. MED., no. 11, June 2007 at 2, http://www.peh-med.com/content/pdf/1747-5341-2-11.pdf.

[68] K. Hornby, L. Hornby & S. D. Shemie, *A Systematic Review of Autoresuscitation After Cardiac Arrest*, 38 CRITICAL CARE MED. 1246, 1248 (2010).

[69] *Id.*

[70] *Id.*

[71] Jocelyn Downie et al., *Eligibility for Organ Donation: A Medico-legal Perspective on Defining and Determining Death*, 56 CANADIAN J. ANESTHESIA 851, 858 (2009); Vedamurthy Adhiyaman et al., *The Lazarus Phenomenon*, 100 J. ROYAL SOC'Y MED. 552, 552 (2007) (defining the Lazarus Phenomenon as "delayed return of spontaneous circulation (ROSC) after cessation of cardiopulmonary resuscitation (CPR)" and noting that it is a rare, but real, phenomenon).

[72] Hornby, Hornby & Shemie, *supra* note 68, at 1248.

[73] *Id.* at 1251 ("The existing data are of insufficient quality to support or refute the recommended waiting period to determine death after a cardiac arrest in the context of DCD.").

[74] *See* Robert Veatch, *Donating Hearts After Cardiac Death—Reversing the Irreversible*, 359 NEW ENG. J. MED. 672, 672 (2008).

of death is that it is not *possible* to restore the life or life functions of the individual, not that they will not in fact be restored only because no attempt will be made to do so."[75] A few states also endorse this sense of irreversibility by requiring that physicians attempt resuscitation or confirm that resuscitation attempts would have been futile.[76] Although there are few cases on what counts as the irreversible cessation of circulatory and respiratory function, the cases that have dealt with this issue directly or indirectly have held that people who could have been resuscitated did not fit this description.[77]

Others have argued that perhaps the term "irreversible" should be understood differently. Although it cannot be denied that some donors had the potential to be brought back to life had CPR or other interventions been attempted, it is also true that controlled DCDD occurs when doctors cannot attempt resuscitation because it would be contrary to the patients' fundamental right to withdraw consent to treatment. Instead of asking whether there was any possibility that the heart could have been restarted if doctors used all life-saving measures, they contend that what matters is the fact that respiratory and circulatory functions have stopped irreversibly based on the fact that doctors are legally barred from restarting the heart. Because doctors cannot legally force life-saving measures on a person who has decided to stop treatment or refuse resuscitation, and because doing so would be unethical and a violation of that person's autonomy, a determination of death on circulatory criteria under these circumstances reflects a kind of legal or ethical irreversibility.

Some have noted that the differences between uncontrolled DCDD and controlled DCDD underscore this pragmatic and normative conception of irreversibility. Uncontrolled DCDD in patients who have not already made

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[75] Dan W. Brock, *The Role of the Public in Public Policy on the Definition of Death*, *in* THE DEFINITION OF DEATH: CONTEMPORARY CONTROVERSIES, *supra* note 41, at 293, 298.

[76] *E.g.*, OKLA. STAT. ANN. tit. 63, § 3122 (West 2004) ("A determination of death must be made in accordance with accepted medical standards; provided however *all reasonable attempts to restore spontaneous circulatory or respiratory functions shall first be made* . . . .") (emphasis added); VA. CODE ANN. § 54.1-2972(A)(1) (2009) ("In the opinion of a physician duly authorized to practice medicine in this Commonwealth, based on the ordinary standards of medical practice, there is the absence of spontaneous respiratory and spontaneous cardiac functions and, because of the disease or condition which directly or indirectly caused these functions to cease, or because of the passage of time since these functions ceased, *attempts at resuscitation would not, in the opinion of such physician, be successful in restoring spontaneous life-sustaining functions*, and, in such event, death shall be deemed to have occurred at the time these functions ceased . . . .") (emphasis added).

[77] *See, e.g.*, Finnegan v. Finnegan, No. FA074031514, 2008 Conn. Super. LEXIS 426, at *3 (Conn. Super. Ct. Feb. 19, 2008) (The court rejected the defendant's claim that because he had three heart attacks and was resuscitated each time, his marriage had ended by death. Referring to the state statute with language from the Uniform Definition of Death Act, the court found that "[t]he defendant's alleged 'deaths' were neither permanent nor irreversible."); Jefferson Cnty. v. E. Idaho Reg'l Med. Ctr., 883 P.2d 1084, 1087 (Idaho Ct. App. 1994) (In a dispute over whether a county fund had to pay a hospital for resuscitation efforts on a particular indigent woman, the court concluded that a woman could not be declared dead by a layperson or by a posthumous review of her medical records, but only after resuscitative efforts had been tried and had failed.); People v. Selwa, 543 N.W.2d 321, 322-23 (Mich. Ct. App. 1995) (finding that a man was properly bonded for trial on a negligent homicide charge when a six and a half week old fetus was born without a heartbeat but was resuscitated and appeared to have lived for a few hours).

the decision to withdraw life support and die unexpectedly requires a more rigorous test to determine when death occurs. In uncontrolled DCDD, where the patient has not chosen to withdraw life-support and stop receiving life-saving therapies, irreversible cessation of cardiac function means that all reasonable life-saving interventions have been tried and have failed.[78] For controlled DCDD, irreversibility reflects the fact that physicians are legally constrained against using interventions that may have been able to reverse the outcome.

Don Marquis argues that the fact that physicians are ethically or legally prevented from resuscitating someone does not mean that the person's circulatory and respiratory function has irreversibly stopped. Marquis provides at least two reasons in support of his argument. First, suppose a person chooses not to withdraw life support or institute a do not resuscitate order (DNR). That person may be biologically identical to another person who has decided to withdraw life support or institute a DNR, but this version of irreversibility would require categorizing the first person as alive and the second person as dead, regardless of the fact that they are in the same biological state. This creates a tortured interpretation of death that does not conform to the biological reality.

A second reason Marquis disagrees with the idea that irreversibility can be based on ethical or legal restrictions is that this view does not conform to our ordinary understanding of irreversibility. Reversible, like the terms soluble, fragile, or flammable, describes what an object is capable of doing. Dead, like the terms dissolved, broken, or burned, describes what has already transpired to actually change the state of the object. So even if I am holding my friend's prized Faberge egg, and it would be illegal or unethical of me to deliberately break the egg, it still makes sense to describe the object as fragile. Similarly, the cessation of circulation is reversible if it is possible to reverse it, even if doctors would be legally or ethically constrained from doing so.[79] Another way to illustrate this point is, if a surrogate decision-maker authorized withdrawing therapy but changed his mind two minutes after the therapy was withdrawn, physicians could likely restart circulation in a patient who would be declared dead under standard DCDD protocols.[80] In sum, in the case of controlled DCDD, the cessation of circulation for a few minutes is treated as if it were irreversible, in reliance on the fact that the patient's or the surrogate's prior decision precludes resuscitation attempts, but not because doctors lack the technological ability to restart circulation. Therefore, circulation and respiration are not known to be irreversibly stopped at the time that death is declared.

Some have argued that irreversibility is the same thing as permanence, and because no attempts will be made to restart circulation and respiration, organ donors meet the criteria for determining death. Circulatory and respiratory function have permanently stopped in a donor under a DCDD

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[78] Thomas Huddle, Michael A. Schwartz, F. Amos Bailey & Michael A. Bos, *Death, Organ Transplantation, and Medical Practice*, 3 PHIL. ETHICS & HUMAN. MED., no. 5, Feb. 2008 at 1, 3, http://www.peh-med.com/content/pdf/1747-5341-3-5.pdf; N. Zamperetti, *Defining Death in Non-Heart Beating Organ Donors*, 29 J. MED. ETHICS 182, 182 (2003).

[79] Marquis, *supra* note 27, at 27.

[80] Brock, *supra* note 75, at 298-99; *see* Machado & Korein, *supra* note 66, at 200.

protocol because there is no intent to attempt CPR, life sustaining treatment will be withdrawn, and the donor's organs will be transplanted.[81] James Bernat argues that "[p]hysicians can confidently declare the donor dead after 5 minutes of asystole and apnea, because without autoresuscitation or CPR, the cessation of circulatory and respiratory functions is permanent (will not return), and it inevitably and rapidly becomes irreversible (cannot return)."[82] Therefore, the argument goes, circulation and respiration are irreversibly stopped at the time death is declared—two to five minutes after asystole—and the criteria for determining death have been met.[83]

Upon further examination, it is clear that whether something is permanent is different from whether it is irreversible. A person's heart may have permanently stopped at asystole if a decision was made to forego CPR and withdraw life-sustaining treatment, but it could not be described as *irreversibly* stopped at that time. The time at which the cessation can be known to be irreversible is longer than the standard waiting period, and could even occur when the organs are being transplanted. Even when a donor successfully donates organs and is never resuscitated, asystole signaled the *permanent* cessation of that person's circulatory function, but may not have signaled the *irreversible* cessation of circulatory function at that time. For instance, Marquis provides the example of a person living in a developing country who has aortic stenosis and no access to treatment for it. If that person lives with that condition for the rest of her life, it can be considered a permanent condition for her. However, had she been able to travel to a developed country and obtain treatment for her condition, the condition clearly could have been reversed. So her condition was not irreversible, but it was permanent. As Marquis sums it up, "irreversibility entails permanence; permanence does not entail irreversibility."[84] For all of these reasons, the most logical conclusion is that DCDD occurs with donors who are not known to be dead.

III. ARE OUR STANDARDS FOR DETERMINING DEATH FICTIONS?

The determination of death in the context of current practices of vital organ donation involves legal fictions. To understand why this is so, we must first understand what legal fictions are and what they are not.

A. Defining legal fictions

Fictions pervade many aspects of life. Fictions are untruths, whether patently false or not, that are treated as true and used in the service of particular ends. They may be benign attempts to appease concerns, or they may be used in order to avoid the cognitive dissonance of noticing that two practices do not fit with each other, even though neither is thought desirable to abandon. For instance, many hotels with more than thirteen floors will not

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[81] James L. Bernat, *The Boundaries of Organ Donation After Circulatory Death*, 359 New Eng. J. Med. 669, 670 (2008).

[82] *Id.* at 670-71.

[83] *Id.*

[84] Marquis, *supra* note 27, at 26.

label the thirteenth floor accurately. To ease the worries of people who think the number thirteen is unlucky, they simply call it the "fourteenth" floor.[85] On an individual level, there is empirical evidence that research subjects create fictions for themselves in order to resolve cognitive dissonance.[86] Fictions also operate on much larger levels, when we as a society would rather not confront the dissonance between two dearly-held beliefs. An example of this may be the fiction that judges act as "umpires" who strive to implement the rules they are given, as opposed to political and fundamentally human actors who construct the facts and the law in contested cases.[87]

Legal fictions are a special category of fiction. Although legal fictions have been defined in different ways by legal scholars, Lon Fuller's classic book gives perhaps the most clear and thorough account of legal fictions.[88] A legal fiction is essentially a metaphorical or heuristic device—it involves making a clearly false statement/claim in order to serve some legal purpose. A legal fiction can be "either (1) a statement propounded with a complete or partial consciousness of its falsity, or (2) a false statement recognized as having utility."[89] In general, legal fictions are not intended to deceive, but rather to allow the law to expand into new areas while tempering the degree of change that the law must undergo. There may be times when the law must accommodate new concepts, and fictions are the "growing pains" of the law. They may be especially important in cases where it is not clear what the best way is for the law to address a novel situation. The classic example of a legal fiction is the fact that the law *treats* corporations as persons, even while it is perfectly clear that a corporation is different from what we usually understand is a person. Judges do not attempt to hide the fact that a corporation is different from a person in many ways, but treating corporations as persons allows a well-developed body of law relating to persons to be imported and used in the corporate context, rather than requiring a case-by-case approach to resolving issues related to corporations.[90]

Though legal fictions are often thought of as judicial creations, legislatures also create them. For instance, the Veteran's Bill declared that World War I veterans with particular diseases were conclusively presumed to have become ill during service, and were therefore eligible for free treatment, no matter what the actual circumstances of infection happened to be.[91] Statutory fictions may well be rarer than judicial fictions. Jeremy Bentham, a

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[85] Brian H. Bix, Law and Language: How Words Mislead Us, Reappointment Lecture to the Frederick W. Thomas Chair at the University of Minnesota 2 (Apr. 7, 2009), http://ssrn.com/abstract=1376366.

[86] *See* Leon Festinger & James M. Carlsmith, *Cognitive Consequences of Forced Compliance*, 58 J. Abnormal Soc. Psych. 203, 209 (1959) (concluding that "[i]f a person is induced to do or say something which is contrary to his private opinion, there will be a tendency for him to change his opinion so as to bring it into correspondence with what he has done or said").

[87] *See* Jerome Frank, *What Courts Do in Fact*, 26 Ill. L. Rev. 645, 655 (1931) (noting that judges arrive at their decisions by "hunches" that come from "[t]he effect of innumerable stimuli on what is loosely termed 'the personality of the judge'").

[88] Lon Fuller, Legal Fictions (1967); *see also* Louise Harmon, *Falling Off the Vine: Legal Fictions and the Doctrine of Substituted Judgment*, 100 Yale L. J. 1, 14-16 (1990).

[89] Fuller, *supra* note 88, at 9.

[90] *Id.* at 12-14.

[91] *Id.* at 92.

vehement critic of legal fictions, saw them as attempts by judges to usurp the role of the legislature by creating or extending the law.[92] For this reason, it seems that legislatures have less need to resort to a legal fiction. Unlike judges, legislatures are not constrained by precedent—they already have the power to shape the law as they see fit.

Lon Fuller suggests that a statutory legal fiction might be created in order to simplify the expression of a particular concept or explain an extension of the law in familiar terms.[93] Another explanation for the existence of legal fictions more generally is that they are nostalgic or conservative devices to preserve the form of the law, even while changing the substance.[94] This explanation might be behind legislators' use of legal fictions; they might feel more comfortable making important or dramatic legal changes if they are able to preserve familiar legal language. Legislatures are constrained by factors like public opinion and the need to build consensus (or at least attain a majority). Thus, even legislators who are not concerned about changing the law dramatically may resort to fictions to ease the concerns of their less sanguine colleagues. The motivations for legislators who resort to a fiction may be different from judges who do so, but the effects are very similar.

Legal fictions may also develop in less clear ways. For instance, multiple courts may be involved in developing a fiction over time—one court can start the work, and others can build on that precedent to allow the law to grow in a particular direction. As the history of the determination of death illustrates, respected scientific bodies may issue recommendations that the law later follows. Without the ability to assess the scientific validity of those recommendations, lawmakers may be led astray and may codify a legal approach that does not reflect the facts.

Sometimes, the fictive nature of a particular law may also become evident over time. For instance, laws may be created based on an understanding that a certain factual claim is true, and advancing empirical evidence may, over time, transform that law into a legal fiction. Alternatively, practice in a given field may advance beyond what the existing law permits, but legal authorities may see no need to reconcile the law and practice overtly, thereby allowing the reconciliation of the two to be done by analogy instead. Fictions that form in this manner include the determination of death based on total brain failure, as we will discuss in the next section. These fictions are likely to be unacknowledged and opaque.[95]

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[92] Jeremy Bentham, The Collected Works of Jeremy Bentham: A Comment on the Commentaries and a Fragment of Government 509 (J.H. Burns & H.L.A. Hart eds., Oxford Univ. Press 1977) (1838) (describing a legal fiction as a "willful falsehood, having for its object the stealing legislative power, by and for hands, which could not, or durst not, openly claim it,—and, but for the delusion thus produced, could not exercise it").

[93] Fuller, *supra* note 88, at 90 ("In accordance with the notion that the legislator 'commands' or is 'all-powerful,' it is often assumed that if fictions *are* found in legislation they are to be construed as expository devices—mere conveniences of expression.").

[94] Louise Harmon, *supra* note 88, at 9 (citing J. Austin, Lecture on Jurisprudence or the Philosophy of Positive Law 308 (1874)).

[95] As Fuller explains, "[t]he use of the word 'fiction' does not always imply that the author of the statement positively disbelieved it. It may rather imply the opinion that the author of the statement in question was (or would have been had he seen its full implication) aware of its inadequacy or partial untruth, although he may have believed it in the sense that he could think of no better way of expressing the idea he had in mind." Fuller, *supra* note 88, at 8.

To be clear, some fictions are inappropriately classified as legal fictions. Peter Smith has argued for the emergence of "new legal fictions," or instances where the law relies on claims that are false or inaccurate.[96] Smith takes the emergence of scientific and empirical data that courts are struggling to incorporate into the law as the parent of several fictions. Smith appears to consider any false claim used by the judiciary a legal fiction, rather than separating out different categories of fiction. However, not all false claims related to the law are legal fictions.

One example that Smith seems to mischaracterize is the admissibility of eyewitness testimony, under the presumption that the jury can evaluate its reliability. There is a large body of evidence that eyewitness testimony is often unreliable, and particularly so in certain cases, such as cross-racial identification.[97] Moreover, data suggest that jurors are especially bad at evaluating eyewitness testimony, but some judges admit eyewitness testimony and allow juries to evaluate it without regard for this evidence.[98] This example seems different from a classical legal fiction. It involves a factual assumption imbedded in the law that is clearly false, even though the courts rely on its truth. This type of falsehood lacks the objectives that are often characteristic of legal fictions, and does not invoke an analogy to extend the law. It simply seems to be an error that courts are reluctant to admit. Falsehoods such as these may be better characterized as "empirical legal errors" and should not be confused with genuine legal fictions.[99]

B. Does "whole brain death" count as a legal fiction?

Alta Charo has argued that any biological definition of death is a legal fiction "since the biological definition of death is, like many biological phenomena, inherently ambiguous."[100] This perspective, however, has been explicitly rejected by two U.S. public bioethics commissions that have

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[96] Peter J. Smith, *New Legal Fictions*, 95 Geo. L.J. 1435, 1437 (2007).

[97] *Id.* at 1452-53, 1453 n.80.

[98] *Id.* at 1453-54.

[99] Nancy J. Knauer, *Legal Fictions and Juristic Truth*, 23 St. Thomas L. Rev. 1, 19-20 (2010). Some might conflate this discussion of legal fictions with the more fundamental legal realist critiques that the way we understand the process and procedures of making law is fictitious. This confusion may arise from the fact that Lon Fuller was an early legal realist who contributed a great deal to our understanding of legal fictions. Niki Kuckes, *The Useful, Dangerous Fiction of Grand Jury Independence*, 41 Am. Crim. L. Rev. 1, 5 (2004) (citing Lon L. Fuller, *American Legal Realism*, 82 U. Pa. L. Rev. 429, 443 & n.31 (1934)) (noting that Lon Fuller was one of the early realists). However, legal fictions should be understood as heuristic devices that transparently extend the law. Because of their transparency, they are distinct from the practices that legal realists seek to understand, like the notion that judges merely find the facts and apply the law to them. *Cf.* Frank, *supra* note 87, at 655 (describing the influence of "the personality of the judge").

Two commentators have developed the beginnings of a typology for legal fictions. *See, e.g.*, Smith, *supra* note 96, at 1437; Note, *Lessons From Abroad: Mathematical, Poetic, and Literary Fictions in the Law*, 115 Harv. L. Rev. 2228, 2240-44 (2002). Others have made some helpful distinctions about types of fictions and the harms of using them. Todd Barnet, *Legal Fiction and Forfeiture: An Historical Analysis of the Civil Asset Forfeiture Reform Act*, 40 Duq. L. Rev. 77, 81-84 (2001). The important work that remains to be done is the development of a thorough typology of the different types of heuristic devices employed by different legal fictions and the advantages and disadvantages of different categories of fictions.

[100] Charo, *supra* note 41, at 277.

developed reports on the determination of death based on a biological definition. The President's Commission was careful to describe their policy recommendation to adopt the whole brain criterion for determining death as one that "must accurately reflect the social meaning of death and not constitute a mere legal fiction."[101] Twenty-seven years (and much controversy) later, the President's Council argued for the need to develop a new biological rationale for "total brain failure" as a criterion for determining death, owing to the recognition that patients diagnosed as "brain dead" may continue to manifest a range of integrative functioning of the organism as a whole with the aid of mechanical ventilation. Even so, they emphasized that the definition of death as total brain failure should *not* be thought of as a legal construct in order to promote organ donation. Instead, they claimed that the neurological standard for determining death is sufficient to reach an accurate conclusion that death has occurred.[102]

There are reasons to believe that the commissions actually were engaging in legal fictions, even though they did not acknowledge what they were doing publicly or perhaps even to themselves. As discussed *supra*,[103] many critics have questioned whether individuals can be truly dead when they have sustained neurological injury indicating total brain failure but continue to circulate blood, breathe, and perform other biological functions with the aid of mechanical ventilation, and the most recent Bioethics Commission was well aware of these criticisms. Regardless, both commissions' strong denunciations of using legal fictions suggest that if the whole brain criterion is a legal fiction, it is unacknowledged.

What type of legal fiction is the notion that "brain death" is death? Alta Charo identifies the determination of death as a legal fiction because she thinks death is an ambiguous concept, and any line we draw will not accurately capture all of the relevant cases. This type of fiction involves "bright line" rules that are designed to capture most, but perhaps not all, cases. One example of this type of fiction is how the rights and responsibilities of adulthood are granted to individuals. As soon as a child reaches the age of majority (eighteen in most states),[104] that child is legally transformed into an adult, with rights to do things such as vote, marry without parental permission, and consent for oneself to contracts or medical treatment or research participation. Yet, children do not magically become adults when they turn eighteen. Each individual person grows and matures at different rates, and some children are more mature than many adults. It would be unworkable to have completely different standards for adulthood for every person, depending on his or her personal maturity and competency. Rather, the law draws a bright line that sometimes gets it right, but can be both under- and over-inclusive.

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[101] President's Comm'n for the Study of Ethical Problems in Medicine and Medical and Behavioral Research, *supra* note 14, at 31.

[102] The President's Council on Bioethics, *supra* note 8, at 50; *id.* at 103 (Personal Statement of Gilbert C. Meilaender).

[103] *See supra* Part II.A.

[104] Kimberly M. Mutcherson, *Whose Body Is It Anyway? An Updated Model of Healthcare Decision-making Rights for Adolescents*, 14 Cornell J.L. & Pub. Pol'y 251, 256 (2005).

Bright line fictions will often track the truth, and they would be unreasonable if they mostly failed to do so. Their falsity comes from the claim that the bright line makes the correct distinction in all cases. For instance, the bright line drawn at the age of eighteen separating adults from children fails to consider some adolescents as adults even when they are ready for the rights and responsibilities that would result. It also fails to distinguish adults who are slower to mature than others and gives them rights and responsibilities for which they may be ill-prepared. However, these types of fictions make it easier to draft laws when there are a variety of different cases the law has to cover—they increase the law's ability to dispatch complex cases without requiring a great deal of judicial reasoning.[105] They also do a better job of providing clear notice to people about how the law will treat a particular issue than would a more discretionary or flexible approach.[106]

Do the determinations of death in contemporary medicine reflect bright line fictions that allow for administrability in the judicial process, as Charo suggests? It may be that death is very difficult to define, and creating a rule to define death that can be administered consistently across the land is nearly impossible. If that were true, there may be legitimate reason for turning to a legal fiction instead of throwing our hands up and merely stating that death is very difficult, if not impossible, to define. Yet, the whole brain criterion of death is not a bright line rule that fails to capture all relevant cases. The commissions that have propounded the whole brain definition of death have defended it on the grounds that it captures the truth about death, not that it captures some but not all cases. In addition, the fact that some states allow for different definitions of death for people of different religious faiths[107] suggests that the need for one consistent bright line rule is hardly paramount. Finally, the traditional and commonsense understanding of death is that death occurs when heart and lung function have ceased and cannot be resuscitated—when a person becomes a corpse. This appears to be a relatively easy and clear way to define death, which is fully suitable for most legal purposes, so it is unlikely that the administrability concerns alone are what motivated this fiction. It has to be something else—the drive for organ donation, perhaps—that has led medicine and the law away from the default, traditional criteria for determining death.

Because "whole brain death" is simply not the same as death, understood in accordance with the established biological conception, this legal fiction is better described as a "status fiction" that draws an analogy between two clearly different concepts. Status fictions, like the fiction that a corporation is a person, are fictions that treat A as if it were B because they are relevantly similar for determining what law should apply to them. "Whole brain death" does not fit with the biological definition of death established in medical

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[105] The distinctions between rules and standards are well-covered in the literature. In general, rules are easier and less costly to apply. See Erik A. Posner, *Standards, Rules, and Social Norms*, 21 HARV. J.L. & PUB. POL'Y 101, 102-03 (1997) (explaining that "a person can more cheaply inform himself of a rule than inform himself of a standard . . . given that the person (or his lawyer) merely consults the legislative code in order to determine the content of a rule, whereas he would have to study and interpret a body of case law in order to predict how a court would apply a standard").

[106] *Id.*

[107] Olick et al., *supra* note 20, at 183.

practice and endorsed by public bioethics commissions, nor does it fit with the common concept of death. It is a state in which profound neurological damage causes the permanent loss of consciousness and the inability to meaningfully interact with the world or operate many bodily functions, which arguably makes people's lives lacking in any humanly significant value. Nevertheless, it strains credibility to think that a corpse can remain warm to the touch, heal wounds, gestate babies, or go through puberty.[108] In sum, the whole brain criterion of death is not a bright line fiction that captures some cases and not others. Rather, it is a "status" legal fiction that permits us to treat persons who are not dead as if they are dead.[109]

Standard "status" fictions that are legal fictions are transparent fictions. No one actually thinks that a corporation is a person in the way that a human being is a person. By contrast, it is simply not true that everyone knows that "whole brain death" is not death. Because it lacks transparency but otherwise has the characteristics of a classic legal fiction, it seems that the whole brain standard of death is best understood as an *unacknowledged* legal fiction—one that is being used in a way that conceals the underlying normative or policy choice. When the "whole brain death" criterion was first introduced, it is possible that it may have been developed and maintained because of concerns about the legitimacy of organ donation, without much attention paid to why irreversible apneic coma constitutes death. In any case, it was believed cessation of circulatory functioning would inevitably and quickly follow the determination of "brain death" regardless of technological interventions. Today, however, the evidence is in, and it is clear that "whole brain death" is not death on the basis of a biological definition relating to the functioning of the organism as a whole.

Some might argue that there are important moral reasons for maintaining this fiction, one reason being that it is necessary to allow the practice of organ donation to have legitimacy in the eyes of the public. If organ donation would not be politically feasible without the public being deceived about when death occurs, then there may be substantial reasons behind the existence and maintenance of this unacknowledged legal fiction. There are also considerable dangers involved in retaining an unacknowledged legal fiction. The claim may be that achieving this important end requires deceiving the public, but without empirical evidence to believe this claim, it is problematic that such a value-laden and important issue remains outside the realm of issues on which we have public and democratic deliberation.

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[108] *See supra* Part II.A.

[109] Surprisingly enough, treating people who are not dead as if they were dead has some precedent. The historic use of "civil death" was the way that European countries once decided how to treat ex-convicts, and was also used in the United States to a lesser degree. Someone who had been convicted of a serious offense was treated as if he had died and was no longer a member of society. In fact, "until the 1960s consequences of criminal convictions in the United States included the automatic dissolution of marriage, the denial of licenses ranging from employment to fishing permits, and the inability to enter into contracts or to engage in civil litigation." Nora V. Demleitner, *Preventing Internal Exile: The Need for Restrictions on Collateral Sentencing Consequences*, 11 STAN. L. & POL'Y REV. 153, 154-55 (1999). It is not clear whether the fact that people who have been convicted of felonies still lose the right to vote is a holdover from this now antiquated legal fiction.

C. Does DCDD involve a legal fiction?

The determination of death in the context of DCDD protocols involves a different type of legal fiction, but one that is also unacknowledged. The legal fiction operating in DCDD derives from fudging the meaning of the word "irreversibility." DCDD requires that a person's cardiac and circulatory function stops irreversibly. DCDD is carried out when there is at least some, and perhaps significant, uncertainty about the irreversibility of the loss of circulatory function. Physicians are procuring vital organs short periods of time after asystole, when it is possible that circulation might be restored spontaneously and likely that resuscitative measures could be successful in restoring circulation. This is especially problematic given that the heart is removed and can be restarted in another person. Thus, the donors involved in DCDD are "not known to be dead."[110] The clear alternative is to make the criteria for DCDD stricter. Doctors could wait longer than seven minutes after asystole to make a determination of death, but this would entail a significant cost in terms of lives that could be saved by organ donation. If irreversibility were to be understood in a stricter sense, DCDD would use a bright line fiction, but one that errs on the side of caution and might result in a significant number of patients failing to be classified as dead, even though they are.[111]

As irreversibility is currently interpreted, we agree with Marquis that this approach fudges the truth about the normal meaning of irreversibility. Yet, it does so in a situation where it may be reasonable to treat the dying person as if she were already dead. The current approach to determining death in DCDD involves what we would call an anticipatory fiction. An anticipatory fiction is a fiction that allows an event to be treated as if it has occurred, even though it has not, because it will imminently occur, and waiting for it to happen will result in harm. Therefore, we are justified in treating something as if that state has been reached, even before it has actually been reached.

For example, persons can be held in breach of contract even before the deadline for performance has passed if they have not yet fulfilled the terms of the contract, but it becomes unequivocally clear that they will be unable or unwilling to do so in time.[112] This is known as anticipatory breach. In contract law, the court draws a firm line that the anticipated breach be unequivocal or absolute. This may be important to ensure that the standard for anticipatory breach does not drift too far in the direction of permitting lawsuits for breaches that may or may not occur. Another example of an anticipatory fiction might be the use of declaratory judgments to prevent patent holders from using their patents as "scarecrows" in an attempt to protect intellectual territory. Federal courts are generally not permitted to

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[110] Marquis, *supra* note 27, at 25, 30.

[111] Importantly, these patients might not be treated as dead in a detrimental way, as we explain *infra* Part V.A.

[112] Combs v. Int'l Ins. Co., 354 F.3d 568, 599 (6th Cir. 2004) ("[I]t has always been the law that where a party deliberately incapacitates himself or renders performance of his contract impossible, his act amounts to an injury to the other party, which gives the other party a cause of action for breach of contract." (quoting Roehm v. Horst, 178 U.S. 1, 18 (1900))); Wis. Power & Light Co. v. Century Indem. Co., 130 F.3d 787, 793 (7th Cir. 1997) ("The disclaimer of a contractual duty is a breach of contract even if the time specified in the contract for performing the duty has not yet arrived. It is what is called anticipatory breach.").

issue advisory opinions on abstract legal questions, and they have to address real controversies. However, in order to protect the rights of an inventor who has developed a device (or is about to) and who is legitimately concerned about infringing a patent, courts do not force this inventor to wait until he is sued for patent infringement. Instead, the court acts as if the patent holder's infringement lawsuit has been filed, provided that the potential infringer reasonably suspects that he would be sued if he continued to do work on his invention.[113]

DCDD similarly functions as an anticipatory legal fiction. In DCDD, death has not yet been reached but physicians act as if it has in order to avoid the significant harms of respecting a donor's wishes and losing organs that could be used to save lives. Many have argued that we know for certain that a person's respiration and circulation will not spontaneously restart twenty minutes after asystole (provided that the body has not been maintained at a low temperature).[114] Further, some European protocols for DCDD wait ten minutes after asystole.[115] But even setting aside the issue of whether CPR might have been successful in restoring circulation, two minutes is likely not sufficient to be completely certain that death has occurred, especially when certain organ-preserving measures may have the unintended effect of reviving the heart. However, the danger of waiting longer is that substantial harm might result. Waiting longer amounts of time might fail to respect the wishes of the person who wanted to donate her organs and compromise the success of organ transplantation, or might even render it impossible. Thus, many people's lives might not be saved for lack of organs of sufficient quality, and the donor's desire to save as many lives as possible would be thwarted.

To justify the trade-off being made here, a legal fiction is employed—the idea that because someone is almost dead, and waiting until she is known to be dead would cause harm, we can treat her as if she were dead. Importantly, there are no legal duties that prevent doctors from being able to rely on this fiction. Doctors in this situation do not have a duty to attempt to resuscitate the person; in fact, they legally cannot and ethically should not do so. Moreover, the person and/or her family have already given consent to organ donation. These protections help minimize the risk that an anticipatory legal fiction will run roughshod over other legal duties and ethical obligations. Another way to put the point is that it appears that "almost" should count in more contexts than just horseshoes and hand grenades.

IV. WHAT SHOULD WE DO NEXT?

Given that the biomedical facts relating to patients determined to be dead under our current practices do not fit with standard views of death, where do we go from here? We could maintain the status quo and preserve the (largely)

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[113] Michael G. Munsell, *The Declaratory Judgment Act's Actual Controversy Requirement: Should a Patent Owner's Promise Not to Sue Deprive the Court of Jurisdiction?:* Super Sack Mfg. Corp. v. Chase Packaging Corp., 62 Mo. L. Rev. 573, 580-82 (1997) (citing Air-vend, Inc. v. Thorne Indus., Inc. 625 F. Supp. 1123, 1125 (D. Minn. 1985), *aff'd*, 831 F.2d 306 (Fed. Cir. 1987) (unpublished opinion)).

[114] Machado & Korein, *supra* note 66, at 201.

[115] Ana L. Sanchez-Fructuouso et al., *Victims of Cardiac Arrest Occurring Outside the Hospital: A Source of Transplantable Kidneys*, 145 Ann. Int. Med. 157, 157 (2006).

unacknowledged legal fictions relating to the determination of death in the practice of procuring vital organs from those diagnosed as "brain dead" and in the context of DCDD protocols. Some might argue that "if it ain't broke, don't fix it."[116] Yet there are many reasons to be wary of staying where we are. First, as we have argued, the current approach is theoretically unsound and has been heavily criticized in the literature. Although the public generally pays little attention to the medical and bioethics literature, they are not insulated from scholarly controversy over the determination of death. The news media frequently address organ donation, with reporters drawing on professional publications. Additionally, the President's Council's White Paper is a government document that is freely available to all who request it, and it straightforwardly acknowledges that our current approaches to determining death are flawed by marshalling the evidence against them. The gap between the council's attempt to save the determination of death as "whole brain death" and the evidence is fairly apparent. Of course, more empirical evidence may be needed to determine whether the public is aware about the controversy surrounding "brain death" and DCDD. Given the extensive discussion and critiques of our current approaches to determining death, however, it is unlikely that if the public does not already have this information, it will remain unaware of these arguments for much longer.

Second, the approach currently used is keeping important moral issues out of the realm of democratic deliberation. When value-laden choices like these are being made through unacknowledged legal fictions, our policies may fail to take account of important considerations. Finally, there is some indication that the public already knows that there is a difference between how we determine death and what is actually death. Many organ transplantation sites take pains to address the "myth" that organs will be taken from someone who is not already dead.[117] Newspaper articles frequently explain that someone was declared "brain dead" and then died a few days later. This excerpt from an article providing reports on the late actress Natasha Richardson's condition is particularly illustrative: "[She] is brain dead but has not passed away. Sources close to the family indicate that they are treating it as a death."[118] A survey conducted of members of the public found considerable confusion about "brain death" and a persistent vegetative state (PVS).[119] Interestingly enough, a majority of the respondents chose to identify "brain dead" patients not as "dead"—rather, they indicated that "brain

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[116] Alex M. Capron, *The Bifurcated Legal Standard of Determining Death: Does It Work?*, in THE DEFINITION OF DEATH: CONTEMPORARY CONTROVERSIES, *supra* note 41, at 117, 130.

[117] *See, e.g.*, Mayo Clinic Staff, *Organ Donation: Don't Let These Myths Confuse You*, MAYOCLINIC.COM (Apr. 3, 2010), http://www.mayoclinic.com/health/organ-donation/FL00077 (conflating a false determination of death with the possibility of being restored to a fully functioning life).

[118] Katherine Thomson, *Natasha Richardson Brain Dead, Family Gathered (Update: She Has Died)*, HUFFINGTON POST (Mar. 17, 2009, 11:00 PM), http://www.huffingtonpost.com/2009/03/17/natasha-richardson-brain_n_175764.html.

[119] An individual with PVS is in a state of unconsciousness that has persisted for some time, where the chance of returning to a conscious state is deemed highly unlikely. However, whether individuals with PVS truly lack awareness has recently come under scrutiny, as will be discussed *supra* in Part IV.A.

dead" patients were "as good as dead" or "alive."[120] This evidence suggests that although we cannot be sure how much information about the fictions involved in the current practices of determining death is already apparent to the public, we should not be confident that the fictions used in determining death can remain hidden for the foreseeable future.

Finally, if information does become more widely known, the current legal situation is unstable. There are some notes of disquiet in the White Paper in which members of the President's Council contend that if it turns out that total brain failure cannot support a determination of death, then we should halt the practice of organ transplantation based on neurological criteria.[121] There is a risk that organ transplantation could be significantly cut back or even shut down for some time because the emerging evidence is that the current practice of organ transplantation does not fit within existing law. This risk is speculative but not far-fetched, and it would be better to address it head-on given its potentially devastating consequences.

Rather than maintaining this potentially unstable status quo, there are several possible approaches we could take for reforming the neurological standard for determining death: (1) attempting to develop a better neurological standard; (2) eliminating the use of a neurological standard for death but retaining the dead donor rule; (3) eliminating the use of a neurological standard for death and the dead donor rule, but developing a new justification for organ transplantation; and (4) turning the unacknowledged legal fiction operating in the whole brain criterion for death into a transparent legal fiction until more permanent change can occur. For DCDD, the alternatives to the status quo include the following: (1) waiting longer periods of time before organ transplantation to ensure circulatory criteria for death have been satisfied, including irreversibility in the strictest sense; (2) considering whether organs can be procured from people who have not been declared dead under circulatory criteria, but who have made valid decisions to withdraw life support and to donate their organs; and (3) transforming the existing but unacknowledged legal fiction into a transparent legal fiction. After considering the various options, we argue that acknowledging the existing legal fictions involved in the determination of death, although less than ideal, is the most ethically sound and legally feasible approach to take in the near future.

A. What to do about the determination of "whole brain death"

Could we attempt to develop another, more philosophically sound definition of death? The most promising candidate is "the higher brain standard for death," in which death is declared when a person suffers a

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[120] Laura A. Siminoff, Christopher Burant & Stuart J. Youngner, *Death and Organ Procurement: Public Beliefs and Attitudes*, 59 Soc. Sci. & Med. 2325, 2332 (2004).

[121] President's Council on Bioethics, *supra* note 8, at 12 ("*If* indeed it is the case that there is no solid scientific or philosophical rationale for the current 'whole brain standard,' then the only ethical course is to stop procuring organs from heart-beating individuals. Organ transplantation could continue, but with exclusive reliance on donors whose death is determined by the cardiopulmonary standard under a controlled DCD protocol . . . ."). Notably, we have argued that controlled DCDD as currently practiced also involves a legal fiction.

permanent loss of consciousness. This standard has been rejected by the President's Commission and the President's Council. The major problem facing a higher brain definition of death is that by abandoning a biological conception of death, it creates two completely different conceptions of death: the death of the human being as a biological organism and the death of the human being as a person. If patients diagnosed as being in PVS are determined to have permanently lost consciousness,[122] then they would be considered dead despite being able to breathe spontaneously. "Brain dead" bodies have been described as corpses or cadavers that mistakenly appear to be alive because they are being mechanically ventilated. Although, in itself, this is rather counter-intuitive, it all the more strains credulity to describe a spontaneously breathing human being as a corpse. Some of the legal consequences of death would have to be separated for the two different kinds of death. For instance, individuals who had undergone "higher brain death" would not be buried or cremated while still breathing.

The required radical departure from a common-sense understanding of death, under which people think of a cold and inanimate body, might be one barrier to the higher brain standard gaining wide acceptance. Appealing to the permanent loss of consciousness is arguably a good reason for the stance that no harm would be done to an individual diagnosed as "brain dead" from removing her vital organs to save the life of another.[123] Yet it is far from clear why the loss of consciousness makes the individual dead despite continuing to breathe and circulate blood, as well as performing other biological functions.[124] Apart from the strategic effort to uphold the dead donor rule while permitting vital organ donation from permanently unconscious patients, this approach is also a big departure from how we think of death in the rest of the biological world. Non-human animals and plants would have to be treated under a different definition of death. This approach also suggests that an embryo is not alive because it lacks consciousness and is not a person.[125] In sum, the higher brain standard of death may be conceptually difficult for the public and clinicians to embrace.

Furthermore, the higher brain standard faces a number of practical and legal difficulties. To the extent that the higher brain standard explains when the death of a *person* occurs, it does not fit with legal definitions of death

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[122] The higher brain standard is also problematic because there is reason to doubt consciousness is seated in the neocortex, which suggests that a conscious individual could be declared dead under the higher brain standard. *See* Machado & Korein, *supra* note 66, at 200-01.

[123] 1 Joel Feinberg, The Moral Limits of the Criminal Law: Harm to Others 31-64 (1984) (defining a "harm" as a setback to the interests of a person or being). This four volume treatise provides a widely-cited and influential account of harm to individuals. However, Feinberg's account of harm has been subject to some criticism. As David Shoemaker notes, although this account has been criticized for not establishing the necessary conditions for harm, even these critics recognize that Feinberg's criteria are sufficient to establish harm. David W. Shoemaker, *"Dirty Words" and the Offense Principle*, 19 L. & Phil. 545, 547 n.5 (2000). Those who favor another conception of harm may need to apply alternative conceptions to the analysis of whether a "brain dead" person or a person who has decided to withdraw therapy can be harmed or wronged.

[124] *See, e.g.*, Miller & Truog, *supra* note 62, at 188-90; Franklin G. Miller, *Death and Organ Donation: Back to the Future*, 35 J. Med. Ethics 616, 618-19 (2009).

[125] David DeGrazia, *The Definition of Death*, Stanford Encyclopedia of Philosophy (Oct. 26, 2007), http://plato.stanford.edu/entries/death-definition/.

which refer to the death of a human *individual*. Employing the higher brain standard would seem to require legal change to the definition of death. Additionally, the higher brain standard depends on a metaphysical conception of what is essential to being a human being or a person, a fundamental and value-laden issue about which no wide consensus is likely. People are likely to have a range of views about this issue, and determining death based on one conception of a person may force those who hold plausible alternative conceptions into a bind. If the determination of death informs the limits on what care hospitals will provide or insurance companies will pay for, people with plausible alternative conceptions of personhood may be forced into a tragic choice about whether to bankrupt themselves and struggle mightily to ensure their loved ones are allowed to continue to live after they have lost whatever it is that characterizes personhood. Finally, developing diagnostic criteria for the lack of personhood, or even consciousness, may be very difficult. A recent study suggested that some patients diagnosed as being in PVS, who lack any clinically-detectable signs of consciousness, may manifest awareness of their surroundings and an ability to communicate through the use of mental imaging which is detectable by brain scanning technology.[126] "Total brain failure" can reliably be diagnosed, but studies like these call into question whether we can reliably diagnose the absence of consciousness and thus personhood in patients with less profound neurological damage.

Even if the "higher brain standard" did not suffer from these difficulties, it still could only provide a partial solution to the controversies over determination of death and vital organ donation. Specifically, it would fail to provide a cogent rationale for determination of death in DCDD protocols. Just as there is no certainty that cessation of respiration and circulation is irreversible a few minutes after the heart has stopped beating, there is no certainty that the cessation of consciousness is irreversible at this time.[127]

Could there be another viable definition of death that has not yet been discovered that could resolve this controversy? As argued above, the President's Council's latest attempt to develop a new biological definition relying on the vital work that a body does with its external environment is unsatisfactory. The fact that we have been struggling with defining death since at least 1968 and have been unable to square all of the facts about life with our definition of death suggests that the goal of defining death beyond the traditional circulatory and respiratory criteria is doomed to fail.

If we cannot redefine death, for "brain dead" donors, we have to decide whether to maintain the dead donor rule.[128] One option to the evidence

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[126] Martin M. Monti et al., *Willful Modulation of Brain Activity in Disorders of Consciousness*, 362 NEW ENG. J. MED. 579 (2010). PVS patients were asked questions and asked to visualize themselves engaged in a motor activity like swinging a tennis racket or in a spatial activity like walking around observing objects in a room. Patients would indicate a yes or no response to the questions asked by visualizing either the motor activity or the spatial activity. Functional Magnetic Resonance Imaging (fMRI) was used to see which areas of the brain were activated in response to a series of yes or no questions. Five patients appeared to get the answers right to a series of personal questions.

[127] Machado & Korein, *supra* note 66, at 201.

[128] Is the dead donor rule itself a legal fiction? From one point of view, the answer is yes. As applied, the dead donor rule takes on the color of a legal fiction because the underlying determination of death rests on fictions. From another standpoint, however, the dead donor rule simply places constraints on what physicians can and cannot do. The determination of

challenging "brain death" is to halt the practice of vital organ transplantation from "brain dead" donors altogether. This might seem to be the path of deontological rectitude, but it would produce drastic consequences. Non-heart-beating cadavers would be the only source of organs, and people who have agreed to withdrawal of life support could be organ donors a suitable time after life support has been withdrawn and they have become what anyone would recognize as a corpse. But this would mean that many lives would not be saved, and the outcomes of many organ donations that did occur would be less successful than they currently are. There were more than 21,000 transplants from donors classified as deceased in 2009 under our current approaches to determining death, yet over 100,000 people remain on the national waiting list.[129] Making our criteria for determining death stricter would exacerbate this already-concerning shortage of organs. This approach may also hurt the public's willingness to donate organs because it could communicate that there is uncertainty about when death occurs (or that it is certain that "whole brain death" is not death), and that we have erred in allowing "brain dead" patients to donate for many years. This realization may shake the public's confidence in the practice of organ donation and perhaps even in the practice of medicine. More importantly, the other options available to us indicate that such a drastic move may not, in fact, be necessary.

A third option would be to become completely transparent about death and eliminate both the whole brain standard of death and the dead donor rule. We could make it very evident that although the exact boundaries of death are unclear, declaring total brain failure as death is not plausible in view of the range of functioning of the organism as a whole that remains in patients who fit this clinical condition. Adopting such a stance, while continuing to practice vital organ transplantation, would require major change. If we were to eliminate the dead donor rule, some justification for transplantation from still-living donors and criteria for defining the scope and limits of this practice would be required in order to ensure that we do not simply take organs unethically. This dramatic move would also be likely to cause the public to question whether prior organ transplantation was justified.

In some cases, death may not be a necessary precondition to vital organ donation. "Brain death" is a creature of life-support technology and intensive care. Previously, people sustaining such massive brain trauma would have died quickly. Although these patients can be maintained for longer periods of time today, given their permanent loss of consciousness and inability to interact with others, nearly everyone agrees that no humanly meaningful life

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when death occurs is found elsewhere in the law and happens to involve legal fictions. Similarly, a statute that places constraints on the campaign donations of persons is not fictitious, even though the fiction that a corporation is a person under the eyes of the law means that the statute will apply to corporations and generate a fictive outcome. Nothing much depends on whether we conceive of the dead donor rule as a second-order legal fiction or whether we think of the underlying determinations of death as legal fictions. For this reason, and because we have found analyzing the different legal fictions involved in the determinations of death to more directly take us to conceptually rich issues, we have not considered the dead donor rule to be a legal fiction in this Article.

[129] U.S. DEP'T OF HEALTH & HUMAN SERVS., ORGAN PROCUREMENT & TRANSPLANTATION NETWORK, DECEASED DONOR TRANSPLANTS IN U.S. BY STATE, http://optn.transplant.hrsa.gov/latestData/step2.asp (Step 1: Transplant; Step 2: Deceased Donor Transplants by State) (last visited Oct. 13, 2010).

remains. Furthermore, because these patients have perfusing organs, they are ideal sources of transplantation. Though these patients are still living, they can be diagnosed with total brain failure and may have clearly expressed their wishes to terminate life-sustaining treatment and serve as organ donors. These facts suggest that, for these people, death may not be a necessary prerequisite to organ donation.

A qualification is in order. "Brain dead" individuals would be wronged if their organs were procured contrary to their express preferences that this not occur (e.g., owing to their belief that doing so would be immoral because it causes death or because they choose to be buried with their organs intact). This is comparable to the wrong that would be done by burying a dead person who expressly chose to be cremated. Hence, no harm or wrong is done to "brain dead" individuals by procuring their organs provided that this does not conflict with their express preferences and that valid consent for organ donation has been obtained from them or their authorized representatives.

With the important proviso that appropriate consent is obtained for withdrawal of treatment and organ donation, procuring organs from "brain dead" but still living donors can neither harm nor wrong them.[130] Another potential concern is that death will have to occur in ways that make organ transplantation feasible—i.e., in a hospital, near an operating room, and with little time for family members and loved ones to spend with the dead body. These costs are not insignificant, but should be weighed against the interest in donating organs expressed by the donor and the family.

To capture this idea that people who are at the end of their lives and have decided to donate organs should be able to legitimately donate, some commentators have described the potential pool of donors as consisting of people who are not dead but "as good as dead."[131] The phrase "as good as dead" might be interpreted as follows: it is legitimate to treat some individuals who are still living, or not known to be dead, as if they are dead because they have no interests that can be set back by having their vital organs removed so long as appropriate consent has been obtained.

Some might be concerned that if the state permitted organ donation under these circumstances, this act may open the door to active euthanasia. However, this slippery slope concern could be addressed by creating a bright-line rule to prevent euthanasia for policy reasons.[132] Of course, the danger with a strategy of changing state laws in this manner is that such an alteration may be difficult to implement and may not spread to all states.

With this approach, several different legal changes may be required. Because definitions of death are governed by state law, one way to address this issue would be to convince states to change their laws. Just as with the

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[130] Franklin G. Miller & Robert D. Truog, *Rethinking the Ethics of Vital Organ Donations*, 38 HASTINGS CENTER REP., Nov.-Dec. 2008, at 38, 41. To be valid, consent would have to include informing patients that this type of donation is not donation after death, because the whole brain criterion does not correspond to death. Here, we are again relying upon Feinberg's account that a harm sets back a person's interests. *See* FEINBERG, *supra* note 123.

[131] Gary Greenberg, *As Good as Dead*, NEW YORKER, Aug. 13, 2001, http://www.newyorker.com/archive/2001/08/13/010813fa_FACT.

[132] *See generally* Ezekiel J. Emanuel, *The Future of Euthanasia and Physician-Assisted Suicide: Beyond Rights Talk to Informed Public Policy*, 82 MINN. L. REV. 983, 1003-10 (1998) (discussing benefits and dangers of physician-assisted suicide and euthanasia).

Uniform Determination of Death Act, a model act providing a clear definition of death and justification for transplantation could be created, and states could be encouraged to adopt it. The justification for state laws could be that the state's interest in preserving life for people who are "brain dead" is at or beyond the vanishing point, and the state's interest in preserving life for people who will die unless they get a transplant is very high. One difficulty may be that some states may choose not to adopt this justification, given the increasing politicization of end-of-life issues and the range of views a state's citizens may have.

Rather than expecting all states to change their laws governing the definition of death, another possibility would be to enact change through caselaw. If constitutional rights supporting organ donation in the absence of a declaration of death could be recognized by a high court, this may be a legal solution to the problem. How could this occur? Although the U.S. Supreme Court has recognized the constitutional right to the withdrawal of life-sustaining therapy,[133] this alone does not seem sufficient to permit organ donation from individuals who are not dead. Consent does not legally transform an act of killing; patients cannot consent to their own deaths and thereby render their doctors' actions legal.

Arguably, however, withdrawing life support after a valid refusal of treatment is justified killing, as the treatment withdrawal causes death.[134] There is some legal support for the idea that physicians might not be subject to homicide liability when a patient is exercising a constitutionally protected right. In the case of Karen Ann Quinlan, the New Jersey Supreme Court addressed whether a physician's withdrawal of life-sustaining treatment on the basis of proxy consent could be considered criminal homicide. The court relied on the fact that homicide is defined as an "unlawful" killing to conclude that a physician terminating treatment based on a patient's wishes does not commit homicide. The court explained that terminating treatment because of a patient's exercise of her right to privacy is "ipso facto lawful."[135] Therefore, death resulting from terminating treatment on the basis of a patient's wishes "would not come within the scope of the homicide statutes proscribing only the unlawful killing of another. There is a real and in this case determinative distinction between the unlawful taking of the life of another and the ending of artificial life-support systems as a matter of self-determination."[136] The court also noted that exercising a constitutional right cannot be subject to criminal prosecution, and that this constitutional protection extends to third parties helping others exercise their constitutional rights.[137] Thus, some courts have understood the act of withdrawing therapy as distinct from homicide because a physician is lawfully assisting a patient to exercise her constitutional rights.

In the context of organ recovery, however, physicians are not just withdrawing therapy. We have argued that the current criteria for

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[133] Cruzan v. Director, Mo. Dep't of Health, 497 U.S. 261, 270 (1990).

[134] Miller & Truog, *supra* note 130.

[135] *In re* Quinlan, 355 A.2d 647, 670 (N.J. 1976).

[136] *Id.*

[137] *Id.* (citing Eisenstadt v. Baird, 405 U.S. 438, 445-46 (1972); Griswold v. Connecticut, 381 U.S. 479, 481 (1965)).

determining death are flawed, so patients who are donating organs are not actually dead before transplant surgeons recover their organs. Perhaps current practices of organ donation would be better justified if courts recognized that organ donees also have a relevant fundamental right—the right to save their lives. The state would not be able to easily override the constitutional rights of donees and donors by placing limits on termination of life support for patients who have not been declared dead. However, the idea of recognizing a constitutional right to save one's life was clearly rejected in the *Abigail Alliance* case.[138] Furthermore, it is not clear how effecting the constitutional rights of donees would absolve doctors of causing the donor's death, so this solution may still be incomplete.

Neither of these legal fixes addresses the issue that if our determinations of death are recognized as untrue and the dead donor rule is abandoned, physicians who removed organs from patients under the specified conditions might be subject to liability for criminal homicide.[139] Under the common law, homicide is defined as the unlawful killing of a human being by another human being with malice aforethought. The Model Penal Code defines homicide as when a person "purposely, knowingly, recklessly or negligently causes the death of another human being."[140] Even when a person is in the process of dying, acting to cause a quicker death is still considered homicide.[141] Therefore, harvesting organs from a patient who has not been declared dead would put physicians at risk of being liable for criminal homicide. If a decision has already been made to withdraw life support, active euthanasia is still not permitted in the United States, and a physician who is the direct cause of a patient's death by removing organs before the patient's heart stopped beating could be liable for murder. This concern is a real one. In 1997, the Cleveland Clinic was investigated by a local prosecutor for developing a protocol that recovered organs a few minutes after asystole and used drugs to help preserve organs that some argue would hasten death.[142] They subsequently abandoned this proposal.[143]

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[138] Abigail Alliance v. Von Eschenbach, 495 F.3d 695 (D.C. Cir. 2007). One major concern about allowing a constitutional right to save one's life is that it may have many other implications—such as allowing patients to obtain access to experimental drugs with highly uncertain safety and efficacy and with minimal oversight—and the courts have rightly been cautious about expanding fundamental constitutional rights for this reason. *See* Richard M. Cooper, *Responding to Eugene Volokh, Medical Self-Defense, Prohibited Experimental Therapies, and Payment for Organs*, 121 HARV. L. REV. F. 31, 35 (2007). Though there might be a legitimate distinction between experimental therapy that has some unknown and likely low probability of prolonging life, and organ transplantation, which is known to save lives, judicial reluctance to expand the set of fundamental constitutional rights more generally suggests that this strategy is unlikely to succeed. *See Abigail Alliance*, 495 F.3d 695.

[139] *See* Joan McGregor et al., *Do Donation After Cardiac Death Protocols Violate Criminal Homicide Statutes?*, 27 MED. & L. 241, 245 (2008). Of course, lesser offenses might also be grounds for physician liability, such as third-degree murder, manslaughter, or battery.

[140] MODEL PENAL CODE § 210.1(1) (2009).

[141] State v. BeBee, 195 P.2d 746, 747 (Utah 1948) (murderer was still liable even though he had shot a dying victim).

[142] Gina Kolata, *Controversy Erupts over Organ Removals*, N.Y. TIMES, Apr. 13, 1997, at A28 (explaining that the protocol included the administration of Heparin to prevent blood clotting and Regitine to widen blood vessels and increase blood flow to organs).

[143] Harrington, *supra* note 9, at 108.

The Uniform Determination of Death Act has been adopted by almost all states[144] and explicitly addresses the matter of physician liability. The Act provides immunity from civil or criminal prosecution for physicians who make a determination of death in accordance with the act and for surgeons who act in good faith in reliance on another's determination of death to recover organs.[145] The Uniform Determination of Death Act could be amended to provide immunity for physicians who procure organs from patients who have been diagnosed with total brain failure or for some period of time after asystole, provided that the patients and/or surrogates had provided consent to withdraw therapy and donate vital organs.[146]

Alternatively, states could modify their criminal homicide laws to grant physicians immunity for acting in accordance with the wishes of a person (who may not be dead) to donate her organs, even after that individual is no longer able to communicate those wishes, under conditions that are carefully circumscribed. This would not be an unprecedented exception; there is a place in the law for lawful killings. Some state laws that consider the unlawful killing of a fetus homicide have exceptions to the homicide law written into the code for therapeutic abortions performed by a physician with the mother's consent.[147] Another example of a killing permitted by the state is an executioner killing an inmate who has been sentenced to death.[148]

It is clear that major legal change will be required to move toward complete transparency about the inadequacy of the current neurological standard for determining death and abandoning the dead donor rule. For this reason, perhaps the most plausible solution for the short term is to consider current practices of vital organ donation as based on transparent legal fictions. This would allow the law to permit vital organ transplantation to continue with organs donated by individuals who are regarded as legally dead but remain biologically alive or not known with certainty to be dead.

Thus, the determination that patients diagnosed with "total brain failure" are dead might be seen as a (transparent) fiction to facilitate life-saving organ donation without changing conventional medical ethics and the law relating to homicide. Of course, standard legal fictions are transparent and evident, and those who use them should be aware of their limitations. The public does not clearly understand that the definition of death as total brain failure treats still-living individuals with permanent loss of consciousness as if they were dead. It should be clear that the legal definition of death does not, in all respects, track the truth of the matter. Turning the definition of death into a legitimate, transparent legal fiction will require an evolution in awareness by the professions and the public. This would require openness about the

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[144] UNIF. LAW COMM'RS, *A Few Facts About the Uniform Definition of Death Act*, http://www.nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-udda.asp (last visited Oct. 11, 2010).

[145] UNIF. DEFINITION OF DEATH ACT, 12A U.L.A. 779 prefatory note (2008).

[146] Conferring immunity to physicians in this manner could also protect physicians from liability for lesser-included offenses like manslaughter or battery.

[147] *See, e.g.*, CAL. PENAL CODE § 187(b) (West, Westlaw through 2009 Legis. Sess.).

[148] *See id.* § 196. This appears to be permitted either because it is considered a "lawful" killing, or because it is justifiable homicide when a public official acts to kill another "[i]n obedience to any judgment of a competent court." *Id.*

purposes the definition serves and the ways in which it may depart from biological reality.

Practically speaking, a change like this might begin with the legal and medical professions. The literature should reflect the truth about death by using legal fictions terminology. It might be most notable in the way that courts and clinicians talk about death as "whole brain death." Instead of describing a person as dead, they would note that once a person has been diagnosed with total brain failure, the law will treat that person as if he were dead. As the knowledge spreads, the media likely will reflect this change in the literature and begin reporting "whole brain death" and DCDD as legal fictions. It is possible that some more systematic approach to public education would ultimately be required. One suggestion we would make is that a future bioethics commission should help to clarify the confusion that previous bioethics commissions have helped to create. Given that prior bioethics commissions have contributed to the creation of unacknowledged legal fictions about death, all the while denying that they were talking about legal fictions, a new bioethics commission may bear some obligation to set the record straight. At the very least, such a commission should discuss seriously the merits of a legal fictions strategy instead of summarily dismissing this approach.

Additionally, the legal fictions approach could be an appropriate response to legal challenges to current organ procurement practices. Given the increasing amount of discussion about the inadequacy of our current approaches to determining death, and the fact that at least one prosecutor has acted on a concern that physicians are causing death to facilitate organ transplantation,[149] it is possible that a prosecutor could bring charges against physicians or hospitals administering standard organ transplantation protocols. If this were to happen, a judge might find it difficult to respond that physicians are not causing death in the face of the accumulating evidence to the contrary. A better response could be to use a transparent legal fiction that admits the truth but allows the existing law to continue to treat people as if they were dead in certain, well-justified circumstances.

This increased transparency would also have to extend to the consent for donation given by patients and their families. Patients, families, and the public would have to understand that a diagnosis of "total brain failure" is not actually death, but that it counts as being legally dead and makes vital organ donation appropriate because it is a state in which there is no chance of recovery of consciousness and the ability to interact with others.[150] It may make sense to give people different options for organ donation based on states that they may find themselves in. Organ donor cards could have checkboxes that have options where some people would only elect to have their organs donated if they had experienced total brain failure, and others would like to

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[149] Kolata, *supra* note 142 (explaining that the Cleveland Clinic contemplated revising their DCDD protocol and abandoned this proposal after a prosecutor began investigating the situation).

[150] This approach may raise difficulties for the "check box" method of choosing to be an organ donor well in advance, such as when people make the choice to be an organ donor as they receive their drivers' licenses. Unless there was sufficient public transparency about the nature of brain death, individuals would have to be given information about the choice they are making at the time they are asked.

donate their organs only if a certain amount of time had passed after the cessation of circulatory function. The current use of unacknowledged legal fictions raises significant concerns about subverting democratic deliberation or obtaining organs from people without their full informed consent. By contrast, the use of a widely-understood and transparent legal fiction is far less troubling.

Our hope is that this fiction may serve as a necessary intermediate step to allow the law to move forward, or function as "scaffolding" for the law.[151] For instance, in Ancient Rome, foreigners were initially not subject to Roman law. To integrate foreigners into society and ensure that lawlessness was not encouraged by the presence of non-citizens, judges were instructed to treat foreigners as if they were citizens. What was notable is that this legal fiction was out in the open, and created a transparent solution where the law applied to foreigners and citizens alike.[152] In Rome, the scaffolding provided adequate support for the law to grow in a new and important direction, and this would hopefully be true of legal fictions used in the determination of death context today, if these fictions are acknowledged.

Like a move towards complete transparency, treating both the determination of death in the context of vital organ donation and the dead donor rule as legal fictions is not without costs. This approach could undermine social support for termination of life support and organ donation for people who have experienced total brain failure. One interesting thing to note here is that the public is comfortable with legal fictions, and several legal fictions are widely known to be untrue (or are patently false). The public also seems able to distinguish "brain death" from death,[153] and appears, to a large extent, to treat these two categories differently. These facts provide some reassurance that the fear of significant costs as a result of using a legal fiction may not materialize. The social processes that would be involved in this transformation may have already begun. Scholars, journalists, and clinicians have begun to describe the "brain death" criterion in ways that suggest a movement from an unacknowledged to a transparent legal fiction. As awareness and transparency of "brain death" as a legal fiction spreads, provided that enough consensus builds in the field, eventually the truth underlying this legal fiction may be endorsed by courts and/or legislatures.

B. What to do about DCDD

Identifying an accurate definition of death that will allow for organ transplantation seems elusive with regard to neurological death, but relatively easy with respect to DCDD. Erring on the side of caution for DCDD, we could permit organ transplantation only from bodies that are clearly dead by waiting ten to twenty minutes before organ transplantation to ensure that cessation of circulation has occurred and is irreversible in the strictest sense. This alternative has considerable costs, however, and does not seem warranted. It would inevitably result in significant loss of organs that could

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[151] Fuller, *supra* note 88, at 70.

[152] Harmon, *supra* note 88, at 13.

[153] *See* James M. Dubois & Tracy Schmidt, *Does the Public Support Organ Donation Using Higher Brain-Death Criteria*?, 14 J. Clinical Ethics 26, 33 (2003).

be used to save the lives of others, and would not adequately respect the wishes of those who wish to stop receiving treatment and to donate their organs to others.

Moreover, because there is a plausible legal interpretation of "irreversibility" that could be used as an anticipatory fiction to justify physicians waiting fewer than ten to twenty minutes after asystole, it is not clear that this approach is legally required. Patient-donors under DCDD protocols will inevitably die within a few minutes after their hearts have stopped beating. Although resuscitative measures might be successful in restoring circulation, making it unclear whether they are actually dead at the time they are declared dead, they or their families have made valid prior decisions to refuse both treatment and CPR. In this situation, they have no interests that would be set back by procuring vital organs in anticipation of their death, making them as good as dead. More specifically, we contend that once a person has decided that she (1) retains no interest in remaining alive; (2) would like her therapy withdrawn; and (3) would like to donate her organs is not harmed by serving as an organ donor.

Of course, it is important to consider whether there are other interests at stake that may lead to harm. One possible harm is if the procedure of organ removal from people who are not dead would cause suffering. However, the risks of this harm could easily be minimized, if not eliminated, by the use of anesthesia and palliative care. Notwithstanding the fact that people who donate organs under these circumstances are neither harmed nor wronged, current practices of DCDD do rely on an unacknowledged anticipatory legal fiction. The argument for making this legal fiction transparent in the case of "brain death" also holds for DCDD.

One open question is whether the current approach of using an anticipatory legal fiction could justify removing organs in even shorter periods of time after asystole (or even no time at all) for controlled DCDD and/or uncontrolled DCDD. The physicians who developed the Pittsburgh protocol pushed the boundaries to less than two minutes, and other physicians may push them even further. It is possible that the current approach could eventually lead to withdrawing organs from people who have not been declared dead under circulatory criteria, but who do not wish for further treatment and do wish to donate their organs. Although this progression may be justifiable on ethical grounds, there may be good reasons to draw a line that prevents us from reaching this destination by means of relying on the anticipatory legal fiction alone. Through a process of democratic deliberation, we may reach a point where the dead donor rule no longer seems necessary. We are not there yet, however, and a legal fiction should not be employed to conceal such a dramatic, important, and value-laden policy decision. It seems important to reach the outcome of allowing organ donation from those who have made the choice to withdraw or refuse treatment and the choice to donate in an open and forthright manner,[154] which a legal fiction approach could not fully accomplish. Nevertheless, the legal fictions approach that we

[154] Again, consent for organ donation would have to be informed about the legal fiction operating in DCDD for such consent to be valid, and this may complicate the way that consent is currently obtained.

recommend preserves the dead donor rule only as a fictive legal norm—not as a factual requirement of death as a precondition for vital organ donation.

V. OBJECTIONS TO OUR PROPOSAL

One objection to our proposal is that a legal fictions approach towards "brain death" is "a pseudo-rationale." Shewmon characterizes this approach as "utilitarianism," explaining that "'brain death' is a legal fiction invented to legitimize the transplantation of vital organs that would otherwise be wasted."[155] Our approach would be a pseudo-rationale if it were intended to give the impression that "brain death" constitutes death as a matter of fact. It is important to emphasize that acknowledging these legal fictions is a justifiable policy only if there is a sound ethical rationale for procuring vital organs from still-living patients. Otherwise, we would be acknowledging an unjustified distortion of the truth—a fairly disturbing prospect for the law. Rather, the intent of the approach that we advance is to treat "brain death" as legal death, while making it clear that "brain death" is not the same as death. The rationale for this is, in some sense, utilitarian, in that it underwrites social benefits from vital organ transplantation. But, it is not "utilitarian" in the sense of being merely socially expedient without regard to protecting the rights and well-being of vulnerable patients. In other words, we do not think that the harms being visited on some are justified in terms of gains to others.

Instead, when vital organ donation is limited to patients diagnosed as "brain dead" and to those with prior plans to withdraw life support, and when valid consent has been obtained for organ donation, it is hard to understand how one could be treated merely as a means to save the life of another. Obtaining an individual's valid consent, or a surrogate's substituted judgment, for organ donation ensures that the individual endorses the end she is serving.[156] Hence, the legal fictions approach that we defend is ethically justifiable because it respects the choices of patients or their surrogates, and no harm is done to patient-donors under these conditions. The legal fictions approach treats such donors as dead in the eyes of the law, but this does not attempt to make legitimate what would otherwise be illegitimate. Rather, this approach brings the ethically justified practice of vital organ donation into harmony with the law, given the established norms of the dead donor rule and criminal homicide. In other words, because the former norm is difficult to

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[155] D. Alan Shewmon, *Recovery from "Brain Death": A Neurologist's Apologia*, 64 LINACRE Q. 30, 42 (1997).

[156] There may be cases in which individuals have not previously expressed their preferences in writing through an advance directive, and it is not immediately apparent what the patient's preferences would be. Although states vary on whether surrogates, without evidence of the patient's wishes, should use the substituted judgment standard or best interests standard (or some combination of the two), the Uniform Health Care Decisions Act provides that a surrogate should make decisions based on the patient's instructions or expressed wishes. Barring that, the surrogate should consider the patient's best interests, which includes considering the patient's values. *See* Nina A. Kohn & Jeremy A. Blumenthal, *Designating Health Care Decisionmakers for Patients Without Advance Directives: A Psychological Critique*, 42 GA. L. REV. 979, 986-87 (2008). To the extent that our suggested approach relies heavily on the donor's consent to withdraw treatment and recover organs, it may require using relatively high evidentiary standards for surrogate decision-making based on the patient's values and preferences.

abandon and the latter is difficult to modify, the legal fictions approach constitutes a useful heuristic device to reconcile the facts regarding our current organ procurement practices with the law. Absent the legal fiction, these established legal norms would preclude or greatly curtail the ethically justified practice of vital organ donation.

Others may criticize our legal fictions approach because they view legal fictions pejoratively as merely expedient or see them negatively because they are fictions. We contend that even maintaining the status quo, however, requires relying on *unacknowledged* legal fictions. Vital organs are being procured from patient-donors who are still living or at least not known to be dead. This means that an important question is before us: what is the best way for the law to approach this practice in light of the facts regarding the status of vital organ donors? As we have argued, vital organ donation without the dead donor rule is ethically justifiable but would require large-scale legal change, including modifying homicide laws such that transplant surgeons would not be liable for criminal homicide by virtue of their causing the deaths of patient-donors. Weighing and balancing the different ways to harmonize the law with ongoing, ethically justifiable clinical practice requires assessing the practical advantages and disadvantages of alternative policy strategies. In assessing various ways of modifying the law, expedience is an entirely relevant consideration. The leading alternatives to a legal fictions approach are: prohibiting or drastically curtailing vital organ transplantation, pushing through significant and difficult legal changes in order to continue the current practice of vital organ transplantation, or merely preserving the unacknowledged legal fictions we have now. In light of these options, a transparent legal fictions approach deserves serious consideration as a pragmatic compromise. The legal fictions approach is clearly less than ideal. No matter how transparent it becomes, the use of fictions in the law involves at least an element of sleight of hand—the law declares states of affairs to be different than they are in fact. Unlike our current approach to determining death, however, it is sleight of hand that is out in the open.

Of course, there are some dangers to allowing legal fictions to persist that are important to recognize and address. For instance, Fuller argues that law should be cleansed of fictions as soon as they are no longer necessary, because they involve reasoning by analogy, which can lead to errors in thinking.[157] The problem is that "inaccurate language can so easily change our substantive views about what is natural or what is right."[158] Slippery slope concerns may arise when a fiction can be borrowed too easily from one area of the law and used in another. For instance, Louise Harmon has argued that the idea that a previously competent person's substituted judgment can be determined by courts, particularly without much reference to the person's actual stated wishes, is a legal fiction. She further claims that although it was relatively unproblematic when used to justify transfers of wealth, it has been inappropriately borrowed by other courts to justify organ donation by, or sterilization of, people who were never competent.[159] On her view, legal fictions can be dangerous if they have the potential to encourage other courts

[157] *See* FULLER, *supra* note 88, at 69-70.
[158] Bix, *supra* note 85, at 20.
[159] Harmon, *supra* note 88, at 63.

to make larger, less justified leaps away from the truth in a context where that move is more dangerous or problematic.[160]

Although legal fictions can be especially useful when they track our commonsense understanding of how to treat a given situation and maintain conceptual consistency and transparency when changes in the law are unlikely to happen soon, there are examples of legal fictions distorting the contours of the law in just the way commentators have worried about. In a recent Supreme Court case, *Citizens United*, the Supreme Court dramatically extended the political rights of corporations.[161] Some have characterized the decision as polarizing and an example of judicial overreaching, while others have given it high praise for preventing the government from regulating speech based on the identity of the speaker.[162] What has been less discussed is the role that a legal fiction played in allowing the Court to render its opinion.[163] We would argue that, depending on the relevant theory underlying the First Amendment protection of freedom of speech, the existence of the legal fiction made a decision that might otherwise have been difficult to justify seem like a more natural extension of the law.

In *Citizens United*, the Supreme Court addressed the constitutional limitations on regulation of political speech by corporations. The majority opinion in the case often implies that corporations and individual persons should be treated similarly with respect to the regulation of their political speech, notwithstanding the obvious differences between corporations and individuals.[164] The fiction that a corporation is a person is a device or analogy used to determine what law to apply to corporations only in circumstances where the analogy is useful. Questions about whether a court has jurisdiction over a corporation can then be resolved in the same way that those questions would be resolved for persons—based on where they live. On the other hand, an executive who mismanaged a corporation and ran it into the ground would never be criminally charged for murdering that corporation.

One important distinction between corporations and people neglected in *Citizens United* is that corporations are owned by shareholders, and run by management. When a person engages in political speech, we are not worried that his subparts (organs or personalities, as the case may be) will disagree with his stated opinion. Shareholders may have very diverse political views, and their First Amendment interests will not necessarily be served by allowing

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[160] *See id.* at 63.

[161] Citizens United v. Fed. Election Comm'n, 130 S.Ct. 876, 913 (2010).

[162] *See, e.g.*, Jeffrey Rosen, *Roberts Versus Roberts*, NEW REPUBLIC, Mar. 11, 2010, at 17; Ronald Dworkin, *The "Devastating" Decision*, N.Y. REVIEW OF BOOKS (Feb. 25, 2010), http://www.nybooks.com/articles/archives/2010/feb/25/the-devastating-decision/; President Barack Obama, State of the Union Address (Jan. 10, 2010), *available at* http://www.whitehouse.gov/the-press-office/remarks-president-state-union-address.

[163] *See* Ruth Marcus, *The High Court's Shoddy Scholarship*, WASH. POST, Jan. 23, 2010, at A13 (with regard to the use of the legal fiction by the majority, stating only that "in the face of logic and history, the majority acted as if there could be no constitutional distinction between a corporation and a human being. Untrue. The Supreme Court has long held that corporations are considered 'persons' under the Constitution and are therefore entitled to its protections. For more than a century, Congress has barred corporations from making direct contributions to political candidates, with no suggestion that it must treat corporate persons the same as real ones; that prohibition stands, at least for now.").

[164] *See Citizens United*, 130 S. Ct. at 896-97, 899-900.

corporations to speak because that speech will be mediated through the corporate managers.[165] The dissent also notes that corporations can be owned by people who are not U.S. citizens.[166] Therefore, this decision allows non-citizens who own corporations to be able to contribute to political campaigns. Ordinary non-citizens do not have that privilege. The majority in *Citizens United* does not address these important differences between corporations and people.

Additionally, some reasons for strong First Amendment protection of individual political speech do not completely extend to corporations. For instance, one explanation the Court gives for this ruling is to prevent "censorship to control thought" because "[t]he First Amendment confirms the freedom to think for ourselves."[167] Although corporations may have opinions or corporate cultures, it is more strange to imagine a corporation—not just individuals within that corporation—thinking. Perhaps one approach would be to say that corporations think when they engage in strategic decision-making. Even if that were the case, it is not clear that the freedom to fully engage in strategic decision-making, including using corporate funds to influence political campaigns, is as worthy of protection as the freedom of thought that each individual needs in order to participate in a democracy.[168]

The implications of this decision illustrate other problems with extending the legal fiction. The dissent rightly points out that the implications of this ruling could be that corporations should have other political rights, like the right to vote. At the least, the majority's reasoning should have elucidated a principle that explains when corporate political rights should be extended and when they should not, to avoid the absurd implication that corporations should have the right to vote in elections. This case illustrates that it may be wise to delineate the limits of a legal fiction in relying on it to make changes in the law.

Most legal fictions raise concerns because they take the law one step away from the truth, and could lead the law even further astray in the long run. The correct limits of the fiction need to be clear, and each time the fiction is extended this extension should be thought through and justified. Otherwise, an incorrect use of the fiction, like the analogy that a corporation is a person, can distort the law. One commentator noted the following:

> The more pervasive and autonomic is the legal fiction . . . the more difficult it becomes to overcome the unconscious tendency to regard the fiction as truth. Indeed, it is that very tendency that makes the fiction of corporate legal personhood so useful and enduring.

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[165] *See* First Nat'l Bank of Bos. v. Bellotti, 435 U.S. 765, 804-05 (1978) (White, J., dissenting) ("[W]hat some have considered to be the principal function of the First Amendment, the use of communication as a means of self-expression, self-realization, and self-fulfillment, is not at all furthered by corporate speech . . . . Shareholders in such entities do not share a common set of political or social views . . . .").

[166] *Citizens United*, 130 S. Ct. at 947-48 (Stevens, J., concurring in part and dissenting in part).

[167] *Id.* at 908. How a corporation thinks, exactly, is not clear.

[168] *Bellotti*, 435 U.S. at 804-05 (White, J., dissenting).

> Thinking and speaking of a "corporation"—an abstraction representing a multitude of complex relationships—as if it were a real person, rather than speaking and thinking in terms of the Byzantine relationships implicated by anything a corporation "does," is a nearly indispensable simplifying convention.[169]

Legal fictions that are insufficiently transparent and persist for long periods of time, however, may make it more likely that logical fallacies may begin to pollute our understanding of the concept. Transparency makes legal fictions less of a threat to the coherence of the law because then they do not conceal the truth of the matter or the purpose behind the fiction, but transparency does not eliminate their potential for misuse. If courts recognize that the purpose of the fiction does not apply to a particular case, suspending the fiction is always an option. Yet, even transparent legal fictions can be abused if the analogies that underlie them are extended in a way that subvert or illegitimately transcend the policy context that justifies such legal fictions.

It is our hope that if the existing legal fictions being used in the determination of death are acknowledged, they can give recognition (but not full transparency) to the normative appropriateness of permitting vital organ donation from some classes of patients who in fact are still alive or not known to be dead. When valid consent for donation is provided, no harm or wrong is done to these patient-donors, and life-saving transplantations become possible by procuring vital organs from them. Appeal to transparent legal fictions is useful in preserving the practice of vital organ transplantation without the need to formally abandon the dead donor rule and to change the homicide laws. Moving from the unacknowledged to transparent legal fictions also is desirable in that it promotes bringing the reality of vital organ transplantation into the light of day, instead of concealing the normative choices involved in this practice. Ultimately, it may (and should) be a step in the direction of more honestly facing the ethical justification for vital organ transplantation without any need for nominal appeal to the dead donor rule.

Patients who are diagnosed as "brain dead" and patients participating in DCDD protocols have different ways of being "as good as dead" that correspond closely with the two types of legal fictions at stake in determinations of death: the status fiction of "brain death" and the anticipatory fiction of DCDD. "Brain dead" patients are "as good as dead" because they are known to have irreversibly lost the capacity for consciousness and have a very poor prognosis. They do not respond with awareness to stimuli and therefore have no possibility of experiencing their environment or interacting with others.[170] Hence, they have no interest in continuing such an existence, and no harm or wrong is done to them by procuring vital organs before stopping life-sustaining treatment. In other words, they are "as good as dead" by virtue of their status.

Patient-donors under DCDD protocols within a few minutes after their hearts have stopped beating are irreversibly on a path to death, based on the decisions that they or their families have made.[171] Doctors cannot legally or

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[169] Ralph Brubaker, *Taking Exception to the New Corporate Discharge Exceptions*, 13 AM. BANKR. INST. L. REV. 757, 759 (2005).

[170] *See supra* Part II.A.

[171] *See supra* Parts II.B, III.C.

ethically attempt to resuscitate these patients,[172] and the patients' interests will not be set back by procuring vital organs in anticipation of their death. Because these patients are in circumstances in which it would be reasonable to anticipate their imminent death, they are "as good as dead." In both "brain death" and DCDD, it is reasonable for the law to treat them as dead with these types of legal fictions.

If appropriately constrained, legal fictions may be particularly useful within a pluralistic society like ours. Within a pluralistic society, different ways of understanding matters of life and death must be tolerated. A transparent legal fictions approach can be seen as one way of understanding the current practice of vital organ donation. Employing a legal fiction about the determination of death permits the law to be coherent. Particularly if we think people's views about death should be accommodated, as New York[173] and New Jersey[174] do, then we might think that there should be room for different definitions of death by religious and conscientious objectors. If we understand the existing standards for determining death to reflect the facts about organ donors being dead, it seems like the law is accommodating views that are false for strange reasons. If we accommodate different views about death but the law claims only that the determination of death in the case of vital organ transplantation is a legal fiction, then there is greater coherence in the law. The determination of death is set by virtue of a policy choice, but it does not mean that someone with total brain failure is actually dead.

In other words, the application of the law does not require that the truth of death is established and universally endorsed, but that certain circumstances be treated as sufficient to determine the eligibility of patients for vital organ donation. The law about the determination of death would not establish or even have to consider the truth about death. Under this approach, then, those who insist that vital organ donors must be dead in fact as well as legally dead are free to understand individuals diagnosed as "brain dead" as actually being dead under some definition of death. Others who regard these individuals as biologically alive will justify procuring vital organs from these donors on the grounds that they are legally dead and that no harm or wrong is done to them when they or their authorized surrogates have decided to donate their organs. Still others might decide that these individuals are alive and that organs should not be taken from them, and will refuse to consent to organ donation for themselves or their families on that basis. Similarly, with the practice of DCDD, some can interpret these donors as dead in fact as well as legally dead when death is declared a few minutes after their hearts have stopped beating. Others can take the stance that we do not know that they are dead at this point but that they can be considered legally dead; and, it is legitimate to procure organs also on the grounds that no harm or wrong is done to these individuals, given valid decisions to stop life-sustaining treatment and donate organs.

Such a pluralistic approach to the status quo will not satisfy everyone. Some will believe that "brain dead" individuals are not in fact dead and that therefore they should not be used as organ donors because doing so is

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[172] *See supra* Part II.B.
[173] *See* N.Y. STATE DEP'T OF HEALTH, *supra* note 20.
[174] *See* N.J. STAT. ANN. § 26:6A-7 (West 2007).

wrongfully killing them. They remain free to choose not to become organ donors themselves should they become "brain dead" and not to authorize organ transplantation for family members who have not chosen to donate in the event of a determination of "brain death." Yet they may still be morally opposed to the legal practice of vital organ transplantation from "brain dead" donors. They are essentially in the same position as those who decry the legal practice of abortion as murder. In any case, all can recognize the law as a common normative standard for governing society, even when the law permits practices that some regard as immoral. In sum, the legal fictions approach to vital organ transplantation contributes to pluralistic understandings of our current practices, notwithstanding the fact that ethical disagreement over these practices is likely to continue.

VI. CONCLUSION

The goal of this paper is to contribute to a legal conversation about problems posed by vital organ transplantation, the role of unacknowledged legal fictions in the status quo, and the potential use of transparent legal fictions in the future development of legal policy in this arena. If one takes a close, honest, and open look at our current practices in this domain, there is no escaping the fact that the situation is conceptually and perhaps even politically unstable, and reform is necessary. There may be more careful or clever solutions than the ones we have proposed here, and we would welcome any efforts to find them. Whatever the best solution to this problem ends up being, we are convinced that continuing to hide our standards for determining death behind unacknowledged and poorly-disguised legal fictions will not be sustainable for long.

The legal fictions approach that we recommend as a practical policy choice is a compromise that is less than satisfactory; it provides a way to preserve the legality of practices that are, in fact, incompatible with other established legal norms. The problem, however, rests with those other norms, not the practices of vital organ donation. The legal fictions approach is, therefore, theoretically deficient in comparison with a more transparent ethical and legal approach that abandons the dead donor rule. On the other hand, it is a convenient and plausible way to avoid the socially and ethically deleterious alternative of prohibiting or drastically limiting vital organ transplantation so as to uphold the dead donor rule.

It is possible that treating the current standards for determining death and the dead donor rule as transparent legal fictions, as we have advocated, could be politically manipulated. Just as critics of health care reform have called the Obama administration's attempt to systematize end-of-life planning tantamount to the creation of "death panels,"[175] there may be concerns that allowing vital organ donation from individuals who in fact are alive (or not known to be dead) could be similarly manipulated by others for political ends. Although there is clear reason to worry about the ability of political debates to overwhelm the gains that have been made in transplantation, it is dangerous to use concern about political maneuvering of the truth as a justification to

[175] David Barstow, *Lighting a Fuse for Rebellion on the Right*, N.Y. TIMES, Feb. 16, 2010, at A1.

subvert the democratic process. Under this logic, why should the public know anything about potentially controversial topics? Although there is a variety of ways to approach the status quo of vital organ donation, our standards for determining death in the context of organ transplantation and the dead donor rule can be understood as legal fictions that move the policy debate in the right direction. While not without its dangers, this approach will produce greater transparency and forthrightness about questions that should not be left in the dark.

This paper also sheds some light on and illustrates the need for a more robust theory of legal fictions. Different types of legal fictions have different properties, and these properties may make them more or less useful and more or less dangerous. Instead of reflexively thinking that legal fictions are harmful to the truth and should not be allowed to pollute the law, or concluding that legal fictions are a necessary evil, we should think more carefully and systematically about the various types of legal fictions and the advantages and disadvantages of deploying them. Somewhat paradoxically, there may be times when the best way to handle the truth is to rely on transparent legal fictions.

TABLE 1: CATEGORIES OF LEGAL FICTIONS

TYPE OF FICTION	ANALOGICAL REASONING USED	EXAMPLES	RATIONALE/ UTILITY	DANGERS
BRIGHT LINE	Treat A as if it were B because it's difficult to distinguish all cases of A from B.	Adulthood Legal blindness	Administrability - much easier to create and administer a blanket rule to cover both A and B than to distinguish cases of A from B	Under- and over-inclusive
ANTICIPATORY	A will imminently become B	Anticipatory breach DCDD	Preventing harm- if we wait for A to get all the way to B, significant harm will result	Creating conceptual confusion between A and B Inappropriate extension of the fiction into new areas
STATUS	A and B are clearly different, but are similar in certain ways	Corporation is a person "Whole brain death"	Expanding capability of existing law- eliminates need to reinvent the wheel because the similarities between A & B make it sensible to use the same law to cover both	Analogy may be extended too far Presence of explicit falsity may signal that the truth is not important for the law