THE ROLE OF DEATH IN THE MORAL PERMISSIBILITY OF SOLID ORGAN PROCUREMENT AFTER CARDIAC DEATH AND ITS IMPLICATIONS

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ABSTRACT

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"Donation after cardiac death" is the practice of procuring multiple vital organs from patients who are declared dead through cardiopulmonary criteria. While the procedure is widely deemed morally permissible and desirable, it has not enjoyed a sound moral justification for its practice. Most moral defenses of it rely upon the assumptions that it is permissible to procure organs from dead patients, the "dead donor rule", and that the donors are dead, but the patients are not dead by any reasonable criteria, and thus violate the rule. I maintain that the dead donor rule ought to be abandoned because it would prevent what are otherwise clearly morally permissible procurements such as these.

Some have argued that a prognosis of immediate death captures the apparent moral value of death in these cases, but using the prognosis of death in this analysis is just as problematic as using death. Additionally, I argue that the fact that organ donors are killed *by* organ procurement is morally irrelevant to whether or not such procurements are morally permissible, which further supports abandoning the dead donor rule. What appears to be the primary concern for proponents of the dead donor rule is a desire that donors not be killed *for* their organs. However, terminating patients for their organs is not a serious moral problem and is a necessary reality of organ procurement, as donors are terminated at a specific time in order to procure their organs.

I maintain that donation after cardiac death is permissible because it upholds the principles of respect for persons and nonmaleficence, the two primary guiding principles in American bioethics, and not *merely* because the patients are dead or imminently dying. These

principles can be readily upheld when patients are dying and have properly consented to be organ donors. Although my analysis is primarily moral, there are policy implications that should follow from my analysis, primarily that donation after cardiac death ought to continue, the dead donor rule ought to be abandoned, organs ought to be taken earlier in the dying process, and the donor pool ought to be expanded.

Dedicated to:

My wife Jenny for her unending support

My children for providing me with the motivation to complete this project

My parents for allowing me to “squander” my education in the sciences

My friend Brad Gabbard for making everyone’s life better

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CHAPTER I: INTRODUCTION

The Necessity of Morally Permissible Organ Procurement

Vital organ transplantation has saved and improved many lives. Unfortunately, vital organs are in short supply and 18 people die on average per day waiting for an organ transplant, according to the United Network for Organ Sharing (UNOS), the body that oversees and tracks all vital organ transplantation in the United States (UNOS, 2013). Vital organs are thus an extremely valuable commodity whose availability we ought to maximize by ensuring that we obtain as many viable organs as possible. Yet we cannot simply harvest organs from anyone any time we need them, so we ought to procure them in the most effective medical fashion that is morally permissible. Unfortunately, many of the current restrictions on organ procurement are misguided and enjoy opaque and weak ethical justifications. The current prevailing attitudes toward when organs can be harvested are unnecessarily restrictive in classifying which patients may be organ donors and in specifying when organs may be procured from these patients, resulting in fewer viable organs. If morally and medically possible, we need to get more organs immediately. There are limits to what people can donate and continue to live normal, healthy lives, so obtaining more organs from dead or dying patients is the only option for increasing the vital organ supply in the immediate future, as xenotransplantation and artificial organs are years away from being viable (Pierson, 2009; Mitamura & Murabayashi 2010).

According to the Organ Procurement and Transplantation Network (OPTN), there are roughly 12,000 deaths eligible for donation each year (based on OPTN data, 2013). If every one of these deaths had organs transplanted at the average rate of three per death, and organs were procured at the rate of one per living donor with roughly 6,500 living donors, only 42,500 organs

would have been transplanted – less than half of the 118,000 desired. This is also less than the approximately 50,000 new organs that are needed each year. There is a clear organ shortage under current policies. However, supplies could be increased by, for example, expanding the donor pool to include patients with amyotrophic lateral sclerosis (ALS, also known as Lou Gehrig's Disease), who are often unable to donate organs at the time of death. This could increase the donor pool by up to 5000 patients each year (ALS Association, 2013). Allowing for procurements earlier in the dying process would help combat the loss of organs due to anoxia, or lack of oxygen, when circulation stops in cases of donation after cardiac death (DCD, also called non-heart-beating organ donation, NHBD). Anoxia results in roughly one-fifth of the procured kidneys and more than half of the procured pancreases being discarded (Morrissey, 2012). However, the general attitude towards donors is that they must be dead or extremely close to it, as best evidenced by the "dead donor rule" (DDR) and its champions, including James Bernat (2006; 2008) and John Lizza (2005). Though the origins of the DDR are unclear, it grew out of a general sentiment that donors must be dead before their organs can be taken (Arnold & Youngner, 1993). Removing multiple vital organs from a living individual will almost certainly end that person's life, and it is a very natural intuition to think that we should abstain from a procedure that would end one person's life to save the life of another.

In waiting until a patient is dead before taking organs, we can generally ensure that the patient will come to no harm nor be killed through organ removal, assuming the previously living person or an acceptable surrogate has consented. However, waiting until death risks the health of the organs. In an ideal scenario, the donor is as close to organic life as possible when the organs are removed for transplant and the organs are transplanted as quickly as possible upon removal. This is what happens in organ transplants involving brain-dead donors, whose organs

can be cared for and perfused with oxygen up until their removal, granting them a much higher rate of viability (McKeown, 2012). Attempting to parallel these conditions in cases of cardiac death would necessitate that the patients have a beating heart and be alive by virtually any use of the term (assuming that they are not already also brain-dead).

Although the DDR is generally assumed to be the standard guide for organ procurement protocols, there is much disagreement about what it means to implement it as well as whether it should be maintained, abandoned, or modified. James Bernat, a long-time supporter of the DDR, describes it as "the ethical axiom of procuring multiple vital organs which requires that the donor of multiple vital organs must first be dead" (Bernat, 2006, p. 128). However, it is often understood to mean that "no person can be killed in order to harvest organs" (Khushf, 2010), which is technically a different rule, as Bernat's historically accurate description of the DDR can allow for killing, so long as the patient dies before the organs are taken. Despite these different interpretations, most scholars appear to opt for something more like a "Close to Dead Donor Rule" (CDDR). Under the CDDR, it is not required that patients actually be dead, but rather that they are dying and very close to death, although being dead would also fulfill these criteria. Whether removing organs from patients in these conditions is considered killing is a different issue.

The CDDR appears to be the actual rule many want. This is because it is generally recognized that donors declared dead by cardiovascular criteria might not actually be in a condition that ought to be considered "death," but many assert that this does not make the harvesting of organs impermissible. Some have argued for a reconsideration of one or more concepts associated with organ procurement, particularly "death," "dying," "permanency," and "irreversibility" (Cole 1992; Lizza 2005; Bernat 2006). Some have discussed the idea that death

can be understood to specifically include traditional cardiac death donors under current protocols (Cole 1992; Veatch, 2003), but many have argued that although these patients are not dead, they are in a state close enough to death that procurement is permitted: for example, Bernat's (2006) contention that a declaration of death can be made and that this declaration is what is morally necessary. It could also be that the condition of the donors leads directly to their status as organ candidates, as Robert D. Truog and his colleagues maintain (Truog & Cochrane 2006; Truog & Miller 2008). There are those who genuinely want to require organ donors to be dead, most notably Robert Veatch (Veatch, 1999; 2008); this could, in their minds, require ending procurements from some donors under current practices. There are also those who desire to retain the DDR as it is currently applied (Khushf, 2010). The CDDR or a stronger rule thus captures most of the views on the role that death plays in the permissibility of cadaveric organ donation. I will argue that the CDDR (and DDR) are unnecessarily restrictive and ought not to guide procurement protocols.

While the CDDR appears to make sense as a moral guide, the principles that motivate it will be able to stand on their own to justify organ procurement without requiring such a rule. I maintain that it is permissible to take multiple vital organs from an individual when the donor is respected in accord with the principle of respect for persons and not harmed in accord with the principle of nonmaleficence, the two primary guiding principles in American bioethics (Truog & Cochrane, 2006). When these two principles are appropriately upheld, an individual may choose to donate multiple vital organs for transplantation and doctors may permissibly procure them, even if a patient is not close to death. This has the additional benefit of severing the connections between organ procurement and the complex and controversial concept of death that unnecessarily complicates an already complicated moral issue. However, rules like the CDDR

might be practically helpful to use as guides for policy to help ensure that patients are not harmed and are properly respected. While my arguments will provide a solid foundation on which the CDDR can rest, it is important to note that it is conceptually possible to respect and not harm a person that is not dead, nor close to death, while removing multiple vital organs.

Despite my dismissals of the CDDR and DDR, the rules and the concept of death itself deserve discussion because they *do* attempt to capture the morally relevant considerations in organ procurements. The CDDR and its supporters certainly want to protect vulnerable individuals while allowing maximal organ procurement. But if this is the goal of the CDDR, why not directly determine the conditions that make it permissible to procure multiple vital organs from a single individual? I concede that if there were not an organ shortage, conservative restrictions on the donor pool would be acceptable. For example, requiring that a potential cardiac death donor have a do-not-resuscitate order (DNR), have consented to organ procurement, be facing imminent death, and have experienced sufficient loss of cardiopulmonary functions that he will, absent any intervention, die, would likely guarantee that neither disrespect nor harm comes to the patient. These requirements essentially constitute what many scholars, including Bernat and Truog, have been advocating. Yet, we need more organs and current policies cannot meet our organ needs. People are dying daily because they cannot get the organs they so desperately need. Because of this, it is imperative that we examine the policies and see if it is morally permissible to expand them.

My arguments are thus driven by this practical need for more organs, but my arguments don't require this practical concern to maintain their force. I propose to answer a simple question: When is it morally permissible to procure multiple vital organs from patients that are not brain dead? I will base my response in the two guiding principles of bioethics: respect for persons and

nonmaleficence. Taking an organ from a living person who wants to continue using should be almost always wrong, at the very least because the unwilling donor is severely harmed, and probably killed. I will assume the modest claim that the unwanted killing of innocents is very often morally wrong, despite possible consequentalist arguments to the contrary, because even an extreme Utilitarian could agree that killing often produces much unhappiness that speaks against the practice. Our rules for organ procurement should prohibit such actions and not allow patients to be wrongfully harmed through the procurement of their organs. Such harms can be easily avoided by adopting a patient-centered approach to determining the pool of organ donors, with focus given to the patient's desires and general well-being.

Although my project is primarily aimed at providing a sound ethical defense of organ procurement, and especially DCD, policy issues will inevitably be relevant. Two policy consequences would immediately result from my proposals. First, traditional cardiac death donors would not have to be declared dead before procurement, allowing organs to be taken from these patients much earlier in the dying process than is currently done. Second, the donor pool would be expanded to include patients who are not dead nor perhaps in a condition that closely resembles death, but are imminently, and somewhat immediately, dying, such as certain patients in the last stages of ALS or cystic fibrosis. The underlying reasons for these shifts will also suggest that a new class of multiple vital organ donors, aside from those that might be covered by the DDR or CDDR, who are not close to death (and might include some ALS patients) would emerge, which I will call "non-dying donors." Procurements from these patients would be justified based on a direct appeal to the principles of nonmaleficence and respect for persons, without an indirect appeal to the DDR or CDDR.

The most controversial part of my proposals will be allowing organs to be removed from those that might be neither dead nor dying. Of course, one way of resolving this issue is through constructing a system where everyone that we desire to be organ donors is actually declared dead. In theory, there is nothing wrong with this. However, stretching the definition of and criteria for death in this manner seems metaphysically disingenuous, and an argument would still need to be made as to why declaring these patients dead *makes* them donor candidates. It is more reasonable to maintain that the death of the donor signifies that the moral principles that justify procurement are upheld.

Public and Professional Confusion

There is great need for clarification in both the public and professional spheres with DCD, as was illustrated in the following case:

> Grappling with ethical questions about organ transplants, a San Luis Obispo jury on Thursday [December 18, 2008] acquitted a surgeon accused of trying to speed a potential donor's death. The case against Dr. Hootan Roozrokh, believed to be the first of its kind in the United States, was watched intensely by doctors and other professionals involved in transplant surgeries. Experts had feared that a conviction would turn away potential donors, their families and even some of the doctors who harvest organs…In a handwritten note read in court by San Luis Obispo Superior Court Judge Martin Tangeman, the jury said the case highlights the need for well-defined ethical standards in the transplant procedure known as 'donation after cardiac death.' (Chawkins, 2008)

The primary reason for the charges and the trial was that Dr. Roozrokh violated numerous medical protocols in performing duties that he, as the transplant surgeon, should not have performed. Although he did things he was not supposed to, and thereby violated hospital and

common medical protocols, he *did* perform them to the expected professional standards. The primary thing that I was interested in was the jury's reaction to the fact that Dr. Roozrokh prescribed medicines that accelerated the death of the potential donor, Ruben Navarro, a man with a debilitating neurological disease, in order to procure organs through DCD.

The article continues: "'[This case] certainly highlighted the potential of extreme problems that could occur without having the proper policies and procedures in place,' said Dr. John Fung, a Cleveland transplant surgeon who testified as a defense witness" (Chawkins, 2008). There are no universally implemented protocols for DCD, which compounds the difficulties in applying and using the practice. The "extreme problems" presented by this case are not merely technical issues with how hospitals obtain, procure, and transplant organs but also moral issues like *why* hospitals obtain organs in certain ways and when it is permissible to procure organs. I watched this case because the jury was going to rule on the issue of whether Dr. Roozrokh did something legally wrong in their eyes by the fact that he accelerated Mr. Navarro's death in order to procure his organs. They decided that, despite the general unpleasantness of the situation, he did not do anything legally wrong and commented that he had also not committed a serious moral wrong. The problems for Dr. Roozrokh stemmed from the fact that he was accelerating the death of Mr. Navarro. Dr. Roozrokh was accelerating his death because policies guided by the DDR required that Mr. Navarro be dead before his organs could be taken and a longer dying process decreases the likelihood of usable organs. Sadly, in this case, adhering to the DDR and waiting for organ retrieval resulted in all of the vital organs being unusable.

Aside from the fact that adhering to the DDR can result in the loss of organs, the DDR faces numerous conceptual issues that have led many to state that the DDR should be understood to function more like the CDDR. The DDR's problems are compounded by conceptual and

practical difficulties with the definition of, application of, and criteria for death. Of primary concern is that, under most reasonable definitions of death, most scholars agree that these donors are not dead (Gardiner & Sparrow, 2010). Although they are not dead, there is much that needs to be done to clarify exactly what it means to be dead and dying, as both D. Alan Shewmon (2010) and Kristin Zeiler (2009) illustrate through their discussions of pluralistic views on death. Clarifying death is necessary to understand what it means to be "as good as dead" (as Shewmon puts it) or "close to death" as described by the CDDR. There is, unsurprisingly, widespread disagreement on the course of action that should result from these issues: Bernat holds that the DDR should be maintained and that DCD patients should be an exception to the rule, while Truog and his colleagues argue that the DDR should be reexamined and possibly abandoned. Both approaches seem to support some version of a CDDR. Robert Veatch (2003; 2004; 2008) also agrees that DCD patients are not dead, but he argues that this means we must abandon organ procurement, as terminating a patient through the removal of vital organs is never permissible.

Bernat is an ardent supporter of the DDR because he believes that it captures the popular opinion on organ donation – that donors must actually be dead – and is, generally speaking, a very sound ethical principle. For Bernat, what makes DCD an acceptable violation of the DDR is that while the patients are not technically dead, there is no ethically significant difference between the procurement as it is currently done and how it would be done should the donor *actually* be dead. He maintains that patients do not need to be in an "irreversible" state, which is part of the definition of death that the Uniform Declaration of Death Act (UDDA) established in 1981, but only that the donors be in a "permanent" condition and will remain "dying" absent intervention. As Shewmon (2010) puts it, that the donors are "deceased" and "as good as dead" because they are "passing away" but are not "irreversibly" "deanimated."

Truog and Robinson (2003) give arguments for the same primary conclusion that it is not the death of the patient that matters in cases of DCD, but rather it is the prognosis of immediate death that is ethically important. Truog and Cochrane (2006) criticize Bernat's adoption of a shift to permanency because it would lead to the undesirable result of expanding the donor pool to patients that are fully conscious and aware but happen to be extremely close to death – something Bernat would reject. Truog and Cochrane give as an example an ALS patient who has his feeding tube removed. Presumably, such a healthier, although dying, patient should not be allowed to donate because the patient would be choosing to end his or her own life, the life of a conscious and aware individual, which is not the sort of donor that Bernat has in mind.

Truog and Cochrane, however, have no problem with accepting an expanded donor pool to include patients like those dying of ALS and off life-support, citing Truog and Robinson's (2003) arguments that upholding the principles of nonmaleficence and respect for persons can justify procurement. Truog and his colleagues, rather than stating that DCD is a permissible exception to the DDR, call for the DDR to be examined and potentially abandoned. If DCD is acceptable, and the patients are not dead, then cases that are not significantly ethically different from current cases of DCD should be permissible as well, even if the patient is clearly alive and conscious. However, Truog and his colleagues are adamant that such patients have certain prognoses that they will die immediately (presumably within a few days at most).

All that these authors have done is shift an important ethical criterion for organ procurement from the patient's death to the patient's prognosis of death – shifting from the DDR to the CDDR. They criticize their opponents for not stopping and examining the role of death in these situations, but they commit a similar folly: they do not examine and justify the ethical role of the prognosis of immediate death or being "as good as dead." Truog and Robinson state that their

guide for procurement "is based not on brain death and the dead-donor rule, but on the ethical principles of nonmaleficence…and respect for persons" (p. 2391). They place the requirement of prognosis of death in these two principles and explain why it is this prognosis, and not the actual death, that is ethically important. They then, however, separate the prognosis of death from these principles and claim it to be a third, and necessary, criterion for organ procurement.

However, in their criticism of advocates of the DDR, they claim that all that is required for an organ procurement to be permissible is that the two principles be upheld. They have hoist themselves with their own petard: the necessary role of the prognosis of immediate death has not been justified and should perhaps be disregarded should it conflict with two primarily important guiding principles – respect for persons and nonmaleficence. Their arguments lead them to "propose that individuals who desire to donate their organs who are either neurologically devastated or imminently dying should be allowed to donate their organs, without first being declared dead" (p. 2391). While this is a reasonable implication, imminent death would not necessarily be the only case in which the two primary principles are upheld. Yet, they continue their discussion as if it were the sole example. They state that "sometimes the harm of dying is sufficiently small that patients should be allowed to voluntarily accept that harm if it makes organ donation possible," (p. 2393) and that "clearly, some threshold [for sufficiently small harm from dying] must be set" (p. 2393). The implication is that a patient should be able to accept the harm from death if it is minimally small – and thereby not violate the principle of nonmaleficence. They then go on to set some guidelines:

> No healthy person should be allowed to make a suicidal donation of vital organs, even if such a person were fully competent and highly motivated to save the life of a loved one. Even less extreme donations should not be permitted, such as donation of a kidney from

> an individual with only one kidney, even if that individual willingly accepted the consequence of chronic hemodialysis." (Truog & Robinson, 2003, p. 2393)

But if the principles of nonmaleficence and respect for persons can be upheld in these cases, why prevent organ donations in these situations? It is unclear that such donations would necessarily violate either principle. The reason these patients should perhaps be prohibited from donating is because they are not imminently dying, the "hidden" requirement for Truog and Robinson. Yet, whatever moral work this imminent death is doing is already captured by the principles of nonmaleficence and respect for persons. These principles will ultimately be able to justify organ procurements from patients long before death is declared and even before the dying process has begun.

A Moral Defense of DCD Without the DDR

Although many individuals and groups maintain that DCD is a permissible practice that ought to be maintained, most importantly the Institute of Medicine (IOM) in its reports (1997; 2000) and the myriad of individuals and groups that S. D. James (2007) discusses, there is no consensus on precisely why it is a morally permissible practice that ought to be implemented. Furthermore, while there are plenty of defenses of the policies relating to DCD, there are no satisfactory defenses of the moral motivations for such protocols. As it stands, DCD is desired and deemed morally acceptable, but it is unclear exactly why we should maintain that it is a permissible practice that ought to be continued. The DDR and its defenses are the supposed basis for the moral grounding of DCD, but the DDR is rife with flaws and ought not be used as a moral guide for DCD. Instead, a direct appeal to fundamental moral principles will justify DCD and its reasonable exapnsion. In light of these points, I will make the following main argument in this work:

1. The fundamental principles of bioethics are "respect for persons" and "nonmaleficence" (broadly construed).
2. The DDR purports to guarantee that these fundamental principles will be respected in organ donation.
3. The DDR seems to render DCD morally impermissible.
4. The DDR relies on a deep conceptual vagueness about "death," and so doesn't have clear application conditions.
5. The DDR is ethically indefensible.
6. Because of (4) and (5), the DDR must be rejected.
7. Without the DDR (or any other principle) in place restricting it, the fundamental principles of bioethics imply that DCD is morally permissible.
8. If DCD is morally permissible, the benefits of DCD suggest that it ought to be implemented.
9. Thus, DCD is morally permissible and ought to be implemented.

(1) will be assumed as a fundamental aspect of American bioethics, whose widespread support is described by Truog and Cochrane (2006). I will begin by describing the DDR and its connection to DCD in Chapter II, in pursuit of defending (2), (3), and (4). The DDR itself has unclear historical origins, but the underlying sentiments that gave rise to it have a clear history and *prima facie* appear to be acceptable moral intuitions. However, there will be problems with defining death and determining appropriate criteria for declaring it that will create problems for implementing the DDR, most notably that cardiac death donors are not actually dead nor does it seem that they should be classified as dead, establishing (3). I will argue that any reasonable definition of death is unlikely to have its corresponding criteria met by a DCD donor. As DCD is

currently practiced, the donors do not appear to be dead by the current criteria for and interpretations of death and there is also little reason to maintain that they ought to be dead, point (4). Although (4) is not necessary to arrive at my final conclusion as (5) might be able to do the requisite work by itself, it is necessary to include (4) because so much of the literature focuses on the debate over the role of death in the DDR and my analysis would be incomplete without saying something about this debate. The fact that death is so problematic simply adds more reasons to accept the truth of (6). I will then elaborate on how these problems pushed many to argue for policies that align with the CDDR.

Chapter III will take on the DDR and establish the truth of (5) and start to illustrate that (6) ought to be accepted. I will examine whether there is something to be said for the requirement that organ donors should be dead before organs are procured as the DDR dictates. I argue that the DDR is justified neither in principle nor in practice. I use a thought experiment and a guiding assumption in the literature about the justification of moral principles to undermine the theoretical justification for the rule. I then offer two real world analogues to this thought experiment, voluntary active euthanasia and capital punishment, and argue that the moral permissibility of terminating any patient through the removal of vital organs cannot turn on whether the practice violates the DDR. Next, I consider practical justifications for the DDR, in particular whether there are compelling reasons to promulgate the rule despite its theoretical problems. I argue that there are no such reasons. In fact, I argue that promulgating the rule may actually decrease public trust in organ procurement procedures and medical institutions generally. Finally, I examine my case against the DDR in light of common arguments for it. I find that these arguments are often misplaced – they do not support the DDR. Instead, they support the quite different rule that patients should not be killed *for* their vital organs.

Chapter IV will continue the defense of (6), establish (7), and begin the process of illustrating why (8) and (9) should be accepted through describing why the practice of DCD is acceptable according to current moral standards and demonstrating why the prognosis of immediate death should not be a separate requirement for organ procurement (in addition to the fact that the donors need not be dead). Instead, I will argue that the principles that yielded the apparent importance of death and the prognosis of death, respect for persons and nonmaleficence, are sufficient for justifying the practice of DCD. DCD donors are in states very close to death, and this appears to be doing most of the moral work. Understanding the prognosis of death as performing this role also makes clear why death has been seen as such an important requirement for procurement: one need not worry about respecting an individual or harming her if she is dead. Death and prognoses of death are exemplary situations in which an organ donor can be respected and not harmed, but death and prognoses of death are not independently required for an organ procurement to be permissible. Additionally, the conceptual difficulties with death will no longer be relevant to determining when an individual may be a candidate for DCD, eliminating these types of issues from the debate. I will also argue that if DCD constitutes what might be termed "killing," then it constitutes a permissible case of termination.

Chapter V will conclude my work by drawing my arguments together and further establishing the truth of (8) and (9) and suggest how policies should be informed by my moral defense of DCD and organ procurement in general. The argument will be presented that, in general, death has moral importance only insofar as it is an expression of more important moral principles. When those moral principles are followed, it will be irrelevant to ask the further question of whether the individual is dead – if the death of the individual is relevant, it will have already been accounted for. The overall result is that it is not necessary to take death into

consideration as a necessary condition when determining the moral permissibility of procuring multiple vital organs. Ultimately my approach is founded on the same principles that contemporary defenses have utilized and does not result in a drastic change in the group from whom organs are procured or the time when they are procured. My approach has three important advantages over alternative defenses of DCD, especially those relying upon death and the DDR or the CDDR, as it offers a sound ethical justification for the procurement of multiple vital organs, for the expansion of the donor pool, and for procuring organs at specific times in order to maximize their likelihood of viability.

CHAPTER II: DEATH, THE DEAD DONOR RULE, AND DONATION AFTER CARDIAC DEATH

Introduction

In this chapter, I will give a brief history of the DDR and its relationship to DCD, highlighting the conceptual and practical issues with death and how these have impacted the debate over the permissibility of DCD. I will then lay out why DCD patients should not be considered dead and how this has pushed many to adopt a viewpoint in line with the CDDR.

The Dead Donor Rule

The "dead donor rule" is "the ethical axiom of procuring multiple vital organs which requires that the donor of multiple vital organs must first be dead" (Bernat, 2006, p. 128). John Roberston, the first to articulate it, has said that "organ retrieval itself cannot cause death. Removal of organs necessary for life prior to demise would violate the dead donor rule regardless of the condition or consent of the donor because removal of those organs would kill the donor" (Robertson, 1999, p. 6). Robert M. Arnold and Stuart J. Youngner give a brief account of the origins of the DDR:

> Although the term, dead donor rule, was first coined by John Robertson in 1988, it aptly describes an unwritten, uncodified standard that has guided organ procurement in the United States since the late 1960s (Robertson 1988). As DeVita et al. (1993) have noted, because of its informal nature, the reasons for it can only be inferred. There was undoubtedly discomfort with the isolated practice of taking kidneys from patients before they died following failed bypass surgery (Starzl 1992) because this appeared to violate health care professionals' admonition to "do no harm." More influential, perhaps, was the

> growing interest in severely brain-damaged (but heart-beating) patients as a promising donor source (Starzl 1992). By introducing "brain death," our society designated a subgroup of severely brain-damaged patients, those with loss of all brain functions, as an acceptable organ source. By simultaneously embracing the prohibitions of the dead donor rule, our society seemed to reassure itself that other severely compromised patients would be protected from harm— namely, they would not be killed or used as organ sources prior to their death. (Arnold & Youngner, 1993, p. 264)

Its historical origins and rise to prominence would no doubt be interesting to recount, but these details would bear little relevance to this work. For the tasks at hand, the theoretical origins and philosophical and ethical reasons that the DDR was allowed to take hold and rise to its exalted status are primarily important. Even if the DDR was a good rule and dictated by an appropriate authority, there would still be the need to understand why it is that people have held onto it for so long.

The DDR has intuitive appeal, and the primary reason to accept it stems from the belief in "the seemingly unassailable principle that it is wrong to kill (or cause the death of) an innocent person to save the life of another" (Miller & Truog, 2008, p.38). There is the serious worry that people might be killed for their organs, and the DDR presumably helps us explicitly avoid such actions. It is extremely likely that procuring multiple vital organs from any healthy individual will lead to death, and it certainly would seem to neither be desirable nor in accord with medical practice to kill living individuals *for* organs. Yet if the patients the organs are procured from are dead, then concern over killing the patient is no longer relevant. Hence, the DDR seems to restrict who we can take organs from to only dead patients so that living patients will not be killed for their organs.

The debates about the appropriateness of the DDR focus almost exclusively on one issue: Are donors (as we currently classify them) dead? This is a very crucial question if the DDR is to be used because, by the rule's own dictates, donors must be dead if we are to take their organs. Of course, one might simply say that donors, like DCD donors, are dead by definition. However, calling these donors dead simply because we have decided to classify them as dead is irresponsible. It is also disconcerting to label them as dead solely because we desire their organs and want to maintain the DDR. If DCD donors are to be declared dead there ought to be reasonable medical and philosophical justifications for declaring them dead that are more forceful than the alternatives.

Procurements from brain-dead patients have been historically permissible *because* the patients are dead and the DDR is not violated. Most patients are declared dead by the more traditional assessment of cardiopulmonary cessation, and when they can be donors without violating the DDR is not entirely clear. There is no specific standard for declaring death by cardiopulmonary cessation, but it is generally assumed that autoresuscitation is nearly impossible after approximately five minutes of cardiopulmonary cessation (so the condition is deemed "irreversible") and patients meeting this criterion can be declared dead, though whether this is medically sound is debated (Lynn, 1993). In fact, protocols often allow for declaration after as little as two minutes, and this difference in policies exemplifies the primary question for DCD in light of the DDR: When is the donor dead so that organs may be taken? I will discuss the basics of DCD before turning to the issues that death poses for it.

Donation After Cardiac Death

Since 1988, when the Organ Procurement and Transplantation Network (OPTN) began keeping track of organ transplantation data in the United States, more than 280,000 individuals

have donated organs. Of those donors, more than half were dead (based on OPTN data as of July 22, 2013). With the exception of kidneys, of which almost a third are procured from living donors, nearly all donated organs come from dead donors, though a majority of those come from brain-dead donors. There are currently around 118,000 patients in need of organs, but only slightly more than 27,000 organs have been transplanted per year on average from 2002-2012 (OPTN). There is a large and clear organ shortage and the list of patients needing a transplant increases by thousands each year. This organ shortage provides a strong motivation to continue to procure organs from DCD donors and, if possible, increase the number of viable organs obtained in that fashion.

DCD has become a standard part of medical practice and contributes a significant number of organs for use in transplantation, even though the number of organs procured in this manner pales in comparison to the number of organs obtained from living and brain-dead donors. DCD is, more importantly, the class of organ donors which is most readily and easily expandable. The amount of brain-dead organ donors is effectively out of our collective control, as people will either die in ways that lead to their classification as brain-dead or they will not. Living organ donation is severely limited because donations should not put the health of the donor seriously at risk, which means that donating kidneys and only parts of other organs is as far as it can go. However, more people could opt to be living organ donors, which could alleviate the need for kidneys. In contrast to these other two types of donors, DCD has a much broader potential for being a source of more organs.

Despite the prevalence of organ procurement and the ethical complications surrounding it, there are no explicit national laws in the United States that directly govern the practice, though laws do establish that OPTN has control over organ transplants. Hospitals are expected to create

and enforce their own guidelines in accord with standard practices that will be comparable to those at other institutions. As a result, many hospitals share the same guidelines (IOM, 2000). For DCD, there are no explicitly accepted norms for protocols covering the most complicated DCD cases that occur in the emergency room, but the University of Pittsburgh received one million dollars to develop protocols for DCD donation in these unplanned situations (McGaffin, 2007). The University of Pittsburgh has often been at the forefront of DCD guidelines, having created the first official protocols governing planned DCD in the early 1990s. In order to be eligible to receive organs and perform transplantation, a hospital must abide by the rules set out by the United Network for Organ Sharing (UNOS), the private not-for-profit contractor that runs the federally mandated Organ Procurement and Transplantation Network (OPTN), which is overseen by the Health Resources and Services Administration (HRSA), a branch of the Department of Health & Human Services (DHHS). Every transplant program, organ procurement organization (OPO), and tissue typing laboratory in the United States is a member of UNOS (UNOS, 2013). Ultimately, policy for organ procurement and transplantation can be determined by the DHHS, through the issuances of rules and mandates for the OPTN (Hertz, 2000).

There are numerous ways in which a patient may die and be eligible for a donation after cardiac death. The University of Maastricht in The Netherlands developed a classification system for the types of donors involved in the practice. The purpose of the classification system was to keep track of and better understand the various types of DCD donors. There are two general categories: uncontrolled (or unplanned) and controlled (or planned). Uncontrolled donors are patients who are dead upon arrival at the hospital (category I) or have experienced a failed resuscitation attempt (category II) (Kootstra & van Heurn, 2007). These are uncontrolled because

the death and procurement are unplanned for – the patient experiences spontaneous death and the decision is made to procure organs only when death is clearly immediately inevitable or after death is already declared. UNOS and OPTN do not regularly keep specific data on procurement from controlled versus uncontrolled DCD, but it is suspected that uncontrolled DCD donors account for a very small percentage of donations, as suggested by the agencies' studies (for example, as illustrated by the 2008 OPTN report).

Controlled donors are patients who are either expected to experience cardiac arrest (category III) or are brain-dead and experience cardiac arrest (category IV) (Kootstra & van Heurn, 2007). These are considered "controlled" because the patients' deaths are expected and the procurement of their organs has been planned. Category III patients make up the bulk of controlled DCD donors. In these cases, the patient is near the end of life and expected to expire shortly, either through the natural course of an illness or through being disconnected from some form of life support. Category IV patients are already dead by brain-death criteria, but their bodies are being kept organically alive until their organs can be procured. If cardiac arrest occurs before normal procurement can take place, then the organs must be removed immediately to remain viable, and the donor becomes a DCD donor. Although the organs are taken earlier than hoped and these situations are generally unplanned, they take place in a controlled environment.

From 1998 to 2011, the last year that OPTN has detailed data, DCD donors have steadily increased as a proportion of the total population of organ donors. They accounted for 15.8% of deceased organ donors in 2011, with the rest being declared brain-dead (2011 OPTN annual report). Most of the 1,283 DCD donors in that year were cases of planned DCD. A majority of DCD donors donated kidneys, while less than half donated livers. Other transplantable organs are much less frequently procured from DCD donors.

In both controlled and uncontrolled DCD, the patient must first be declared dead for the procurement to not violate the DDR. Normally, death is declared after cardiopulmonary cessation is observed for a minimum of two minutes, as dictated by the Pittsburgh Protocol (DeVita & Snyder 1993), although minimal times may vary and have been as low as 60 seconds in cases of infant procurement (Boucek, et al, 2008) or as long as five minutes (Steinbrook, 2007). After death is declared, organ procurement procedures begin and the body is treated in a way that maximizes the health of the organs. DCD donors are not as ideal as brain-dead donors because oxygenated blood has ceased flowing to the organs during the time between cardiopulmonary cessation and the declaration of death, which could potentially cause damage to the organs (McKeown, 2012). Additionally, the hearts from these patients are almost exclusively unusable – it would even seem inconsistent to declare patients dead because their hearts had "died" and then to revive these hearts in another patient (Veatch, 2008).

Most procurements from DCD donors are done after either two minutes or five minutes of observed cardiopulmonary cessation because the condition is presumed to be irreversible after that amount of time. Autoresuscitation has never been properly clinically observed to occur after 60 seconds of cardiopulmonary cessation (Bouceck, et al., 2008). Although there is anecdotal evidence that suggests autoresuscitation is possible after extended periods of time well beyond five minutes (Joffe, 2007), it is generally assumed that autoresuscitation will not occur after two minutes but artificial resuscitation is a definite possibility. Even when artificial resuscitation is no longer a possibility, artificial circulation and respiration involving external devices, such as the process of extracorporeal membrane oxygenation (ECMO), which has been recently employed to maintain organ functions in patients declared dead by cardiopulmonary criteria (Bernat, 2008), could maintain circulation and life functions in the body. In DCD, once the

patient has started down the path toward death, procedures are taken so as to maximize organ viability without compromising the care of the patient.

DCD shares some traits with "living organ donation" (in which an organ is procured from a living patient) and understanding how procurements from living donors work can shed light on some of the issues with DCD. Living organ donation is now a common and generally accepted procedure. The fact that the donor is not declared dead in such procurements would seem to contradict the dictates of the DDR. However, as Arnold and Youngner (1993) point out, the DDR establishes two things, (1) patients must not be killed by organ retrieval and (2) organs must not be taken from patients until they die. They maintain that the former is absolute but that the latter can, and does, allow for exceptions – most notably through living organ procurement. If the DDR is understood more specifically as referring to the donors of multiple vital organs, as Bernat (2006) has defined it, then it clearly does not prohibit living organ procurement provided that the donor does not donate multiple vital organs. While practical concerns over obtaining *viable* organs (DeVita, Snyder & Grenvik, 1993) coupled with the issue of autonomy have driven most of the debate around cadaveric organ procurement, living organ donation does not usually face these problems, as viability is high and consent is likely obtained, so it has experienced little controversy (DeVita & Snyder, 1993). However, it has had its share of dissenters, mostly on the grounds that it constitutes an unnecessary harm to the donor (Arnold & Youngner, 1993), but a recent study at the University of Minnesota found that living kidney donors have survival and health similar to that of non-donors and actually have better-than-average quality-of-life scores (Hassan, et al, 2009). Assuming that a living donor has been properly informed about the procedure and voluntarily desires to donate, harm through a violation of autonomy is also unlikely. There are also clear benefits to the recipients of these donated organs.

Unlike living organ donation, there is a lot of controversy for DCD with regard to the care and state of potential DCD donors. Controlled DCD donors of category III are the most controversial types of DCD donors. Uncontrolled DCD is less problematic because the patients are already declared dead (or are extremely close to it, as would be the case of a patient with severe trauma and asystole) when the doctors make the decision to procure the organs. Category IV cases involve already brain-dead patients, and it is just a matter of circumstance that forces the situation to become a DCD procurement. Category III cases, however, involve patients that are currently living but are expected to die.

In cases of category III DCD, there are three concerns associated with the care of the patient: that a doctor will kill a patient in order to procure organs, that a doctor will fail to treat a patient because he wants the patient to die, and that procuring organs will kill the patient, something DeVita, et al, (1993) explicitly want to avoid. I will deal with the last concern later, as it will prove to be at the heart of my criticism of the DDR. The first two concerns would hopefully be unreasonable – standard medical guidelines and prevailing ethical norms both prevent doctors from killing patients or withholding treatment for these reasons. These should also not be concerns as DCD policy finds its basis in nonmaleficence and patient autonomy (Truog & Robinson, 2003), with the clear restriction that whatever should be done for the patient is, in fact, done as it would be if the patient were not an organ donor. Presumably, the procurement of organs would follow from a natural progression of ailments that have led to death, as opposed to a physician causing a death in order to procure organs. Agich (1999) describes an interesting controversy that took place at the Cleveland Clinic over its instantiation of DCD protocols that was covered on the television program *60 Minutes*. At issue was whether doctors were going to kill patients through the practice of DCD (but it should be noted that the controversy started over

a draft of procedures that did contain some potentially problematic protocols which did not appear in the final version). Misunderstandings and a lack of communication resulted in the possibility of legal charges against workers at the Cleveland Clinic if certain procedures were carried out, despite the fact that the procedures would have caused no ethical, medical, or legal violations. The issue that this incident highlighted still plagues DCD today: the need for better understanding of the process and an establishment of protocols based upon a shared understanding. The subsequent, and repeated, defense and clarification of DCD and its associated protocols establish that it is a desirable and permissible practice (IOM, 1997; 2000).

The case in which Dr. Roozrokh was criminally charged with "felony counts of dependent adult abuse, mingling a harmful substance and unlawful controlled substance prescription" for his involvement in a DCD procurement (McKinley, 2008) highlights the problems with the perception and understanding of DCD. The charges primarily stemmed from the doctor's and hospital's failure to follow protocols for DCD by requiring that a doctor other than the transplant doctor declare death. Violating this rule was not illegal, but the sentiment behind the charges is clear: patients should not be killed for their organs and we should do our best to ensure that there are no conflicts of interest that might give rise to a doctor wanting to kill a patient for organs. Appreciating these aspects of the procedure might have avoided much confusion in this situation, as the spirit of the protocols was not violated, even if the letter of the protocols was violated. DCD is in dire need of much clarification if it is to function acceptably and transparently.

The Institute of Medicine (IOM) has conducted studies (1997 & 2000) on the ethics and practices of DCD and continues to support it as a morally permissible practice, a fact S. D. James (2007) discusses at length. He points out that other organizations, such as the Society of Critical Care Medicine in 2001 (Ethics Committee, 2001), the American Society of Transplantation and

the American Society of Transplant Surgeons in 2006, and UNOS, have explicitly endorsed the practice. In the broader medical community, it is deemed an accepted practice with clear medical benefits (Arnold & Youngner, 1993). The IOM advocates for its use, and transplant centers have now been required to develop protocols for it and implement its practice (OPTN, 2007). The general consensus on DCD is that it is a morally permissible practice. All of these aforementioned endorsements of DCD support the practice as permissible because it does not violate the DDR. I will now turn to the role of death in the DDR and DCD and the problems it presents.

Death

Stephen Holland (2010) explored the notion of what he calls "the ordinary concept of death." He lays out the genuine disagreements about how to define death and states his belief that these must be overcome for important practical reasons, most notably because of the DDR and death's role in organ procurement. He maintains that we as a society understand death to be an irreversible condition based primarily on biological functions, but that there is more to it than that, namely that we appreciate some psychological role in declaring death in people. It intuitively makes sense to think that death should capture a condition that is "irreversible" and to believe that one cannot possibly come back from death – after all, it is assumed to represent the end of life, after which our conceptions about an individual change dramatically. The UDDA, which has guided medical understandings of death for the past 30 years, states that there are two acceptable criteria for certification of death: "irreversible cessation of circulatory and respiratory functions" and "irreversible cessation of all functions of the entire brain, including the brain stem" (President's Commission, 1981, p. 2). Many philosophers see irreversibility as a necessary conceptual part of any definition of death, even those that criticize certain uses of irreversibility.

Bernat (2006) takes issue with using irreversibility in the *application* of death, but he holds firmly to the idea that irreversibility is necessary in a *definition* of death. Veatch (2008) and Truog and Miller (2008) have differing views on the ethical value and implication of an irreversible death, but they all accept the idea that death should be irreversible.

The recommendations of the Ad Hoc Committee of the Harvard Medical School in 1968 which clarified the concept of brain death and established its significance still form the basis of contemporary definitions and diagnoses of death, and these recommendations were shared by the President's Commission in 1981 that led to the establishment of the UDDA. Though the Harvard Ad Hoc Committee was influential, it did not establish any legally binding principles or statements. The President's Commission lacked legal power as well, but it did recommend that standards for death be created as part of statutory law. The President's Commission further suggested that "the 'definition' contained in the statute ought to address general physiological standards rather than medical criteria and tests, which will change with advances in biomedical knowledge and refinements in technique" and that "death is a unitary phenomenon which can be accurately demonstrated either on the traditional grounds of irreversible cessation of heart and lung functions or on the basis of irreversible loss of all functions of the entire brain" (President's Commission, 1981, p. 1). The commission recognized that the nature of the criteria for death will change as medicine advances, but it stated that a general definition and set of criteria for death are possible. It reiterated the recommendations of the Harvard Committee and suggested that whole-brain death serve as the guiding principle for setting criteria for brain death, rather than opt for partial brain death.

Even with the acceptance of brain death as a general guideline for death, there is still significant controversy surrounding medical criteria for brain death. Bernat, Culver, and Gert lay out the reason for the controversy:

> "Much of the confusion arising from the current brain-death controversy is due to the lack of rigorous separation and ordered formulation of three distinct elements: the definition of death, the medical criterion for determining that death has occurred, and the tests to prove that the criterion has been satisfied. This confusion can be reduced by the formulation of a definition of death that makes its ordinary meaning explicit, the choice of a criterion of death that shows that the definition has been fulfilled, and the selection of tests that indicate with perfect validity that the criterion is satisfied." (1981, p. 389)

Bernat et al. continue by describing the primary investigators and their roles in understanding death today: "Providing the definition is primarily a philosophical task; the choice of the criterion is primarily medical; and the selection of the tests to prove that the criterion is satisfied is solely a medical matter" (Bernat, Culver, & Gert, 1981, p. 389). This task has not been easy because the philosophical and medical community have not reached a conclusion on the definition of death. Both philosophers and medical professionals play an important role in this dialogue, as the debate over the status of Terri Schiavo illustrates (Koch, 2005). Rather than seeking to determine which criteria should be used for diagnosing death, as has historically been the case, the contemporary medical investigation into death is more concerned with understanding and establishing better criteria for brain death, which could ultimately help to formulate a more precise biological definition of death. These difficulties with brain death also parallel the difficulties with cardiopulmonary death.

Martin Pernick said that "[d]eath has long been a contingent and evolving concept, shaped by the intertwining scientific, medical, social, and cultural changes" (1999, p. 3). Technology, Pernick acknowledges, has often been the main reason for the evolution of the various conceptual aspects of death. Technology has made it possible to understand the relationship between the brain and organic functions, and it is important to note, as Pallis and Harley (1996) try to make clear, that the old standard of circulatory arrest for sufficient time is covered in the criteria for brain death, as a lengthy cessation of circulatory functions is a sufficient sign that brain death has occurred. Cardiopulmonary cessation under this view would not be a definition of death but would rather be a criterion for brain death. People are dead *because* their brains have stopped functioning, but we can *know* they are dead when their heart stops working for a long enough period. However, the absence of a heartbeat and the lack of respiration have historically functioned as the primary criteria and definitions for death (Ackerknecht, 1968).

There has been a long history of debate over the criteria for death, as Bondeson (2001) and Pernick (1988) have catalogued, and the once "certain" signs of death like putrefaction and rigor mortis have given way to the two current criteria for death. While brain death is a modern concept, cardiopulmonary death has been applied since antiquity. There have rarely been widely accepted methods for certifying that criteria for death have been met, despite the fact that a stopped heart for a period of time (absent extenuating circumstances) has widespread support as a criterion for death (Pernick, 1999). The first widely accepted and applicable breakthrough in certifying death was made in the 1840s by Eugène Bouchut (1818-1891), whose prize-winning suggestion was that death be declared when no heartbeat was heard in two minutes' monitoring with a stethoscope. The accuracy and simplicity of such a procedure was lauded and resulted in a generally accepted method of death certification – after his criteria were modified to increase

listening time to five minutes. It is interesting to note that there was significant controversy over the amount of time that should be required to accurately determine that death had obtained. This controversy is still alive today – including the debate on whether two minutes or five minutes of observation is sufficient to declare death.

In general, "cardiopulmonary death" is meant to denote the irreversible stoppage of circulatory function. Circulatory function naturally stops when the heart ceases to function and blood becomes stagnant in the arteries and veins. The cessation of flow results in the failure of the blood to pass through the lungs and re-oxygenate the red blood cells, which in turn leads to anoxia in various parts of the body as the precious remaining oxygen in the stagnant blood is quickly used up. This anoxia subsequently results in the death of cells and the loss of functions (Bernat, 2002). When the circulation and oxygenation of blood is permanently stopped, then the death of the individual is inevitable. Natural autoresuscitation can return life to cells, or artificial resuscitation (and possibly subsequent artificial circulation) can maintain life in cells, before cell and organ death occurs. If cardiopulmonary cessation continues for long enough, then permanent damage to organs necessary for life functions is likely and death is not far off; in fact, according to some views (like those of Bernat), it might have already occurred.

Brain death is meant as a biological criterion for signifying that a person has perished – either through signifying the end of natural biological control over essential organic functions or through the specific irreversible loss of personhood. It is a biological criterion because the mental functions that have been lost are defined at the biological level (the brain). However, brain death should not function as an adequate *definition* of death, as the definition should remain the loss of personhood. Whole-brain death is an adequate criterion for declaring the death of a person, but it might be requiring too much if it were to serve as a minimal criterion for

death, just as complete cellular dismemberment would be adequate to conclude that death has occurred but might not be reasonable to use as a minimal criterion. A more specific criterion that could directly capture the minimal requirements for the loss of personhood would be more fitting. Despite any problems with brain death, it does have clear intuitive and theoretic appeal and is a concept worth preserving.

Michael B. Green and Daniel Wikler (1980) present the idea that the end of personal identity, which can be separated from both biological and moral considerations, is the end of life. When a person ceases to fulfill certain criteria for identity, then that individual is dead. While it is a good and useful definition, it does face serious problems. As George J. Agich and Royce P. Jones (1986) point out, for the criteria of death to properly represent actual death, "we need to know something about the conditions which are necessary for an individual's being alive as opposed to dead, not whether an individual is still a particular individual or person" (1986, p. 268). Criteria and definitions for death should tell us when there is no longer, and there will never be, an individual present.

D. Alan Shewmon critiques the view that brain death equates to the loss of functions necessary for life in persons. As Shewmon puts it, death occurs when "there is a loss of all emergent, holistic-level propert[ies]. A property of a composite is defined as emergent and as holistic if it derives from the mutual interaction of the parts, is not predicable of any part or subset of parts but only of the entire composite" (2001, p. 460). Shewmon points out that the brain is not the sole purveyor of integrative functions in the body, as the brain can perish while the body maintains minimal integrative functions. He is correct then when he claims that brain death does not signify that emergent, holistic-level properties (which signify there is life present) have ceased**.** For a human organism to die under such a view would require the cessation of

many organic functions in addition to brain functions and could take quite some time to fully realize. Cardiopulmonary cessation would also fail to signify that death has occurred in accord with this view because it is possible for the body to maintain some integrative function after it occurs (Shewmon, 2001).

While Shewmon could be correct that the loss of these functions is necessary for a human organism to die, defining death in such a manner would impose radical change on current common views on death. It would also not closely map onto the loss of personhood, and moreover, would be impractical to apply. A good definition of death would ideally capture historical and common views on death, and it might not be a problem should this result death losing at least some of its practical importance. Death can explicitly have practical importance that should be maintained, but it could also be that practical importance flows from death *because* it captures an important practical event, as I will argue for later. Shewmon is approaching death from a theoretic standpoint and attempting to come to a complete understanding of death that is theoretically sound, implementable, and practical. While this is a noble endeavor and his general definition of death does appear to capture what is meant by death, the devil is in the details, and it would be very difficult to determine which criteria would certify that important integrative functions have ceased.

Death is thus an elusive concept to nail down to everyone's satisfaction. Perhaps the best option is, as Shewmon (2010) and Zeiler (2009) suggest, accepting a pluralistic view on death and allowing for different definitions and criteria based on context. Yet even if we take this route, there still would need to be a good justification for establishing that DCD donors ought to be considered dead. Unfortunately, these donors are probably not in a condition that should be considered dead because their condition is not, nor should it be, considered "irreversible."

It is important to note that whichever view on death one prefers, regardless of which one prevails, is of little relevance to the main purposes of this work. One could adopt one of many views on death and my points and goals will still be relevant: when determining the permissibility of procuring multiple vital organs from non-brain dead patients, we need only look at the issue of moral permissibility and not the issue of death. As I will illustrate later, if death plays a moral role, it will already have been accounted for in a specific and directed moral analysis of practices such as DCD. I will now turn to the specific problems for death and DCD in light of concerns over irreversibility to help further illustrate that alternative approaches that avoid integrating these concepts can avoid many problematic conceptual difficulties.

Irreversibility, Death, and DCD

Although DCD donors are classified as dead under current medical criteria, it is unclear whether this should be the case if irreversibility is a part of death, as such donors may have not experienced the irreversible loss of cardiopulmonary functions (Bernat, 2010). Additionally, it is unclear whether the irreversible loss of cardiopulmonary function should be considered death in the first place (e.g., Koppelman, 2003). Since it is very unlikely that DCD donors are brain-dead, they would have to be declared dead on cardiopulmonary criteria if the UDDA is to be respected. There are good reasons to maintain that cardiopulmonary cessation can be a criterion for death and that reasonable criteria can be offered to certify it has occurred, but DCD donors will fail to fulfill any reasonable criteria.

We often colloquially refer to death as something that is reversible, and speak of people "coming back to life" when they have, for example, experienced cardiopulmonary cessation and been revived. There are also numerous news stories each year about someone being declared dead but subsequently returning to life, as recent cases of a 2-year-old boy (Zimmerman, 2012)

and a 95-year-old woman illustrate (Evans, 2012). It is most likely that these patients, and ones like them, were never actually dead, but rather incorrectly declared as such due to unreliable methods of certifying death or that there was a failure to appreciate extenuating circumstances. Despite these common-place sentiments about reversibility, there is an established history of using irreversibility in the definition of death in both common and technical areas. Irreversible connotes that there is no returning from it – when you're dead, you're dead, and that's it. There is an inconsistency in the common usage of the term "death," since it is sometimes referred to as reversible but generally thought of as irreversible, but which one is more conceptually justified? There is no obvious reason to prefer using irreversibility over abandoning it, nor is it clear that irreversibility is inherent to the concept of death, and common usage reflects this. These difficulties might give credence to the idea that current applications of death are inherently flawed, which would just provide further reasons to avoid basing moral decisions on declarations of death.

It could be that DCD donors are neither alive nor dead. Although it is clear that alive and dead are opposites, it appears that most authors assume they are contradictories and that an individual is either alive or dead. They do not consider the possibility that alive and dead are contraries and that perhaps people could be neither alive nor dead. It is possible, and maybe even appealing, that there could be clear and reasonable criteria for "living" that an individual fails to fulfill and reasonable criteria for "death" that the same individual fails to fulfill. For example, one could maintain that in order to be alive, one must have proper cardiopulmonary functions, and in order to be dead, one must be in an irreversible condition. With a view like this, patients that die under common conditions when cardiopulmonary functions cease would be likely to be both not-alive and not-dead in the moments after asystole occurs. On another view, one could

maintain that a person must be present for an individual to be alive, but need to lack all organic functions to be dead, as is the case with PVS patients. Alive and dead could even be sub-contraries and people could be both alive and dead, but this is unintuitive. It is certainly possible for a person to be dead while the associated organic body lives, but this is referring to two different objects for life and death. Despite these possibilities, it is often believed that a person is either alive or dead and must be one or the other but cannot be both.

If a patient is experiencing cardiopulmonary cessation and is neither alive nor dead, then it would make sense to think that he or she could "come back to life" and would still have never been "dead," which could preserve the definition of death as an irreversible state. Death would still not be reversible but returning to life from this intermediary state would be possible. If this view were adopted, then patients in conditions like this might seem to be eligible for organ procurement, yet the DDR would prevent procurement. However, it could be possible that patients would not need to be dead to be potential organ donors – they would just have to not be alive, as can be evidenced by cardiopulmonary cessation. Procurement from these patients would be in line with the CDDR. Technically speaking, DCD donors would be in a reversible condition and potential organ donors *could* come back to life even at (or after) the time organs are procured. This would match up well with the fact that declaring death during a period of cardiopulmonary cessation is imperfect, as during these periods the person would merely be not alive. If this is appealing, then it would suggest that we abandon the DDR in favor of the CDDR or a "not-alive-donor rule" (NADR).[1] In these cases, a patient's heart would stop beating and thus be a DCD donor, but would not be dead. Death could then be defined and applied without having to worry about it impacting the permissibility of DCD. Despite the appeal of these

[1] I would like to thank David Shoemaker for his explicit recommendation of such a concept and its associated views.

alternative approaches to understanding death with regard to DCD, the fact still remains that death is generally thought of as an irreversible condition that immediately follows life.

D. Alan Shewmon (2010) and Kristin Zeiler (2009) both discuss the possibility of separating the various parts of death and dying and applying a pluralistic conception of death in things like DCD. The advantage of doing this is that expanded concepts of death can be applied in DCD cases so that patients are in a condition that can be reasonably called dead without committing us to alterations to the normal notions and applications of death. While this might be a reasonable approach, it is still necessary to clarify what any type of death that includes DCD donors would look like.

Irreversibility vs. Permanency

The idea that death is the end of existence suggests that it is an irreversible state. However, any reasonable understandings of irreversibility that can be used in death do not lend themselves to definitions of death that match up well with how we generally think about and apply death. If the concept of irreversibility is modified to adequately capture common conceptions of death, then "irreversible" does not seem to connote a state that is actually irreversible. If irreversibility is maintained as a necessary part of the definition of death, then DCD donors are not dead. If irreversibility is abandoned or modified, alternative definitions of death that maintain that DCD donors are dead face many problems, most notably by resulting in conceptions of death that do not match well with the set of individuals whom we have historically referred to as "dead." A definition of death that covers the individuals that are widely presumed to be dead (e.g., most individuals that are considered dead under current cardiopulmonary criteria under normal circumstances) will end up excluding many DCD donors from that class of dead patients.

If irreversibility means something similar to “incapable of being reversed” or “impossible to reverse,” then an irreversible death could be incompatible with the prevailing understandings and applications of death. Problems arise under the strictest understanding of "irreversible" because the requirements for death are so strong that traditionally dead individuals would not actually be dead: in theory, one could come back from a very terrible condition. This is problematic because, despite all of the definitional problems with death, there is a clear category of individuals that we view as “dead.”

Irreversibility is usually seen as a problem in death primarily at the level of application, though, as Shewmon (2010) illustrates, it can be problematic in any aspect of death, including its definition and criteria. Bernat (2006), Veatch (2008), and Truog and Miller (2008) discuss this problem with irreversibility. The primary concerns arise because criteria to certify death do not adequately nor accurately certify that an irreversible condition has occurred. Bernat encapsulates his objections to irreversibility with the idea that permanency should replace irreversibility in certain applications of death. He concludes that DCD donors might not actually be dead because their condition is not irreversible. However, this does not preclude their being in a condition that permits organ procurement and we might subsequently be justified in declaring death before irreversibility obtains when a patient enters into a “permanent” state of cardiopulmonary cessation and these functions “will not become restored either spontaneously or through intervention” (p. 124). Permanency entails that a patient’s condition may be capable of being reversed but will not be, while irreversibility entails that a patient’s condition is incapable of being reversed. The reason we might be justified in declaring death and taking actions that would normally require actually being irreversibly dead is that “a state of irreversibility of cessation of breathing and circulation rapidly follows the demonstration of permanent cessation of functions

[and] the outcome difference between a permanency and irreversibility standard is inconsequential" (p. 129). Bernat retains "irreversible" in the definition of death, but he allows for the declaration of death (and taking of certain actions) while an individual is still in a reversible state because there are unacceptable consequences for requiring irreversibility to *declare* death – primarily, that viable organs could not be procured. This is how Bernat makes a subtle shift away from the DDR to supporting policies more in line with the CDDR. He concedes the donors are not dead, but are in a condition close enough to be declared dead and thus potential multiple vital organ donors.

While this is not an inherently problematic approach to death and irreversibility, it can be a problem for the UDDA's requirement that death be declared when the condition is irreversible, as Alexander Capron (1999) points out. What this approach effectively holds is that the *prognosis* (the likely future condition of the patient), not the *diagnosis* (the present condition of the patient), of death means that a patient is dead. Indeed, it is possible that a DCD donor's heart could be used in another patient after the donor's having received a diagnosis of irreversible death. Certainly the donor had the *prognosis* of death, but this does not mean she was actually dead at the time death was declared and the heart procured. Bernat (2006) and John P. Lizza (2005) have attempted to defend this view that a patient can be irreversibly dead despite being capable of revival, which would allow the transplantation of the very organs used to declare death.

Lizza suggests that we opt for something very similar to Bernat's idea of permanency. His view ends up amounting to a slight modification of David J. Cole's (1992) "weak" ontological view of death and maintains that at the point a patient's death is permanent, she is actually dead, and not merely declared as such with an *actual* death to follow, as Bernat suggests. This notion

of death relies explicitly on the intentions and actions of others for the determination of death. Lizza terms it as a "realistic" (or plausible) irreversibility, that is based on the state of the patient, external relevant factors, and individual and social decisions (p. 56). A "weak" irreversibility primarily considers the actual circumstances and possibilities in determining the status of the individual, but a "realistic" irreversibility relies more heavily on the decisions of patients, partly because it is possible that technology could become available to prolong life indefinitely. If an individual chooses not to make use of life-prolonging technology, then she will be declared dead under certain conditions whereas those choosing to utilize the technology would not be dead under the exact same conditions. Lizza's view ultimately fails because "irreversible," in this sense, no longer means actually irreversible, as evidenced by the fact that one would be irreversibly dead but can return from the state. Death in this sense does not seem to match up well with how it is commonly understood, meaning that a patient is dead when the relevant people decide the patient is dead, not when the condition is irreversible.

Even if some version of these views is appealing, it would not seem to be in line with the UDDA and would stretch the notion of irreversibility beyond recognition. The President's Council on Bioethics (2008) espouses a view similar to Cole's and Lizza's and holds that, in DCD, a patient is reasonably declared dead when the decision is made to not resuscitate (assuming that the patient has been respected and received all reasonable care before such an event). With all of this opposition to irreversibility, should irreversibility be removed from the notion of death and the UDDA be abandoned or modified? It is still important to keep in mind where the problems for irreversibility come into play. There are clear problems with requiring irreversibility in order to declare death, especially when applying cardiopulmonary criteria. We might still maintain that a patient is dead when cardiopulmonary cessation is irreversible, but

when cardiopulmonary cessation happens, we could possibly declare death even though such a declaration could be an unreliable indicator that the patient is actually dead. This would mean that the definition is not necessarily problematic, but the declaration of death is. However, a reasonable notion of "irreversible," one that matches up with general conceptions of death, is still needed for possible use in the definition of death.

As an alternative to a weak ontological notion of irreversibility, Tom Tomlinson proposed a "moral" definition of irreversible in response to Cole. The moral definition encapsulates the idea that irreversibility should be taken to mean that "the possibility of reversal is not ethically significant" (Tomlinson, 1993, p. 161) because death occurs when there are no ethical reasons to reverse the dying process, perhaps because the situation is hopeless or the patient has declared that she does not wish to be revived. But simply because we do not have an ethical reason does not mean that we have *no* reason to reverse the condition nor that we *cannot* reverse a condition. It is that we simply, for ethical reasons, *will* not reverse the condition. For example, an elderly patient dying from cancer with a DNR order that experiences cardiac arrest will be "irreversibly" dead on this definition. Technically, cardiopulmonary circulation could be restored and there could be reason to do so – perhaps the family members may wish to see the patient continue to live. However, because of the DNR and all of its ethical justifications, there is no *ethical* reason to deny the wishes of the patient and reverse the condition, and we thus *will* not reverse it. This understanding of "irreversible" is so far from the notion of real irreversibility that it should not be thought of as "irreversible." The "moral," "weak," and "realistic" notions of irreversibility are all thus very similar: in all three, it is not the actual condition of the patient that determines whether that patient is dead, but rather our actions or motivations that determine the state of death.

These versions of "irreversible" are not appealing because of the simple idea that the use of irreversibility in a definition implies that the condition is, in some sense, impossible to reverse. "Impossible" can be as strongly or as weakly defined as one wants it to be (much like "irreversible"), but the simple fact is that if one is in an "irreversible" state and subsequently returns from that state (or could readily return from that state), something is wrong either with the definition of "irreversible" or the declaration of the condition as irreversible. "Irreversible" is a coherent and clear concept, but it does not appear to capture the condition of death, especially its declaration. It would appear that death has been mislabeled as an irreversible condition.

Cole (1992) suggested that instead of literally interpreting the UDDA and looking for a definition of death that includes a strict definition of irreversible, we ought to look at preserving the motivation for holding that death should be an irreversible condition. The motivation is, presumably, to use death to indicate a state that is the opposite of life and something that will not – as best as we can understand – be returned from. Bernat's (2006) and Lizza's (2005) proposals that death be understood as a permanent state is similar to the weak and moral notions of irreversibility, but Bernat openly accepts that it is a replacement for a flawed notion of an irreversible death and is in accord with the spirit of the UDDA. Bernat's proposal to understand death as a permanent condition is thus plausible, but it needs to be understood as merely connoting permanency and *not* irreversibility.

Of course, we could adopt many of these suggestions and avoid problems by declaring that a certain definition of death, including a particular definition of irreversibility, applies to DCD donors and nowhere else. This would allow for the DDR to be maintained and for DCD donors to be genuinely dead at the time of organ procurement. Yet, the condition of DCD donors

strongly suggests against them being dead, since their condition is sufficiently far from those individuals that are dead by more universally accepted criteria.

Why DCD Donors are Not Dead

DCD donors fail to fulfill either of the current criteria for death, as they have not experienced an *irreversible* (and possibly not even a permanent) loss of cardiopulmonary functions nor has their brain function been damaged enough at the time organs are procured. It seems likely, even given the various views of "irreversible," that their conditions are medically reversible. Artificial resuscitation to a living state (that is, natural maintenance of circulation returns and brain death has not occurred) is possible after at least 10 minutes of cardiopulmonary cessation (Joffe, 2007). The case of recent infant heart transplants clearly illustrates that the condition of a DCD donor is reversible after two minutes of asystole, as hearts were procured after two minutes of observed cardiopulmonary cessation and successfully transplanted (Boucek, et al, 2008). If the organ certifying death can be reused, why should donors be declared dead based on the assumption that the organ is irreversibly non-functioning? It wasn't the case that the doctors were surprised to find that the heart could work in another patient, as they indeed had planned that it would work. Bernat (2010) attempts to resolve this issue by stating that at the time such an organ is taken, the condition is permanent in the donor – and subsequent actions do not change that declaration once it has been made.

Such procedures illustrate that there are clearly other factors to the condition of a DCD donor that make them – and not the recipient of the organ – eligible to be declared dead. As is likely the case, the donor could have had other complicating factors that meant it was not possible for the heart (and body) to be returned to normal functioning in the donor patient. The previously mentioned case of Ruben Navarro (whose botched procurement resulted in charges for Dr.

Roozrokh) and those mentioned by Truog, Miller, and Halpern (2013), such as one involving a young girl dying from brain damage, but not brain dead, exemplify scenarios where there are obvious reasons to hold that the donors ought to be declared dead rather than the recipients of the organs. The fact that the organs were lost and not subsequently implanted in these cases does not lessen the fact that these patients were the ones that were going to be declared dead for reasons other than the condition of the transplantable organs. Thus, there is little reason to think that the conditions of organs like hearts were actually reversible in the donor and that the heart cannot be returned to full functioning in the body *not* because of the state of the heart and its place in the body, but because of something else. If a DCD donor is to be declared dead, then it is because of other factors that ultimately create problems for cardiopulmonary functions along with the fact that the heart is stopped – albeit, maybe not irreversibly stopped. Regardless of the actual reasons for which potential DCD donors are declared dead, they are in a state of cardiac functioning (and overall health) that results in their being declared dead according to prevailing criteria. While their condition is not irreversible, it would appear that they do have the extremely likely prognosis of immediate death without intervention – they are, in other words, "imminently dying." This fact is captured by the "permanency" and related approaches to death (Cole, 1992; Bernat, 2006; Shewmon, 2010).

DCD donors are also not dead by brain death criteria. After five minutes of anoxia without treatment, brain damage begins to occur (Hypothermia after Cardiac Arrest Study Group, 2002), but patients have experienced cardiopulmonary cessation for periods of at least 10 minutes and subsequently returned to fully functioning cognitive states (López-Herce, et al, 2004). After the requisite five minutes of cardiopulmonary cessation for DCD has passed, it is unlikely that a soon-to-be DCD donor has experienced any significant and irreversible loss of brain functions.

Before five minutes, any significant amount of brain damage is highly unlikely, and questions of its permanency or reversibility are therefore irrelevant. Not only are DCD donors not dead by cardiopulmonary criteria, they also are not dead by brain-death criteria.

Irreversibility is an explicit part of the UDDA, and if irreversibility is unreasonable to use in definitions of applications of death, then permanency could be used as an appropriate replacement. Most uses of permanency entail a definition of death that maintains we *will not* prevent the patient from entering into a condition of death (such as Bernat's and Cole's) but there is no reason to hold that this, rather than that we are *incapable* of preventing it, is closer to the spirit of irreversibility. Reversibility, in the context of death, is also not a term that is obviously heavily dependent upon our intentions. If our intentions are important, they might function as necessary conditions but cannot be sufficient conditions for declaring death – it is odd to think that whether we *will* treat the patient determines whether the patient is dead, but it is not unreasonable to think that it could play a factor. Opting for a definition of death that utilizes permanency entails that a patient should be in an established state independent of our intentions.

An approach to defining death based on our capability to reverse it openly accepts that individuals can come back from the dead. What is incapable now may be capable in the future – cryogenically frozen people are dead right now because we are incapable of bringing them out of it. When we are capable of bringing them out of it, they are no longer dead. How we will deal with this revived individual is a separate matter – but they are currently assumed to be and treated as dead and there is nothing wrong with this intuition. If they are never revived, then it would appear that they would have been dead from before they were frozen. If we include planned future actions in our definition of death, then these individuals would not be dead, but we would not know this until the patient is revived (and is definitely alive) or is deemed

incapable of revival, in which case they will have been dead for a while. Views that espouse a middle-ground between life and death as an independent category of being could give us a reasonable view of the condition after life that makes sense of this situation. Such an approach could be similar to the time between an election and the assumption of office that results in a special status for those elected. Stated intentions (votes) are determining the future status of an individual, and once elected the individual is given special treatment – but not treated as if they were already in office. We can be justified in treating patients differently when their condition changes and our intentions are to procure organs, but it is unclear whether that means that they should be declared as dead simply because our intentions, coupled with the DDR, state they should be.

Bernat's approach openly acknowledges that donors are not dead but that we are permitted to procure their organs because they are as close to death as we can expect or hope them to be. He asks, "is permanence of the cessation of circulatory and respiratory functions a sufficient condition for a death test without also requiring irreversibility?" (Bernat, 2006, p. 126) and answers affirmatively with the claim that, "In clinical practice, declaration of death using the test for cessation of circulatory and respiratory functions almost never requires showing that the cessation of functions is irreversible." For the sake of consistency, he argues that we should use on DCD donors the same criteria that physicians use to certify patients in regular clinical situations. It is not just that DCD donors will not autoresuscitate and will not be resuscitated artificially, but that they are in the same condition that is used to declare death in most patients (Bernat, 2006, p. 127). If we justifiably declare other patients dead when they meet these conditions, then why not declare DCD donors dead as well?

Bernat passively accepts two very important claims: DCD donors are not dead by current standards when organs are procured and the patient *being* dead is not necessary to make procuring organs from a DCD donor permissible. Don Marquis responds to Bernat's ideas and holds that, "When a DCD donor is declared dead, it is not known that he has suffered irreversible loss of circulatory and respiratory functions. Therefore, given the standard legal definition of death, DCD donors are not known to be dead at all" (Marquis, 2010, p. 39). Marquis doesn't have a resolution to the problems he foresees this will have for the DDR and DCD, but his response to Bernat has force and casts doubt on whether permanency can really resolve the issues facing DCD. If a DCD donor is not dead then it would follow that (1) the procurement violates the DDR and should be considered impermissible, (2) the procurement is permissible as a notable exception to the DDR, or (3) the procurement is permissible and the DDR should be abandoned, and something like the NADR or the CDDR should be implemented in its place. DCD should be continued regardless of how the problems are reconciled between the DDR and DCD because DCD is, and has always been considered, a sensible practice with merits, one that we should promote as ethically desirable (DeVita & Snyder, 1993).

Even if patients do not need to be dead to be permissible candidates for DCD, there could still be something said for maintaining that they *ought* to be dead. This would likely entail that we redefine death to include certain patients and maintain that the permissibility of organ procurement turns on whether a patient is dead. Robert Veatch (1999) openly accepts that social desires will influence the definition of death, and although he wants to define and implement a consistent and clear definition of death that is ethically significant (which he does in Veatch, 2008), he leaves open the clear possibility that the deciding factor that makes a patient dead has little to do with her condition – it could be the social aspect of the definition that has made the

patient dead. The reason the patient is dead is because we have chosen to define all of the relevant terms in such a way that the patient is classified as dead. For example, we can describe two different sets of definitions in which the condition of the patient and the time at which organs are procured are the same, but in one the patient is "dead" and in the other she is not. In the first case, death is defined as permanent cardiopulmonary cessation, death is required for organ procurement, and the patient has experienced permanent cardiopulmonary cessation. In the second case, death is defined as the permanent loss of higher brain functions, death is not required for organ procurement, organ procurement is permitted when a patient experiences permanent cardiopulmonary cessation, and the patient has experienced permanent cardiopulmonary cessation.

In both cases, the patient's organs will be permissibly procured when she has experienced permanent cardiopulmonary cessation, but in one case she is not dead. Practically speaking, in these cases, there is *no* difference except the labels that are placed on the patient. Why opt for one approach over the other? The definitions of "death," "irreversible," "cessation," and almost every other term used in this scenario can be defined in a variety of ways. If death does moral work, then it does so merely by definition.

In the introduction of their book on the definition of death, Youngner, Arnold, and Shapiro give a little anecdote,

> A young boy attending his first baseball game asked his father, "How can the umpires tell a ball from a strike?" The father suggested that after the game the boy pose the question to the three umpires.
>
> When the boy asked the first umpire, he responded, "I call them as I see them." The second umpire answered, "I call them as they are." But the third umpire stepped back and

stared at the boy, "Son," he said, "they ain't nothing till I call them!" (Youngner, et al, 1999, p. vii)

This story is an analogue to how we could know whether someone is dead, and there is something to be said for each approach: death occurs when we notice that certain conditions have occurred, death occurs when certain facts obtain, or death only occurs we say that it does. So why not define death to include the patients we want and use death as a moral guide, as the current system is supposed to work? The decision to use death in such a fashion should be based both on the value of using death and comparing it to the alternatives. Though it is possible to define DCD patients *as* dead, many scholars have shied away from this option.

In their survey of the literature, Dale Gardiner and Robert Sparrow (2010) conclude that there is a general consensus that DCD donors are not dead and that they probably should not be considered dead along any type of traditional lines. They suggest that a solid justification that takes this fact into consideration must happen if DCD is to justifiably continue as most people desire. The only difference in the physiological status of DCD donors at the moment their hearts stop is that the heart is stopped and circulation has ceased, as Bernat (2010) is quick to point out. Bernat wants to maintain that this loss of circulation results in a significant change in moral status for the potential donor (that this loss of circulation *makes* the patient a candidate for organ procurement), but it is not clear that this is the proper approach.

Indeed, it might be odd to maintain that the cessation of circulation itself connotes a change in moral status. Before the heart stopped, the patient was in a certain condition that was leading to death. All the heart stoppage did was start a more definite timer for the decline into death. Around the time that the heart stops, patients are in a certain condition, and being in this condition is what appears to justify organ procurement. Truog, Lizza, Cole, Shewmon, Sparrow,

and numerous others adopt this viewpoint and advocate the shift to something that conforms with the CDDR. Yet, the condition of planned DCD donors (those that are awaiting death in a hospital) does not change significantly when the heart stops. The change came much earlier, when the underlying condition started the decline into death. If we look at what makes a brain dead procurement permissible, it is not the death of the patient, since what makes the patient dead happened before the declaration occurred. It is also not the declaration that makes it permissible, but rather that proper consent was given and the patient was not, and will not be, disrespected by the procurement. Being close to death is probably enough to illustrate that the principles of nonmaleficence and respect for persons are upheld. Using any definition of death would not change the actual physiological condition of a patient and neither would it inherently impact the moral status of a patient.

Conclusion

The primary issue with DCD has been whether the donors are dead at the time of procurement. If they are dead, then some argue that it is permissible to procure their organs in accord with the DDR and thereby, presumably, uphold the principles of nonmaleficence and respect for persons *because* they are dead, establishing point (2) in my main argument: The DDR purports to guarantee that these fundamental principles will be respected in organ donation. As a simple matter of fact, DCD donors are not dead, as they do not fulfill either of the current criteria for death. DDR thus seems to render DCD morally impermissible as DCD donors are not dead, point (3) in my main argument. Furthermore, it is unlikely DCD donors will fulfill any reasonable criteria for death because their condition is not irreversible, and modifying death to accommodate them results in an unacceptably drastic change to the concept. This establishes point (4) in my main argument: The DDR relies on a deep conceptual vagueness about "death,"

and so doesn't have clear application conditions. Yet there might still be grounds to argue that DCD donors should be understood as dead, primarily because the DDR explicitly maintains that organ donors must be dead. If independent arguments can establish that organ donors should be dead, then the DDR could be a morally justified rule. If it is not a morally justified rule, then there could be reasons to abandon the belief that organ donors ought to be dead. The next chapter will examine the DDR and establish that it is an unjustified moral principle and that there are no good reasons to think that organ donors *should* be dead.

CHAPTER III: SHOULD DCD DONORS BE DEAD?

Introduction

Is there something to be said for the requirement that organ donors should be dead before organs are procured, just as the DDR dictates? It is unclear whether these patients really are dead at the time of procurement. I will argue that organ donors do not need to be dead in order to permissibly procure their organs. Since DCD donors are not dead, the current practice of DCD constitutes a practice where patients are not merely being killed *by* the removal of vital organs, but are actually being killed *for* their vital organs. This chapter will show that it is permissible to kill a non-dead patient *by* the removal of vital organs in clear violation of the DDR, but will not answer the question of whether the practice of DCD as it is currently performed – where patients are killed *for* their organs – is permissible. If the practice is to be maintained, then the practice of terminating a patient for vital organs must be justified as permissible, and the next chapter will establish the permissibility as DCD is currently (and will continue to be) done.

The Dead Donor Rule, Voluntary Active Euthanasia, and Capital Punishment[2]

I will argue that the DDR is not justified either in principle or in practice. For the current debate, I will take no stand on whether we should permit DCD or procurement from patients in persistent vegetative states, but I will argue that it is a serious mistake to hold that their permissibility turns on whether they violate the DDR. Finally, I will explain why extant arguments for and against the DDR are misplaced.

[2] The remainder of the material in this chapter has been adapted from C. Coons and N. Levin, "The Dead Donor Rule, Voluntary Active Euthanasia, and Capital Punishment" (2009).

I begin with a thought experiment to highlight a broad class of cases in which it is morally permissible and perhaps obligatory to procure vital organs from living individuals. I then explain why these are not merely cases where it is *all things considered* permissible to violate the DDR, but cases where there is *nothing to be said for* adhering to it. I explain why there is no reason to comply with the DDR in cases where three conditions are met: 1) the time of termination is fixed; 2) the patient autonomously expresses a wish to be killed by removal of vital organs (RVO) but does not choose death *for* the removal of organs; and 3) the use RVO is no more harmful to the patient or others than alternate forms of termination. These conditions may be met regularly when individuals opt for voluntary active euthanasia or face execution. I conclude that the DDR rests on a false moral principle. Next, I consider the possibility that the DDR has practical justification. Specifically, I ask whether the DDR is justified because promulgating it is advantageous or because it functions as an effective safeguard against physician abuse. I argue that the DDR enjoys neither justification. Finally, I consider my argument in light of extant defenses of the DDR. I explain why these latter do not support the DDR; instead they reveal that the DDR's champions are better served by alternative rules.

Thought Experiment: The Killing Machine

A prospective killer buys a top-of-the-line "killing machine" with all the latest bells and whistles. After it is turned on, the machine will terminate a victim in 15 minutes – and once it is turned on, it cannot be stopped. However, after it is activated, one can choose or change the *method* by which the machine kills. For example, he could move the setting from "crush with a large iron bell" to "choke with a penny whistle," or from "overdose with opiates" to "anesthetize and remove vital organs." However it is the victim is killed, the victim will be in a condition that should be considered "dead" by any reasonable criteria. Suppose our killer selects a victim and

turns the machine on. Before the 15 minutes elapse, the victim (aware that her death is determined but that the method is not) requests that the machine be set to "anesthetize and remove vital organs." Is it permissible for the killer to set the machine to this setting? Is the killer obligated to set the machine to this setting? Is there anything *at all* to be said for not abiding by the victim's request?

While changing the setting (and the subsequent implementation of termination by RVO) is a clear violation of the DDR, I submit that if saving the patient is impossible in this case, then the killer does no wrong through the act of changing the setting at the victim's request. It also seems clear that third parties – including doctors – would do no wrong by doing the same. Three conditions make termination by RVO compelling in this case: First, the victim's fate is sealed – she will be terminated, and terminated at a known time. Second, the patient requests the method. Third, the use of this method does not cause more harm to self or other than other possible methods.

Whatever your favored moral theory, it is hard to imagine what can be said against granting the victim's final request. Indeed, it appears that the killer (or any able third party – medical professional or otherwise) may be *obligated* to change the setting. First, note that changing the setting does not kill or cause the patient's death – turning the machine on does. And by changing the setting one respects the victim's final wish, which is an *important* wish about how her life ends. Moreover, on all standard theories of welfare, changing the setting either makes the victim's life better or makes it no worse. For example, changing the setting would be better for the victim on a hedonistic model because this method of death is no more painful than any alternative, nor is it any less pleasurable. More importantly, the victim experiences the minor satisfaction that accompanies knowing that her request was granted and that her death may not

be a complete "waste." Moreover, by changing the setting we avoid the pain and stress caused by her beliefs that (1) she will not die as she wishes and (2) bystanders have ignored her simple and important last request. On desire-fulfillment or preference-satisfaction views, it is even more obvious why changing the setting promotes the victim's welfare. Finally, on more complex or rarified views of personal well-being, such as those defended by Peter Railton (1986), Stephen Darwall (2002), Fred Feldman (2004), L. W. Sumner (1996) and Richard Kraut (2007), changing the setting either benefits the victim or makes no difference at all.

In addition, the patient's death is not hastened nor is her life used as a means, given that her time of death is already determined. Nor does changing the setting have foreseeable negative effects on others, nor is it disrespectful to others. On the contrary, changing the setting may allow us to save the lives of others in need of organs. Thus, for *all* affected parties, switching the setting has either a neutral or beneficial effect on well-being; and by fulfilling the victim's final request, we respect the victim and her autonomy with only foreseeable *positive* effects on the autonomy of others – those who may be saved by her organs. Finally, by switching the setting we do not violate any plausible or recognizable rights. So regardless of whether one takes well-being, respect, autonomy, or rights to be of fundamental moral significance, it appears that we have good grounds for granting the patient's wish and *no* grounds not to.

This thought experiment is an exotic counter-example to the DDR. And a counter-example, especially a fantastic one, is not very powerful on its own. After all, there are no such killing machines and moral rules can be justified even if they have real or hypothetical exceptions. However, there are real-world analogues to the thought experiment – cases that independently help to illustrate that there is sometimes nothing to be said for adhering to the DDR.

Possible Real-World Analogues: Voluntary Active Euthanasia and Capital Punishment

I take no current stand on the permissibility of voluntary active euthanasia (VAE) or capital punishment (CP). However, where these practices exist, termination by RVO may meet the conditions outlined above. I take it as obvious that termination by RVO would meet the first two conditions. Termination by RVO need not hasten death. The method of termination should have no significant bearing on the time selected for termination. Additionally, patients seeking VAE and the condemned could autonomously express a wish to be killed by RVO without choosing death *for* the removal of organs. This leaves only the third condition – does the use of this method cause more harm to self or others than other possible methods?

First, consider harm to others. If a patient opts for VAE in a society that permits it, and then chooses termination via RVO, it seems clear that no more harm is done to others than if he were terminated by any other means. Indeed, the effect on others is quite the opposite because termination via RVO can save multiple lives. Of course, in some cases, a family member may be horrified that the VAE is carried out by this method. And perhaps this horror could qualify as a kind of harm. If so, then in these cases there would be an other-regarding concern. However, these sorts of harms (if they qualify as such) are not necessary or unique to using RVO. Family members may be equally or further distressed by the fact that the patient is being suffocated or having his organs caused to fail. In addition, there is no reason to suspect that this is a regular feature of VAE via RVO. Therefore, this concern does not favor "removing this method from the table" nor does it suggest that there typically are other-regarding reasons not to carry out VAE via RVO.

Admittedly, the case is less clear when we turn to CP. Again, multiple lives may be saved if a condemned convict chooses and receives termination by RVO. However, one might argue that

we harm the convict's victims and their families and society at large by giving him some choice in his punishment. This objection seems somewhat implausible. While it may harm others to allow the criminal to choose the *severity* or *nature* of his or her punishment, allowing the condemned to opt for RVO does neither. Permitting the condemned to choose RVO over lethal injection, for example, is not permitting the criminal to choose a lesser punishment nor a different punishment. Instead, it is merely an option on how to *carry out* humane CP (assuming such a thing is possible).

Nevertheless, there is a second notable difference between using RVO in cases of CP and using RVO in the cases of VAE and the killing machine. Unless we recognize a set of non-medical professionals with medical training to carry out executions, then using RVO to execute will require that a *doctor* kill; if the execution were carried out by some other method, no doctor need be implicated in the killing. Arguably, policies that allow doctors to participate in executions threaten central professional values and may indirectly alarm or threaten the public. I will not take a stand on this debate here. However, it is worth noting that these concerns are controversial (Truog & Brennan, 1993; Waisel, 2007). More importantly, they seem to bear on *policies* that permit doctors to participate in executions. In single, perhaps unpublicized, cases, it is difficult to discern how a doctor's participation in an execution produces any discrete or identifiable harm to others (except, of course, for the executed). Thus, it is plausible, but highly controversial, that RVO in cases of CP really are morally on a par with RVO in the killing machine case. Nevertheless, as will become clearer below, my case against the DDR will not rest on the assumption that they are morally on a par.

Are there any self-regarding harms that tell against using RVO to end a life rather than another method? To show that there are no such reasons, RVO must be established as a humane

method of termination. Termination through RVO could proceed similarly to living kidney donation, which accounts for approximately 95% of living organ procurements (based on OPTN data). In general, living organ donation is assumed to be in accord with the goals of medicine, assumed to not violate the rights of individuals, and accepted as a humane practice. Although there is a small risk of "anesthesia awareness" (waking during the procedure), typically the patient is completely unconscious and experiences no pain. General anesthesia induces a state of physically stable unconsciousness but poses the risk of an overdose that can paralyze the lungs or heart. This risk is irrelevant when the patient is to be terminated anyway. Consequently, RVO can be even more humane, as the higher doses of general anesthetics would minimize the possibility of anesthesia awareness.

Euthanasia as practiced in The Netherlands is no more or less humane than termination via RVO. The Dutch euthanize by inducing unconsciousness with general anesthesia and then cause cardiac arrest or suffocation (Royal Dutch Society for the Advancement of Pharmacy (RDSAP), 1994). Execution by lethal injection mirrors euthanasia in The Netherlands and often uses the same drug combinations (RDSAP, 1994; Koniaris, et al, 2005). Termination by RVO would be just as humane – the difference lies merely in removing well-functioning organs versus causing vital organs to malfunction.

At this point, one may raise the familiar paternalistic concern that patients are unfit to make an autonomous choice in these situations and are thus unable to choose termination through RVO. Just as people argue against VAE on grounds that patients are not in a position to make informed and autonomous choices about whether to end their lives, one might likewise argue that they are not in a position to autonomously choose the *method* of termination (see, for example, Kamisar, 1958). Patients must be allowed to choose termination through RVO when the proper

conditions are met, because nothing is at stake for the patient either in terms of her freedom or her well-being; thus, the classic paternalistic justifications for preventing her from choosing this method, such as those presented by Gerald Dworkin (1972), simply do not apply. Because nothing but the method is at stake for her, if her preference counts for anything, we must respect her request.

Why We Should Reject the DDR

I haven't given any argument for rejecting the DDR yet. There are two general approaches to justifying or challenging a moral rule – one is theoretical, the other is practical. On the theoretical approach, a moral rule is justified when it rests on a justified moral principle. For example, the moral rule "don't φ" is justified when it is true that "one ought not φ" or "φing is wrong." On this account, the DDR would be justified just in case the norm "it is wrong to take vital organs from non-dead patients" is a justified moral principle. On the practical approach, a moral rule is justified if we ought to favor *publicizing* and *promulgating* the rule as a public norm. I will argue that the DDR fails on both approaches – even in contexts where VAE and CP are not permitted. I first explain why the DDR fails on the theoretical approach.

Theoretical Justification for the DDR

A guiding assumption of philosophical debates about moral principles is that principles can admit of exception, but the principle is not justified if there are cases where there are no reasons to abide by it. Nearly all Generalists and their Particularist detractors accept this standard (Ross, 1930, pp. 19, 29; Hare, 1981, pp. 41-41; Shafer-Landau, 1997, p. 586; Raz, 2002, pp. 220-30; Sinnott-Armstrong, 1999, p. 4; Hooker, 2001, p. 10; Crisp, 2001, pp. 37-40; Stratton-Lake, 2000, pp. 128-30; and Audi, 2001, pp. 71-73). For example, the principle "stealing is wrong" can be

true even if there are cases where one *all things considered* ought to steal, but is false if there are cases where there is *no* reason not to steal. Consequently, on the theoretical model, the rule "do not steal" would be justified just in case there is always something to be said against stealing, even if sometimes stealing (e.g., to save a life) may be the best thing to do. The theoretical model is initially plausible as a guide for the promulgation of moral rules. *Prima facie,* publicizing and enforcing moral rules that do not reflect justified moral principles is a mistake. Indeed, it seems disrespectful to demand full compliance with a rule which one may sometimes have no reason to comply with and positive reasons to flout.

The killing machine thought experiment shows that the DDR cannot be justified on the theoretical model. Regardless of one's favored ethical view, there seem to be no considerations that favor disrespecting the victim's final request. Again, appeals to individual well-being, respect for persons, and individual autonomy only support switching the setting. And no familiar rights or deontic constraints prohibit switching the setting. Thus, we have extremely good grounds for granting the patient's wish and *no* apparent grounds not to. *A fortiori*, in this case, we have no reason not to humanely remove the victim's vital organs – we have a case that shows that the DDR does not enjoy theoretical justification. And, what's more, in individual cases of VAE and, more controversially, CP, an analogous situation appears to obtain – there would be no reasons to do what the DDR demands.

Some readers might reply by noting that *killing is wrong* is a theoretically justified principle and this also shows that the DDR enjoys theoretical justification. After all, although killing may be sometimes justified, it surely seems that we always have some reason to avoid it. And isn't any violation of the DDR an instance of killing? If so, then it also follows that we always have some reason to adhere to the DDR. Thus, the DDR may be theoretically justified. The primary

problem with this reply – aside from the possibility that there is sometimes no reason not to kill someone – is that, as I argued above, violations of the DDR are not always killings. Changing the setting of the killing machine and letting it carry out termination by RVO results in a violation of the DDR because the organs will be removed from a patient that is not dead (the victim will surely die shortly after organs are removed, however), but it is not killing the patient, it is merely selecting the method by which one is killed. It does not threaten the case to conceive of killing so broadly as to count switching the setting as an instance of killing. If even that counts as killing, then one now undermines the claim that there's always something to be said against killing. So it seems that the objector cannot "have it both ways" – that switching the setting is an instance of killing and there's always something to be said against killing.

Nevertheless, one might reply that in the vast majority of ordinary cases, violations of the DDR do involve killing. And surely, even if we perform voluntary RVO as a means of carrying out a predetermined VAE or CP, we are nonetheless *killing* the patient. And if there is always something to be said against killing, then it follows that, at least in "real world" cases, there is always something to be said for adhering to the DDR. So, again, perhaps the DDR enjoys a kind of theoretical justification after all.

This reply is misplaced for a number of reasons. First, the killing machine case is sufficient to show that the DDR does not enjoy theoretical justification – the relevant test here is whether there are any cases where one has no reason to conform to the norm. Second, notice that adhering to the DDR in cases of predetermined CP and VAE does not prevent *any* killing. The most adamant proponent of an absolute prohibition against killing can happily reject the DDR. After all, one can consistently oppose the death penalty while maintaining that the condemned should be executed respectfully and humanely. And similarly one can reject CP and VAE while

holding that those subject to these fates ought to be able to choose termination by RVO. Rejecting the DDR merely puts a method of termination "on the table"; it leaves open whether termination (of any kind) is justified.

Practical Justification for DDR

Of course, most proponents of the DDR will not be impressed. They will insist that the DDR's privileged place is *not* based on the conviction that it corresponds to a true or justified *moral principle*. Rather, the DDR is required to prevent unnecessary deaths or to inspire public confidence in and place firm and clear limits upon the organ transplantation enterprise.

These proponents reject the rarefied theoretical model in favor of a practical model for justifying moral norms. On such a view, a moral rule may be justified *despite* the fact that its corresponding moral principle is false. Specifically, rules that cannot be justified on theoretical grounds may be nonetheless justified because promulgating the rule may have good consequences, or at least be better than the alternatives. I will explain that the practical justifications for the DDR also fail. Specifically, I argue that though the DDR does place a clear limit upon the organ transplantation enterprise, it is the wrong limit: it is not a limit that potentially saves anyone from premature death and it is not a limit that plausibly inspires public confidence. Instead, it may serve to *fuel* public fears.

The first type of practical justification for the DDR is that having such a rule in place saves lives. Specifically, one may argue that the DDR prevents people from being killed for their organs who would not have otherwise been killed. I will focus on two versions of this justification.

First, some might worry that abandoning the DDR to allow voluntary termination by RVO in CP and VAE will result in more people choosing death or being sentenced to death. Arguably,

each of these additional deaths would be morally impermissible; these lives would be ended to benefit others.

I do not know what effect a change in practice would have on the number of people executed or on the number of people who choose VAE – that is a complex empirical question. However, even if we assume that the numbers would increase, what follows is not a practical vindication of the DDR but rather an indictment of judges' abilities to condemn only those who deserve it and the medical profession's ability to identify proper candidates for VAE. Notice that the numbers would increase only if patients who otherwise would not choose death would now opt for VAE by RVO. And the number of executions would increase only if judges now gave the death penalty to offenders they otherwise would have thought undeserving of execution. It is therefore not plausible to maintain that the DDR is worth sustaining as a fail-safe against *abuse* of CP or VAE without also condemning the practices of CP and VAE themselves. In short, any possible world where the DDR is a safeguard against this kind of abuse is also a world where these practices are unjustified. Thus, there are no worlds where the practices are justified but we should promulgate the DDR. At any rate, this objection is irrelevant. I am not defending the public policy of allowing termination by RVO in cases of VAE or CP (although these are ideas worthy of serious consideration where VAE and CP are practiced). Instead, I am rejecting the idea that there is something wrong with these and other policies *because* they violate the DDR.

Second, some might argue that the DDR saves lives and prevents killings because abandoning the DDR would make certain people – people who will not choose VAE or be sentenced to death – vulnerable to termination by RVO. Without the DDR, one might worry that patients, in general, may be killed by RVO for their organs. For example, abandoning the DDR

might make people in persistent vegetative states particularly vulnerable to being killed for their organs.

This proposed justification for the DDR ignores the fact that abandoning the DDR does not entail that doctors may kill for vital organs. Independent legal and medical norms already prevent doctors from actively terminating their patients for any reason in any way. VAE is the only current exception, one governed by strict oversight where permitted. The DDR has no bearing on whether patients can be killed for their organs: the DDR does not prohibit killing *for* vital organs, it prohibits killing *by* vital organ removal. Indeed, killing patients for their organs is not even forbidden by the DDR. If a doctor kills a patient, or lets her die, to obtain her organs he does not violate the DDR.

Again, some defenders of the DDR may be unmoved. They might claim that the DDR's privileged place has little to do with its ability to prevent unjustified killings. Instead, it is a good rule because it is *perceived* by the public as preventing unjustified killings – it inspires public confidence in the organ-transplantation endeavor. After all, wrong or right, the public may worry that medical professionals covet their healthy organs. And many of us find the thought that a doctor might remove our organs while we are still alive terrifying. So perhaps we need the DDR to secure public confidence.

While the DDR forbids many actions we find gruesome and morally repugnant, so too does the rule *do not kill patients without anesthesia*. Shall we adopt and publicize that rule as well? No. Doing so would cause public alarm. Rather than inspiring confidence, the very existence of the public norm would frighten the public for a number of reasons. First, it suggests that the relevant practice is common enough that an explicit rule needs to be publicized forbidding it. Second, and more importantly, it suggests that if a doctor does use anesthesia, he *can* kill his

patients. Third, even if the public is well aware that there is also general prohibition against killing patients, promulgating this rule suggests violations of the norm against killing whilst using anesthesia are not as pressing, serious, or severe as violations without the use of anesthesia.

The problem is caused by publicizing redundant norms against morally repugnant practices. To illustrate further, consider the rule "no use of cell phones in class on Fridays." If I made this norm public in my classroom, I would certainly give my students the impression that they are permitted to use their cell phones on other days. And matters may be even worse if, perhaps on my syllabus, I publicize *both* the rules "no use of cell phones in class" and "no use of cell phones in class on Fridays." In that case, I give the class the impression that my rules (or intentions) are disharmonious and indeterminate. Worse still, students get the impression that violations of my general norm are "not that serious" compared to violations of the norm on Fridays. It is for this reason that countries that do not permit doctors to kill under any professional circumstance have a special and powerful reason to reject the DDR. Promulgating a rule and all its implied rules is impossible; it requires promulgating an infinite set of rules. It only makes sense to promulgate "basic rules" and any unobvious rules implied by that set of rules. But, of course, if it is wrong to kill patients period, it is an obvious implication that it is wrong to kill them by RVO.

Thus, the rule the public really demands in contexts where CP or euthanasia are permitted is "don't kill or let die for vital organs," and in contexts where neither is permitted, "don't kill patients, period." Perhaps most important are rules that effectively prevent doctors from acting on intentions to kill or let die in order to procure organs. For example, comprehensive rules that clearly specify what a physician is required to do to save patients can render a physician's conscious or unconscious motivations moot. One might reply that we don't need those rules because they are corollaries of obvious and overriding medical principles. But one may say the

same thing about all that the DDR was hoped to prevent. Consequently, this "reply" would make my case for me.

My Arguments in Light of the Traditional Arguments About the DDR

The DDR's appeal is explained, in large part, by the belief that it is a serious moral wrong to kill patients to harvest their organs. But it should now be clear that the DDR does not actually prevent this. A doctor who causes a patient's death, either by omission or direct action, in order to harvest her organs complies with the DDR. Furthermore, the motives for promulgating the DDR are better served by promulgating other norms instead. But perhaps I need to address those who defend the DDR. What do the defenders of the DDR have to say about an argument like ours? Unfortunately, the extant defenses of the DDR seem to involve the same confusion I noted above. They typically do not address killing *by* organ procurement, but instead focus on preventing killing patients *for* organs.

Elsewhere, the discussion focuses on possible exceptions to the DDR. But, as I have explained, neither the theoretical nor the practical justification of the DDR turns on whether it can admit of exceptions. Finally, some defenders of the DDR insist (often without substantial argument) that we need it for practical purposes. But we do not, for the reasons outlined above. Ultimately, I explain why many of the arguments on both sides of the debate are misplaced, and in some cases simply invalid.

James Bernat advocates the DDR for social reasons. He writes, "I have been a strong advocate of the dead donor rule, because I believe that it helps maintain public confidence in the organ transplantation enterprise, which remains precarious at best" (Bernat, 2006, p. 128). Yet this line of defense is not compelling. Bernat is right to be concerned about public perceptions of organ transplantation. Patients worry that they will receive substandard treatment if the doctor

knows or even hopes that they are donors. Regardless of whether these worries are warranted, the DDR does nothing to assuage them. The fear is that one will be allowed to die, or even be killed, for one's organs. But no one worries, for example, that during a coronary bypass surgery the surgeon will intentionally remove the heart so as to induce death. Moreover, as I explained above, awareness of the DDR may very plausibly *decrease* the public's confidence in the organ-transplantation process. A public promise that doctors won't kill patients by RVO, without a more explicit rule forbidding killing or letting die to harvest organs, serves only to further scare potential donors. To my ears, the rule implicitly suggests that patients may be killed by other means, and that the medical community is eyeing your organs but promises not to take them directly while you are alive. Consequently, the rule may only exacerbate fears that potential donors will receive sub-standard treatment. Elsewhere in the article, Bernat contends that there may be special exceptions to the DDR (such as DCD), but that the rule itself should be maintained to "prevent killing an almost dead patient for organs" (Bernat, 2006, p.129). Again, the DDR prevents no such thing; it prevents killing *by* RVO, not killing *for* vital organs.

In "The Dead Donor Rule: True by Definition," Robert Veatch (2003) responds to Elysa R. Koppelman's suggestion that we should abandon the DDR to allow for organ procurement from persistent vegetative state (PVS) patients (Koppelman, 2003). Veatch, like Bernat, argues that the DDR should be maintained for practical reasons. First, he argues that abandoning the DDR would prompt a shift in the legal definition of death. He argues that the definition would revert from brain-death criteria to cardiopulmonary criteria once we permit organ procurement from living patients who lack brain functions. Second, he holds that abandoning the DDR and allowing for procurement from living patients would require radical revision of our homicide laws. Finally, he claims that DDR should be made, and effectively already is, "true analytically"

(Veatch, 2003, p. 11). "Dead," he asserts, should be, and is, defined as "having lost full moral standing as a member of the human community" (Veatch, 2003, p. 11).

I am unclear as to why Veatch thinks the definition of death will change. It strikes me that one would have the motivation for changing the definition of death under these circumstances only if one is wedded to the DDR. Expanding the class of organ donors to include living patients does not clearly entail shrinking the class of dead patients, as Veatch seems to think. While it might be true that the cardiopulmonary definition of death is conceptually simpler (and practically easier to apply), this does not entail that a definition of death based on brain criteria is incorrect and ought to be abandoned.

I acknowledge that maintaining that PVS patients are alive and legitimate donor candidates may require complex legal changes. But this is not a concern about abandoning the DDR; rather, it is a concern about abandoning the DDR *and* legalizing organ procurement from PVS patients. We should also resist Veatch's suggestion that we understand the DDR as a kind of "analytic truth" on par with "don't kill when doing so is morally wrong." Such a rule provides no practical guidance whatsoever. It would not count as a substantive moral principle – even a nihilist could accept it. And it seems there could be no practical advantages to promulgating tautologies. Moreover, interpreting the DDR as Veatch suggests – as a prohibition against removing organs from beings with full moral standing – gives the frightening impression that doctors can kill via RVO provided that the government deems a patient morally inferior. Indeed, if the law gives clear (non-moralized) conditions for when a being lacks "full moral standing," then the rule ceases to be tautological. Thus, Veatch's suggestion seems to be impotent at best and, at worst, fear-inducing. In any case, Veatch is ultimately concerned with actual policies regarding potential organ donors. We might want policies forbidding or allowing procurement from PVS

patients, patients about to undergo VAE, or prisoners about to be executed. But the desirability or demerits of these policies fail to justify or undermine the DDR.

Some authors reject the DDR on the grounds that there are morally permissible exceptions to the rule, while others defend it by claiming these are not really exceptions at all. Robert D. Truog (with Robinson, 2003; with Cochrane, 2006), Norman Fost (2004), Megan Crowley-Matoka and Robert M. Arnold (2004), Courtney S. Campbell (2004), and Stuart J. Youngner and R. M. Arnold (2001) all give arguments against the DDR on one of those grounds. It is an important question whether there are justified exceptions to the DDR. However, these arguments cannot function by themselves as arguments for or against the DDR. As I explained above, the practical and theoretical justification of the DDR is *independent of whether it admits of exception*. Consequently, these arguments are misguided. They are not the right sort of argument required to indict or vindicate the DDR.

Abandoning the DDR

The DDR prohibits many actions we think are wrong. But it specifically prohibits killing by organ procurement, an action that is permissible, and perhaps even obligatory, in certain situations. The DDR is a flawed rule and its desired effects would be better captured by other rules. The DDR does not serve the practical purposes it is supposed to serve. It does not prevent physician abuse, nor is it likely to increase public confidence in the medical system and organ transplantation enterprise. Indeed, it may be counter-productive to these ends.

The practical implications of my conclusion are as follows: First, debates about the permissibility of practices such as the removal of organs from patients in persistent vegetative states should no longer be framed in terms of whether these practices violate the DDR. We also need not worry that the DDR must be reinterpreted to allow these practices (if we conclude that

they are permissible). Nothing I've said here provides a positive reason to reject or embrace these policies; instead, I contend only that the widespread concern that such policies violate the DDR is moot.

Second, I am not committed to a policy that allows subjects of VAE or CP to choose death by RVO, but I maintain that it is irrelevant that such policies would violate the DDR. To my mind, the only relevant concerns here are whether VAE and CP are justified practices and the worry that legalizing RVO in these cases will cause the public to believe that subjects are being involuntarily killed *for* their organs. However, even if we conclude that such policies would be, on balance, imprudent, this would not provide any theoretical or practical vindication for the DDR.

Abandoning the DDR lets us focus on the important ethical aspects of organ procurement and could result in the good consequences of upholding autonomy and potentially increasing the donor pool. It also clears the way for more fruitful, more intelligent, and less dogmatic discussion of issues in medical ethics and policy.

Conclusion

There is a very reasonable and strong intuition to hold that organ donors are – and should be – dead. But this intuition simply does not stand up to scrutiny. Termination by RVO is permissible in some circumstances, and because of this, the DDR should be abandoned. It is ethically indefensible, point (5) in my main argument. Because of this and the problems illustrated in the last chapter, the DDR must be rejected, sub-conclusion (6) in my main argument. DCD donors are not dead and we have no reason to require that they be dead. The practice of procuring organs from patients with "permanently" stopped hearts appears, both *prima facie* and after analysis, to be morally permissible. Yet there still remains the question of

whether DCD is really a permissible practice. The next chapter will defend the practice of DCD in light of these arguments.

CHAPTER IV: WHAT MAKES DCD PERMISSIBLE?

Introduction

Traditional DCD donors are morally permissible candidates for organ procurement because they are dying, have appropriately chosen to have their organs taken, and are not being significantly harmed through the procurement of their organs. This set of conditions does not include being declared dead *even if* this declaration is appropriate. The tradition of using the DDR as the guideline for determining the moral permissibility of organ procurement is no longer plausible – in fact, it should have never been a moral guide. Yet DCD is a desirable practice that is broadly considered intuitively permissible (James, 2007). If the justification for DCD must no longer be in reference to death and the DDR, then on what grounds is it permissible? Most scholars opt for something akin to the CDDR instead of the DDR, but this rule does not seem to be good for the same reasons the DDR is not. In the previous chapter, I argued that there is no reason to adhere to the DDR (and thus that termination by RVO is permissible) when: (1) the time of termination is fixed; (2) the patient autonomously expresses a wish to be killed by RVO but does not choose death for the removal of organs; and (3) the use of RVO is no more harmful to the patient or others than alternate forms of termination. DCD donors are not dead, and the practice technically constitutes killing by RVO. If DCD fulfills all of these conditions, then it would most likely be permissible. However, DCD might fail to meet all of these criteria.

Despite this possibility of failure for DCD, examining these conditions and how they relate to DCD can help form a foundation for establishing its permissibility. I will argue that there are reasonable expansions of these guidelines that illustrate the permissibility of DCD as termination by RVO. The fact that exact time of death (or termination) is not set in DCD donors is the major

roadblock for DCD to meet these criteria, but the practice needs to be explicitly reconciled with all three requirements. I will expand these criteria to support DCD through illustrating that it is unnecessary that the time of termination be knowingly fixed, that it is permissible to choose death *for* RVO (ultimately it will be simply unavoidable if organ procurement is to be maintained), and that RVO will be no more harmful than an alternative method of termination, especially termination via a "natural" death.

Organ procurement from a DCD patient is permissible when (1) the patient autonomously expresses a wish to be an organ donor (including accepting the fact that she might technically be terminated through RVO) and (2) the harm to the patient is not significantly greater than what the patient would otherwise experience. Additionally, the benefits of granting a patient's desires and the benefits to the recipients of the organs further support the practice. These requirements are based on the more universal bioethical guidelines of respect for persons and nonmaleficence, broadly construed.

The Principles of Respect for Persons and Nonmaleficence

In order for organ procurement to be a permissible practice – in any form – and be done in accord with prevailing medical standards, it should not violate the principles of respect for persons and nonmaleficence. For DCD donors, it is unlikely that the donor will be disrespected if informed consent for donation is properly obtained, although it is worth noting that studies suggest most organ donors are not properly informed, especially those who registered as donors online (Woien, et al, 2006). There is serious debate about whether multiple vital organ donors experience harm, and there are two primary ways in which they can be harmed: either by being killed through the procurement of organs (if the donor is alive at the time of procurement) or through posthumous harm. While posthumous harm is a possibility, it would not seem to be a

deciding factor in the moral permissibility of DCD, as DCD donors should be considered alive at the time of organ procurement and protocols on handling the dead body after procurement should be able to ensure that no additional harm comes to the body *because* it was an organ donor. Stephen Winter (2010) summarized and critiqued the many notable non-consequentialist posthumous rights arguments that focus on posthumous harm, and he concluded that they are problematic because they fail to adequately locate a clear subject of the harm. While finding the subject of harm is usually the focal point in posthumous-harm arguments, whether posthumous harm is possible is ultimately beside the point for my overall argument. Posthumous harm is only important for DCD if organ donors are dead, and its permissibility would thus require either nonexistent or inconsequential posthumous harm. Posthumous harm, if present, is avoidable on most accounts through implementing proper guidelines (Winter, 2010). Avoiding this type of harm is a matter of policy and the exact conditions under which DCD occurs. Additionally, since I maintain that DCD donors are not dead, posthumous harm is simply not possible during the procurement. However, if patients' wishes regarding their organs after procurement are ignored, the patients might be harmed posthumously. But again, these harms could presumably be avoided with proper policies. To ensure that DCD donors are treated properly, the principles of nonmaleficence and respect for persons must be upheld.

Respect for Persons

We have obligations to other persons as members of our moral community, and these obligations result in our respecting other persons by taking or refraining from actions (Himma, 2009). Respecting an individual means refraining from actions that are deemed impermissible, performing actions that are obligatory, and allowing permissible actions to be taken on persons *because* of an individual's nature as a person or other morally valuable object (e.g., a human

body). Brain death is based on the assumption that what is important about persons is their rational nature, and it is this same rational nature that underlies the necessity of respecting persons. I will assume that there are individuals that clearly fall under the category of person (i.e., me and you), despite the fact that determining marginal cases will be difficult (i.e., persistent-vegetative-state patients and severely hydrocephalic infants).

It is important to first distinguish who, or what, can be respected in cases of organ procurement. As Stuart Spicker (1984) noted, there are multiple objects which can be the subject of respect in organ procurement, such as a person who currently exists, a person who existed in the past, and a body and organs, to name a few. In some sense, all of these objects might need to be respected, but the respect that will be given them will be in reference to some person – the present person the donor is, the former person the donor was, or another person making decisions about the organs.

The living body that remains when a patient experiences brain death is something that the previous person has left behind and ought to be treated in similar fashion to the person's other belongings (Gill, 2004). Allowing a person to choose whether she is an organ donor and what will be done with her remains once she is dead are accepted practices. When a formerly rational being is unable to make a decision for itself, either temporarily or permanently, a living will (if it exists) that was created by that person when rational specifies what actions are to be taken during the period of incompetence. Living wills also direct actions during the final stages of life, including decisions regarding life-sustaining or -terminating treatments. If provisions on the disposition of the body are not included in the living will, other documents can specify what is to be done with organs. These specifications can include the patient's declaration of intent to

become an organ donor. When directives are unknown, an appropriate surrogate makes the relevant decisions.

A brain-dead infant is the prime example of a dead body that is a potential organ donor but lacks known directives. To respect such a creature, we cannot look to the desires articulated by a present or previously existing person (such a person does not, and did not previously, exist), but we could still have reasons to respect the body. In such situations, the parties designated to make decisions about the remains, usually the parents, would be appropriate wards of the body, and their wishes ought to be respected. Although it is impossible to absolutely honor the desires of an individual through surrogacy, it is meant as the best method of preserving the autonomy of the patient (Eliott & Olver, 2007). Additionally, the mere fact that the object under scrutiny is a human body could warrant some form of respect because human bodies are generally considered sacred and most forms of desecration are abhorred (Finucane, 1981). In many cultures, especially Western European and American, this sacredness entails a certain amount of respect for any human body, especially bodies that are to be used for procurement. It would not appear, however, that the body is so sacred that nothing potentially "harmful" may be done to it: procurements and certain other activities such as embalming and autopsies are not generally thought of as 'bad" desecrations. One way of potentially accounting for these concerns is to include a "respect for human bodies" within the principle of respect for persons. The important point to note is that it would not appear that any of these concerns over the body after death and individuals with no known directives would prevent most cases of organ procurement, as there are reasonable ways of dealing with these concerns.

Upholding the principle of respect for persons entails that we ought to respect the individual's informed and autonomously determined desires regarding organ procurement as

faithfully as possible. This is a necessarily vague guide for action, because the details of each situation can vary greatly, and what is permissible (or obligatory) to do with one patient may be impermissible with another. The emphasis that American bioethics places on autonomy means that an individual has a very strong right to choose her own fate, including decisions regarding organ procurement.

The debates about the role of respect for persons in the context of DCD focus on *why* and *how* a DCD donor is respected, not *if*. The value of preserving the autonomy of a patient is often assumed without much justification (Eliott & Olver, 2007). Donors can be respected if the proper protocols and procedures are followed, most importantly through allowing them to make the autonomous decision to donate. However, the preservation of autonomy is not absolute and exceptions are allowed when there are very good reasons to justify its violation – such as for paternalistic reasons or to maintain the safety of others. Immediate desires may be disregarded when a patient is in a compromised position in favor of previously expressed desires from a competent individual, such as a past statement by the patient while in a healthier state of mind (Berg, et al, 2001). The importance of placing value on autonomy in medicine is rather straightforward: each person should be allowed to choose what is to be done to her.

Procedures can be done voluntarily (with expressed and autonomous consent), involuntarily (without autonomous consent and against known desires), and non-voluntarily (without autonomous consent in absence of known desires). Voluntary actions do not, under normal circumstances, violate autonomy, while involuntary ones are more likely to. Non-voluntary actions, however, are more complicated because the lack of consent means it is impossible to know whether an individual's actual wishes are being fulfilled. In the context of organ procurement, the current debate over "presumed consent" highlights these concerns. At issue is

whether individuals who have failed to declare their stance on organ donation should be assumed to be organ donors. Michael Gill (2004) discusses the issue in great detail and states that "living up to the principle of autonomy underlying informed consent must be our first priority," (p. 55) a proposition that he claims both opponents and supporters of presumed consent would agree with. Gill ultimately argues that upholding these principles should lead to adopting the practice of presumed consent, but as the law in the United States currently mandates presumed non-consent, controversy remains about the topic.

For DCD, respecting autonomy would include examining the relevant desires of pertinent individuals (and possibly even society) regarding the procurement. Organ conscription could even be in line with upholding individual autonomy, as Delaney and Hershenov argue (2009a & 2009b). As DCD is currently performed, it *can* uphold autonomy, even if there is debate on *why* it does. Promoting autonomy in DCD means honoring the desires of the relevant individuals (especially the patient) and subsequently procuring organs only from specific individuals who have consented.

It is also important that those giving consent for organ procurement understand what it entails, which means that informed consent must be adequately obtained. Informed consent finds its base in autonomy, which is itself grounded in the principle of respect for persons. In their work, *Informed Consent*, Applebaum, Lidz, and Meisel describe the basics of the principle:

> Informed consent refers to legal rules that prescribe behaviors for physicians in their interactions with patients and provide for penalties, under given circumstances, if physicians deviate from those expectations; to an ethical doctrine, rooted in our society's cherished value of autonomy, that insures to patients their right to self-determination when medical decisions need to be made; and to an interpersonal process whereby

> physicians (and often other health-care professionals) interact with patients to select an appropriate course of medical care. (1987, p. 3)

In the medical context, following the principle of informed consent entails that patients be informed about their medical options and that they provide their consent for any performed or withheld procedures. It doesn't matter where patients receive this information from – it is just important that they have the information (Kukla 2007). As R. Faden and T. Beauchamp (1986) established in their important work on informed consent, it is only expected that a patient be substantially, but not necessarily fully, informed because of epistemological constraints. In the almost necessary absence of a patient's complete knowledge and understanding of her condition, a physician must achieve a delicate balance of dispensing and withholding information that takes into consideration the patient's intelligence and knowledge as well as the reasonability of available procedures. Under such a system, the patient ought to be aware of the best procedures in a fashion that she can understand and choose among them. As with other justifiable violations of autonomy, informed consent should only be violated in extreme circumstances, most notably when a patient is incapable of significant comprehension. Ensuring that informed consent is properly given by the appropriate party will be necessary to upholding autonomy and respecting the patient with regard to DCD, and doing so is certainly possible.

Principle of Nonmaleficence

The principle of nonmaleficence is the guiding ethical principle that holds one should not, all things considered, do harm to another person. It is a vague principle like the principle of respect for persons because determining what is, all things considered, not bad for an individual often has no straightforward method of determination. It is a principle that is expressed in some form in virtually all major ethical systems. In deontological ethics, it can appear as a simple and clear

duty that one ought not do something bad to another individual, in the same vein as Kant's categorical imperatives laid out in his *Grounding for the Metaphysics of Morals*. In consequentialist ethics, it can appear as the idea that one ought to minimize the amount of harm an individual experiences, as J. S. Mill lays out in his *Utilitarianism*. In Aristotelian virtue ethics, it is generally commendable not to harm another individual, as described in his *Nicomachean Ethics*.

The principle of nonmaleficence does not mean that one ought not harm *simpliciter* because there are many actions that contain an element of harm that are morally permissible. Many actions that fall under the "doctrine of double effect," in which an intended action contains both a desired "good" consequence and an undesired "bad" consequence, are permitted under the principle. Surgery is a prime example where a patient is harmed in a way that does not violate this principle, as the patient is undergoing a surgery that is, on the whole, good for him or her. A crucial element that makes surgery permissible is the intention of those involved: the intention is not to harm the patient, but rather to help the patient. Merely stepping on someone's foot is not in and of itself a moral harm to the victim, but if it were done maliciously, then the victim would have been morally wronged and the stepper would have committed a moral wrong. In terms of organ procurement, the principle of nonmaleficence requires that, all things considered, organ donors not have something bad done to them.

DCD donors could be harmed in two primary ways, depending upon their status: by being killed if alive at the time of procurement, or by some type of posthumous harm if dead. As my previous discussion illustrated, posthumous harm is not a serious concern because the donors are alive at the time of procurement and would not necessarily face more harm after death than a dead individual that did not donate organs. The primary worry is that harm could befall a living

patient by being terminated through RVO. The harm that comes to patients, especially that which might come through the termination of life, in DCD must therefore be, all things considered, acceptable. If the harm is unacceptable, then the organ procurement would likely violate the principle of nonmaleficence. However, when the principle of respect for persons is upheld, the harm caused through death in DCD will likely be both minimal and acceptable. I will establish that DCD does not have to violate the principle of nonmaleficence by showing that my expanded criteria for termination via RVO are reasonable and can be met by DCD donors.

"Setting" the Time of Death in Dying Patients

A set, unalterable time of termination was integral to illustrating that termination by RVO would have been permissible in the cases of the killing-machine thought experiment, VAE, and CP. The soon-to-be-dead individuals were to be terminated, and RVO was simply the method of termination – death did not come any sooner as a result of choosing termination by RVO. They were close to death, but how much work does this proximity to death actually do? DCD donors are not dead, and though I will not offer specific criteria for when these donors actually die, their condition is certainly close to death.

Traditional DCD donors could be candidates for immediate procurement (once a decision is made to end treatment) either before or after cardiopulmonary cessation. Under current practices, cardiopulmonary cessation must occur first for a set amount of time and the patients must be declared dead before organs can be procured. The time of death in these patients has been "set" and has already passed. Another approach would allow patients to be declared dead after cardiopulmonary cessation but before death occurs. Would the time of *actual* death be any different between these two cases? Patients are not dead after 2, 5, or possibly even 20 minutes of cardiopulmonary cessation. Once cardiopulmonary cessation occurs, the time of death is set

but unknown. Once life support is withdrawn, the time of death is "set" and unknown as well – it will occur in the very near future, but our knowledge and medical technology are inadequate to allow for a precise determination. Miller and Truog (2008) suggest patients would seem to be appropriate candidates for organ procurement once life support is removed because of the *certainty* of death, even though we do not know precisely *when* it will happen. There has even been the recent suggestion that kidneys ought to be procured once the decision is made to remove life support because making this decision means the patient will inevitably slide quickly toward death (Morrissey, 2012). Procurement is limited to the kidneys because removing them is technically living organ procurement and will not kill the patient, though this sounds much more like a technicality to meet current requirements and might not satisfy those who think patients must be in an imminently dying condition before any vital organs may be taken. Moves like these illustrate further support for a rule like the CDDR. The patients are "close" to death in that the time of death is set, and this is what makes procuring organs before death palatable for many.

But why stop at kidneys? Why not take the rest of the organs if proper consent has been obtained? If pancreases and livers are harder to obtain and lost more often in DCD, then why not take these organs before death instead of the kidneys? The primary reasons that Paul Morrissey argues for pre-mortem kidney procurement is because it will maximize the wishes of the soon-to-be-deceased, give us more viable organs, and not harm the patient (especially by not killing the patient). He is advocating for this in cases of severely brain-damaged (but not brain-dead) patients *because* they are imminently dying, so it is unclear why other organs are precluded from being procured in this fashion. Perhaps we could remove all organs while utilizing ECMO and treating the patient as if she were to be a recipient of every vital organ to ensure proper

treatment. This would technically not seem to violate any laws or protocols because the donor would not be killed, although it might not seem to be in accords with the intent of the DDR.

This might be a technically appropriate step to take to modify organ procurement procedures, but it would seem that this would send the completely wrong message about organs and organ donation. Adopting such procedures could be saying, "Well, as long as you're not technically dead and we don't technically kill you, we're going to carve you up and take your organs." Youngner (2010) suggests taking many organs in this fashion, but Morrissey rejects it because removal of those organs would be the proximate cause of death, even though ECMO could keep the patient alive beyond when the patient might have expired had organs not been procured. Removing kidneys is certainly less proximately lethal than removing a heart, but it is lethal nonetheless. Morrissey even suggests putting his proposed patients on dialysis just to ensure that kidney removal does not actually cause the death of the patient so that the underlying condition does. It would seem medically possible to remove all of the vital organs and keep the patient alive until the underlying condition consumes, or would have consumed, the patient. There seem to be only wrong reasons to adopt pre-mortem organ procurement for these reasons, and many good reasons in favor of approaches that say, "We'll honor every one of your last wishes, take good care of you, and ensure that, should you desire it, nothing useful left in your body goes to waste." This may very well support pre-mortem kidney procurement, but doing this would allow for procuring all organs under ideal conditions, especially before death actually occurs. The patients in these cases are imminently dying and will be dead in a rather predictable amount of time. Their time of termination has been set by the underlying condition.

The time of death of a patient can be set under many conditions, but because of epistemological constraints, we might be unable to know exactly when it will occur. In the

killing machine case, we knew exactly when the patient would die. In cases of VAE and CP, however, we do not necessarily know – nor have to know – exactly when the patient (or prisoner) will die, but we just know *that* they will die and a time *will* be set. In CP, the patient will be temporally close to death despite potentially being quite healthy and biologically far from it. In VAE cases, it is possible that the patient will likely meet a definite end through VAE, but it might not be temporally close if the disease resulting in the decision for VAE is slow to act. Cases where life support is withdrawn meet the same criteria. Even cases where there is merely a valid decision to withdraw life support (and before it is actually withdrawn) would also fulfill the criteria. Indeed, there are many cases where the moment of death is set – the exact moment just might be unknown.

All of these scenarios have one important aspect in common: although the patients are not dead, they are in close proximity to death and have a "certain" prognosis of death. It is certain that, as living creatures, we will die eventually, but for a patient who made a decision to withdraw life support, has it withdrawn, or has experienced cardiopulmonary cessation, death is very near and will inevitably come. As Truog and Robinson (2003) argue, what seems to be doing to the work in DCD is not that the patients are dead, but rather that they are in close proximity to death. However, proximity to and prognosis of death face similar problems that death faces in justifying organ procurement. There are conceptual and practical difficulties in determining just how close or how certain one is to death, and even if these were easily determinable, there would need to be a justification for their use as moral restrictions. Ultimately, they can be useful practical moral guides, but primarily for prudential reasons.

If there is moral importance to either proximity to death or the prognosis of death, then there must be a specific and definable moment in which the moral status of a patient changes – in the

case of DCD, going from not being a candidate for immediate procurement to an immediate potential donor. There must be some time or event that causes this shift. The proximity to death, if understood as the time until death, would be very difficult to define. Patients in very similar conditions could die a few days, weeks, or even years apart. Moreover, even if we could accurately and regularly determine the time of death of a patient, it seems unlikely that we could determine an *amount* of time before death in which a patient changes moral status. It would seem odd that two patients in nearly identical conditions would have different moral statuses if one were predicted to die in two minutes and the other in two hours.

Bernat (2006) offers very reasonable criteria for how close to death a patient must be in order to be a candidate for organ procurement: the current criteria for certifying "death." Bernat concedes that, technically speaking, patients currently certified as dead using the minimally necessary criteria are not dead, but that they are in a state that allows procurement of organs because they are very close to death and will certainly die. But is the *proximity* to death playing a unique role here? What if one patient *actually* becomes dead in 20 minutes but the other doesn't die for 120 minutes? Or for another 120 days? At which point does the closeness to death, in terms of time, become morally important? If the proximity to death is not playing a unique role, then perhaps the prognosis of death is doing more work here – but is it playing a unique role?

One could still maintain that the proximity to death of the patient is important because a patient that is very far from death might be wronged in having that life ended early in the pursuit of organs. If the proximity to death is morally important, it would seem to be so because there is some harm that can come to the patient, possibly through the loss of potential life. But the patient does not have to be harmed by dying, especially in cases like ALS where the patients might consider the rest of their lives not worth living. Being very close to death would seem to mitigate

this concern. However, if the proximity to death makes the patient an appropriate candidate for organ procurement *because* the patient is close to death, then the reason would appear to be that the patient is unlikely to be harmed. If this is true, then the proximity to death will have already been morally accounted for by directly upholding the principle of nonmaleficence. If the "pre-mature" death of the patient would constitute an unacceptable harm, it will have been accounted for through this broader analysis, and merely requiring that a patient be close to death does no necessary moral work and may even prevent what would otherwise be morally permissible procurements. In DCD cases, the death of the patient has been set and the patient can be respected while not being harmed, regardless of when the patient would have died otherwise.

Miller and Truog (2008; 2011) suggest that we can be justified in removing organs at the moment life support is removed from the patient. Once life support has been removed the necessary action has been taken to begin a process that will inevitably, and relatively quickly, lead to death. The fact the patients are imminently dying does the necessary moral work for Miller and Truog. This gives us reason to question the practice of using ECMO (extra-corporeal membrane oxygenation) to maintain organ viability. If it is unnecessary that a patient be dead when her organs are procured, then what is the purpose of keeping the organs alive while waiting for the patient to die? Once a procedure like ECMO begins, the time of death has effectively been set, and this scenario becomes no different than the killing-machine thought experiment. It is ethically inconsistent to maintain that ECMO is morally permissible but that termination by RVO is not.

The fact that patients are not being harmed in accord with the principle of nonmaleficence is what makes them candidates for DCD, and the fact that they are imminently dying indicates that the principle might not be violated (assuming the patient is also being respected). Dying or being

dead can function as a sufficient condition to know that the donor is being treated properly, but these are not necessary conditions for organ procurement. DCD donors fulfill the first criteria I laid out for permitting termination by RVO *because* they are imminently dying and the time of termination is set, even though the exact time is unknown. The second condition I laid out for permitting termination by RVO is that patients cannot be killed *for* their organs. DCD donors have the time of their death set *because* they are organ donors (hence, their lives are being ended prematurely) and they are being terminated *for* their organs. I now must turn to this concern.

Termination *for* Vital Organs

DCD donors are not dead, but it is the fact that they are imminently dying that signifies they are potential candidates for immediate procurement. Yet the fact that they are imminently dying could be a product of desiring their organs. A very simple thought experiment can illustrate a case in which it is permissible for a patient to choose termination *because* she wants to be a vital organ donor.

Consider a patient that is in the last stages of life and is on artificial respiration. She is minimally conscious but still has some very lucid moments. She has previously expressed a desire to be removed from life support if she were ever in such a condition. She is now in a condition where it might be reasonable to take her off of support. In one of her better moments the medical staff inquires as to whether her wishes have changed. In the previous few weeks, she learned about organ donation and specifically the fact that organs become less viable as the body deteriorates. In her current condition, most of her organs are still in a transplantable state. She cannot recall the exact reason she desired to be removed from life support earlier in her life, but now she desires to be removed from life support so that her organs will be healthy for transplantation. She is choosing to die – possibly to be terminated – so that her organs can be

removed and subsequently transplanted. She has made an autonomous decision to remove life support and is in a condition in which the removal of life support is medically supported. Is there anything to be said against granting her desire to die *because* she was motivated to "choose" death *because* she wants to have her organs removed?

I see no reason to think that her desire for organ procurement would preclude her from making the decision to have life support removed. It is unreasonable to hold that the permissibility of procuring her organs changes if she had made the decision to have life support removed because she "was done fighting." In fact, the reason she chooses to be removed from life support might not be relevant at all – if she desires it and it is medically condoned, then there is little reason to deny her wishes.

I follow Miller and Truog (2008; 2011) in asserting that removing life support is effectively terminating the patient. There is nothing passive about doing so, and the act of removing life support *is* the act that results in the patient's death – not the underlying cause of the illness. Regardless, in this case, the patient is choosing to have her life terminated at the time that it is because she wants her organs to be healthier when they are procured. Assume for a moment that she did not know the facts of organ procurement and was never lucid after going on life support. What would influence the decision to remove life support? I see no moral problem in the scenario in which her doctors let the health of the organs dictate the moment of the removal of life support. The patient could have lived longer, but the doctors decided to end it at a time that would let the organs be more viable. This could even be the primary factor in determining when to remove life support. The patient's death will have already been set to a window of time because of her condition – she is dying by no choice of her own. She or her doctor is, however,

choosing a more specific time and method of direct termination. She would be terminated *for* her organs.

Cases of organ procurement from infants provide a very clear example of why it could be permissible to terminate a life *for* organs. Consider the views of parents that have a child with no chance of survival, such as a child with severe hydrocephaly ("water on the brain") that is not technically brain-dead and not dead by cardiopulmonary standards. It is certainly reasonable that these parents desire to use their child to save the life of another infant. When infant organ transplants became more prominent in the mid-1980's, Dr. Calvin Stiller agreed to try to procure organs from anencephalic infants because he was "moved by the pleas of these mothers to redeem their pregnancies" (Blakeslee, 1987). He was weary of both the medical viability of the procedures as well as the potential ethical issues with performing them, but he decided to perform the procedures because the mothers *desired* to "redeem pregnancies."

These parents have been placed in a very tragic situation, yet they have decided to make the best of it and use their infants as organ donors. In these situations, the infants should be treated in such a fashion as to maximize the viability of their organs and should be terminated at the right moment *for* their organs – and this is, generally, how it is currently done (Blakeslee, 1987; Boucek, et al, 2008). Why is this permissible? The parents desire redemption, which constitutes saving the life of another infant, but other reasons could justify doing this as well. The infants are as good as dead, are treated in a fashion to maximize organ viability, and are ultimately terminated (or allowed to die) in a fashion that best preserves their organs. There is nothing wrong with this – it is commendable that parents in such a tragic situation are so concerned for the well-being of others. The infants die in the fashion they do *because* their organs will be

taken. This is permissible because the parents and the infant are both being respected and, all things considered, not harmed.

These scenarios involving infants can be very similar to scenarios involving DCD donors. But there is one clear aspect that makes these situations disanalogous: in the infant cases, the decision to donate is made by a surrogate, and in adult cases, it is (or certainly can be) made by the donor *herself*. If there is nothing wrong with the practice of terminating infants "for" organs, then the similar case involving adults should be no more morally problematic, because the donor, not a third party, is making the decision. This more directly maintains autonomy and respect, and the amount of harm that would befall the patients in both cases should be no different.

It is permissible to choose death *for* RVO in at least some circumstances – and it will be simply unavoidable if organ procurement is to be maintained, as we can never truly know one's motivations. However, this is not yet enough to illustrate that termination by RVO in DCD cases is permissible. There could still be significant harm that befalls a patient or others because of this premature death.

The (Non)Harm of Death in DCD

In all likelihood, little harm comes to a DCD donor who is near death and is terminated prematurely by RVO. I laid out three criteria for when killing *by* organ procurement can be acceptable: (1) the time of termination is fixed; (2) the patient autonomously expresses a wish to be killed by removal of vital organs (RVO) but does not choose death for the removal of organs; and (3) the use of RVO is no more harmful to the patient or others than alternate forms of termination. Condition (1) holds if the patients are effectively given a window of time in which they will expire. The killing-machine thought experiment does not change if, instead of having an exact moment of death, there is a window in which the victim will perish. This is analogous to

patients that have a prognosis of near-immediate death. Condition (2) can also be met if the patient will die by no choice of her own and desires to be an organ donor through the practice of RVO. The fulfillment of condition (3) is not illustrated as easily, as it is possible that RVO could be more harmful to the patient or others than alternate forms of termination, especially a "natural" death. I will now show that choosing death by RVO is no more harmful than the alternatives, and may actually be less harmful.

Hastening Death, the Inevitability of Death, and Quality of Life

There has been, and continues to be, much debate about whether the procedures taken before organs are removed from a DCD donor hasten death (Bogdanich, et al, 1999; Chawkins, 2008; President's Council on Bioethics, 2008). The time at which life-sustaining treatments are stopped can definitely be influenced by the consideration of organ removal, and doctors tend to declare death much sooner in these cases than they would normally, as doctors often take their time in declaring death in order to be more certain that death has occurred by the time they get around to declaring it (President's Council of Bioethics, 2008). If the decision has been made to remove, or refrain from using, life-supporting technologies in a patient, the patient is an organ donor, and the patient is to be a planned DCD donor, then death is inevitable, intended, and expected. If procedures to maintain the viability of the donor's organs result in an actual earlier onset of death, this should not change the morality of the situation since the inevitable decline into death had already begun.

When there is little reason to think a patient will experience any quality of life, there is no obvious value to the individual to live more life in such a state. Because death will inevitably come to a DCD donor when life support is removed and any remaining life is minimally worth living at best, very little – if any – harm can come to the patient from dying earlier than possible

in these cases. But what if a patient would have returned to health or might have had some experiences that constituted a life worth living? Truog and Miller (2008) discuss this problem:

> In this context [of procuring organs after a decision to remove life support], our proposed justification of vital organ donation is compatible with the current approach to end-of-life care. Some patients will die who might otherwise have lived. But this will occur in circumstances in which the physicians believe that the patient is very unlikely to survive the withdrawal of life support, and the patient's surrogate is expecting and is prepared for the patient's death. Again, there is a trade-off. In the standard scenario, the trade-off is between a small number of survivors versus the comfort of all patients who have life support withdrawn; under our proposal, it is between these potential survivors and the possibility of organ donation, with all of its benefits for the recipients, as well as for honoring the donation preferences of the donor. (p. 42)

Although some patients might have lost out on moments in a life worth living, the overall costs and benefits are far outweighed by this potential loss. It is thus not the proximity or inevitability of death in a patient that is doing the moral work here – it is respecting the desires of the individual and ensuring that only acceptable harm, all things considered, takes place.

Suicide and Organ Donation

In an episode of the television series *Futurama*, Hermes Conrad is suicidal and threatening to jump off a building because he was demoted in his position as a bureaucrat. About to witness this tragedy, Hubert J. Farnsworth (a 150-year-old professor and Hermes' boss) exclaims, "Please, old friend, don't jump. Use another method that won't damage your liver. Other people need it, you know" (Odenkirk & Ervin, 2000). Why should Hermes not be allowed to choose suicide via RVO in this situation? If he is dedicated to committing suicide at a specified time and is an organ

donor, then, given my previous arguments, I see no theoretic reason why this is impermissible. Indeed, if a person chooses what could be termed a rational suicide and there will be, all things considered, no harm that comes to the patient or others through carrying it out by RVO, it is hard to find grounds to object to such an action – *in theory*. There are, however, likely to be many practical reasons to not condone such a procedure.

First and foremost, it will be very difficult to determine whether any harm will take place by terminating the person through RVO – especially in terms of the suicidal person's possibility of future experiences worth living for and contributions to society. Perhaps the two most important reasons not to condone such an action are that it would result in a socially condoned method of suicide that involves termination by doctors (or some other professional). There are many social reasons to not generally condone such suicides and we could be justified in preventing the practice for purely prudential reasons.

However, in cases where assisted suicide or euthanasia is legal and the patient is a candidate for such a procedure, then it should be clear that termination by RVO is a viable option. Even choosing suicide for RVO in these cases should be unproblematic, because the patient would have been a candidate for termination absent a desire to donate organs, most notably due to a terminal illness or unbearable pain.

A Defense of Terminating Patients With a Prognosis of Imminent Death for Organs

Regardless of these moral justifications for organ procurement, there remains the simple objection that if an organ donor is not dead, then the practice constitutes killing – and killing is wrong (especially when carried out by a doctor) and therefore DCD should not be permitted, even as it is currently done. The patient, those involved, and society might be harmed by such an act of killing. I will now defend the practice of termination by RVO from such an attack.

Some might want to appeal to the simple distinction between killing and letting die to defend certain protocols for DCD that would attempt to place it clearly in the latter category. The distinctions (especially moral ones) between the two concepts continue to be a major debate in ethics, and one which I do not wish to, nor need to, explicate here. James F. Childress (1993) has an interesting and appealing take on the problem of killing and letting die with regard to DCD: difficulties with potential killing in DCD should not prevent its practice, because it is a good practice that intuitively seems to be permissible and desirable. It is a simple, but powerful, argument: yes, there can be difficulties because a case might constitute morally problematic killing when the patient might have instead been allowed to die, but we should not focus on such a distinction and let this get in the way of DCD since it seems, all things considered, to be permissible. However, the distinction would be moot if killing in DCD is permissible.

There are four ways that one could defend DCD against the complaint that "DCD is wrong because it is killing the patient":

(1) Deny that DCD involves killing.

(2) Accept that DCD is killing, but the doctors aren't intending it.

(3) Accept that DCD is intentional killing, but there's no harm in it.

(4) Accept that DCD is intentional killing and there's harm, but it's acceptable and explicitly permitted by the donor.

Something similar to Defense (1) is presented by Bernat (2006). Bernat maintains that patients declared dead by traditional criteria (despite the fact that they are not technically dead) are permissible candidates for organ procurement and will not be killed through the procedure because the decision to withdraw and withhold life support entails that the patients are already meaningfully "dead." However, approaching the problem this way denies the merit of the

complaint in the first place: DCD *does* seem to entail doctors killing patients (as I have argued), so something must be said about that.

It might be possible to justify organ procurement from a patient near death on the grounds that the resultant death of the patient is an unintended consequence of removing vital organs for transplantation, as Defense (2) suggests. Such a defense could work as follows: DCD donors are patients that are candidates for organ procurement. Whether they are dead is irrelevant to the procedure. Doctors are permitted to procure vital organs from such patients. This might have the consequence of terminating the patient, but this is an unnecessary concern. The goal of the procedure was to procure organs and doing so in this situation is morally permissible. If they are killed, this is merely just an unintended consequence, and if it is bad, then it is acceptable. This defense is an example of the "doctrine of double effect." Although it might be impermissible to kill a patient under normal circumstances, this harm is acceptable because it is a consequence of the decidedly good action of procuring organs.

Defenses (3) and (4) are very closely related. They both accept that DCD constitutes killing, but (3) holds that no harm will come to a DCD donor, while (4) holds that if harm occurs, it will be acceptable and knowingly permitted by the donor. The inevitability of death and the quality of life that DCD candidates experience shortly before death can result in no actual harm or only minimal harm to the patient, as Miller and Truog (2008; 2011) explain and I have illustrated. The only harms that could come would be through the loss of a short period of organic life or potentially through the loss of some life worth living. If there is any harm as a result of loss of life through RVO in DCD, it can be acceptable given the right constraints.

The harm that occurs in a case of DCD could come to either the donor or others, such as family members, friends, or the doctor. As explained in the previous chapter, it seems clear that

no more harm is done to others than if the patient dies by other means, and termination by RVO can save multiple lives. Some family members may be unhappy that the life of the patient will be ended early or by termination via RVO, and this might qualify as a type of harm. However, these harms are not necessary or unique to using RVO as a method of termination. The fact that the patient is dying could just as easily distress the family, and there is no reason to think that termination by RVO for organs in DCD cases typically include other-regarding reasons. The claim that doctors removing organs in this fashion might threaten professional values or the public, as Veatch (2004) argues, could have merit but this is a worry about policies rather than about the moral permissibility of the procedure itself.

Termination by RVO in DCD cases is humane and can be done identically to normal procurements or euthanasia by RVO. Contending that patients are in no position to choose to be terminated by RVO in DCD cases is untenable when proper guidelines are used and patients freely choose the method. It is simply difficult to find grounds to maintain that any significant amount of harm *must* occur in DCD cases. Certainly, harms *can* occur, but with proper guidelines and appropriate consent, it is unlikely that the harm that might occur in most regular DCD cases (that is, those as they are currently done and the reasonable expansion to those imminently dying) prevents the practice. As James Rachels puts it in his argument for euthanasia, "If an action promotes the best interests of *everyone* concerned and violates *no one's* rights, then that action is morally acceptable" (2003, p. 175). This reasoning applies equally to DCD, as Norman Fost (1983) suggested quite some time ago. As Fost later discussed (1999), cystic fibrosis patients have expressed desires to donate before death (and thereby be killed prematurely) because their organs will not viable by the time they actually die if allowed to die "naturally."

What *Really* Matters Ethically in DCD

In her review of Dick Teresi's book about brain dead organ donors, *The Undead* (2012), Elizabeth Royte writes, "Like [Teresi], I don't want to suffer when my organs are harvested, nor do I want them harvested if I can consciously make use of them myself" (Royte, 2012). This seems to really capture what worries people about organ procurement: that they might be seriously harmed and their lives (that are worth living) would be ended earlier than they should be. One additional worry comes to mind as well: organ donors will not receive proper treatment because their organs are wanted. Ensuring these worries never become reality is rather simple: focus on the desires of patients, treat the patients with respect, and treat them in accord with the principle of nonmaleficence.

Mike Collins (2010) makes arguments that parallel mine with respect to brain death and for very similar reasons. In short, he maintains that brain-dead patients are not actually dead, but that we can still be permitted to take organs from them when it appears to be morally permissible, even though we might be killing the patients. He also believes that focusing on the nature of brain death in those types of donations muddles the issues, and writes, "This is not a metaphysical or scientific debate about the nature of death. It is a normative debate about when, if ever, it is morally acceptable to remove vital organs from a terminally ill yet living human body" (Collins, 2010, p. 155). To resolve the debate, he also points to the principles of respect for persons and nonmaleficence. However, like Truog and Robinson, he maintains that it is permissible to procure organs from brain-dead patients because they are dying and almost dead, which is an unnecessary further restraint to place on the situation.

In DCD, the work that death appeared to be doing was actually being done by the fact that such patients are dying an imminent death. This is the reason for the shifting support away from

the DDR and towards policies that would align with the CDDR. However, an imminent death is morally important only because it signifies that harm does not befall the patient – but only if the patient's desires are also respected. When the patient is respected, protocols are properly determined and followed, and the patients are not, all things considered, harmed, then it would be permissible to terminate a patient by RVO for the purpose of procuring organs.

Elysa R. Koppelman (2003) supports the idea that death should be abandoned as a criterion for organ procurement because of its conceptual and practical difficulties. She offers the idea that rather than use the DDR, a "respect for donor" rule should be in place. Respect for the patient is not necessarily connected to the patient being alive, and so when they conflict, the respect for the patient should be the principle guiding actions. The implication of the "respect for donor" rule is rather simple: when it is most respectful for the patient's wishes or interests to procure their organs, then the organs should be procured, regardless of whether the individual is dead. The primary motivation, as well as the exemplary situations where this view is helpful, is making the bodies of patients in declining and irreversible states (such as PVS) available for organ procurement. Such patients could experience organ damage to the point that the organs are no longer viable for transplantation after their death. If, however, a patient is in a PVS and her organs are to be donated, then respecting her wishes and donating her organs while they are more viable is more in line with respecting her rather than waiting for the inevitable death and having the organs go to waste.

Koppelman, however, fails to appreciate that harm might come to a patient or others through organ donation and that there could still be reasons to disregard the wishes of patients who want to donate in these cases. Perhaps there are practical reasons to ignore certain patient requests, such as problematic social implications or serious difficulties in following a last request. For

example, no matter how much a patient desires it, removing her brain and playing soccer with it in the emergency room is not a last request we must reasonably honor. However, for DCD as it is currently done, there is likely to be no substantial harm to any party.

Removing organs from donors as soon as it is morally permissible would mean procuring them from living patients. Doing so would avoid a number of problems that DCD under the DDR faces, specifically the problems of consent (both in procurement and organ use) and posthumous harm. Because it appears that the donor is alive in DCD, the living individual makes decisions over the organs and posthumous harm from the procurement is a non-issue. What is done with the organs post-procurement (and presumably after the death of the donor) is open to debate, but these are issues for posthumous policies, and outside the scope of this work.

The NADR (not-alive-donor rule) and the CDDR would still seem to constitute viable alternatives to the DDR and Koppelman's "respect for donor" rule. There might be reasons to use the NADR or CDDR, but doing so is theoretically unnecessary. If one of these rules seems to match up nicely with the desired limits on DCD, then it could perhaps be implemented – but this does not mean that it would add anything to determining the permissibility of DCD. If a donation is deemed permissible, then it is permissible because it does not violate our prevailing moral rules. There is nothing added to the moral permissibility of DCD by saying, "And the donor is not alive (or close to death), so it's OK to procure." There might be practical reasons to do it, such as affirming public confidence or making determinations regarding candidate patients clearer, but no obvious theoretic necessity. Empirical studies could confirm whether these would be good policies to have. These, however, would just be a matter of policy, and the real reason they would be in place is because they represent more fundamental underlying ethical principles.

DCD is permissible because it upholds the principle of respect for persons and does not violate the principle of nonmaleficence. In addition to this, the donors are not dead and we have no reasons to adhere to the DDR. As DCD is currently practiced and could practically be implemented, it is permissible when (1) the time of termination is relatively fixed, (2) the patient autonomously expresses a wish to be killed by RVO (even if this desire was chosen *for* the removal of organs), and (3) the use of RVO is no more harmful to the patient or others than alternate forms of termination. The benefits of the organ transplantation also add to the desirability of DCD and help to offset any potential harms.

Following these guidelines results in a system based upon the principles of respect for persons and nonmaleficence, both of which are readily and practically implementable. By maintaining that potential donors be close to death, the potentially problematic "healthy suicide by RVO" is avoided, and the requirements for donors can be easily implemented through living wills, advance directives, normal procedures for obtaining consent, and minor modifications to the technical treatment of DCD donors. As an added benefit of my model, consent is more solidly obtained from this expanded patient pool when compared to the traditional donor pool because these patients will have explicitly stated their desire for organ procurement in a much closer proximity to the event than most donors are able. Policies would be based upon sound ethical and medical principles, and would be quite clear and direct to implement. My recommended approach has clear advantages over using death as the moral guide, as it avoids its many conceptual difficulties and tenuous connection to morality and should supplant guidelines relying heavily on death.

Conclusion

Regardless of its controversy, DCD is often promoted because it provides viable organs (Veatch, 2008), and this speaks in favor of point (8) in my main argument: If DCD is morally permissible, the benefits of DCD suggest that it ought to be implemented. One could even maintain that DCD is a morally permissible practice solely because it provides a significant number of life-saving organs and should be maintained for that reason. Additionally, more controversial methods of procurement – such as those involving the procurement of infant hearts – are justified on the grounds that they provide more benefit than harm in what might be an otherwise impermissible practice (Bernat, 2008). However, DCD would rest on a more solid foundation if it were shown to be a fundamentally permissible practice.

The implication of my analysis is that the patients currently known as "DCD donors" do not need to be, in fact, "dead" for the procedure to be permissible. Thus, without the DDR (or any other principle) in place restricting it, the fundamental principles of bioethics imply that DCD is morally permissible, point (7). These patients would be more correctly called "soon-to-die-through-cardiopulmonary-cessation donors." Indeed, what justifies DCD also justifies, at least minimally, expanding the class of patients that qualify as donors. Additionally, the conceptual difficulties with death will no longer be relevant to determining when an individual may be a candidate for DCD, eliminating these types of issues from the debate.

Rules requiring some form of prognosis of or proximity to death, like the CDDR, are certainly reasonable to use as guidelines to ensure that patients are not harmed and are respected. Although it is theoretically permissible to allow certain patients that fulfill the necessary moral criteria to choose termination by RVO, it would likely be practically easier to utilize rules

requiring proximity and this would probably make organ procurement more palatable to the public at large. As Miller and Truog (2008) suggest,

> "… organ donation for people imminently dying but not on life support should not be permitted until our recommended policy [of removing organs from patients that have had life support withdrawn] has been well established and obtains public support. Eventually, permitting live donation outside the context of withdrawing life support might become ethically acceptable, given suitable criteria for prognosis and patient consent." (p. 43)

But it already *is* ethically acceptable to permit organ procurement outside the context of withdrawing life support, because the prognosis of death is unnecessary for permitting procurement. The CDDR is thus also an unnecessary rule, and when adequate consent is given and significant harm will not come from the procurement, a procurement will indeed be ethically permissible. I do not know how things could change to *make* these procurements "ethically acceptable." Either they currently are and will be, or they are not – but there can be reasons that policies permitting organ procurement outside the context of withdrawal of life support are not acceptable as a basis for public policy.

Organ procurements from patients that are currently classified as DCD donors are permissible because the patients have autonomously chosen to donate organs in such a fashion and no one will experience harm to an extent that forbids the procedure. It is morally permissible and ought to be implemented because it has clear benefits, my primary conclusion (9) in this work. These traditionally "dead" patients are not actually dead, but they are imminently dying. Even though these patients are imminently dying, this fact does no necessary moral work. Death, the proximity to death, and the prognosis of death are all unnecessary factors for justifying the practice of DCD, but requiring an imminent death could serve as a reasonable practical guide.

Additionally, implementing something like the NADR or CDDR could provide more support and guidance for organ procurement policies, though it is conceptually unnecessary.

CHAPTER V: THE IMPLICATIONS OF THE DIMINISHED ROLE OF DEATH IN DCD FOR ORGAN PROCUREMENT AND BEYOND

Introduction

Death is an unnecessary factor to consider when determining the moral permissibility of procuring organs from traditional DCD donors. The historical use it has enjoyed as a justification for procurement is probably because death appears to represent a shift in moral status that permits the procedure. But the moral significance that death plays can be directly captured by looking to other concepts. The conceptual problems with defining death, defining criteria for it, and adequately applying the criteria also suggest that other more definite concepts would serve us better in moral discourse. When death is seen in this light, then discussions that have traditionally focused on death as a significant factor can now focus on other principles for a more direct and accurate moral analysis – most notably by focusing on the principles of nonmaleficence and respect for persons. When these principles are upheld, organ procurements can be morally permissible, regardless of whether the patient is dead.

Using the Principles of Nonmaleficence and Respect for Persons as the Real Guiding Principles

David Degrazia (1997) said of the moral importance of personhood that,

> *"I submit that, at least in any context where someone's personhood is reasonably debatable (either because of limited information or because the being in question is a borderline person), there is nothing you can do with the concept of personhood that you can't do as well or better with whatever more specific concepts are immediately relevant*." (p. 311)

Death has this same characteristic as personhood – when there are problems in determining it, for whatever reason, we are better served by looking to more specific and definite concepts. If death is easily determinable, then it could serve a useful conceptual purpose. However, we are always better served in general by looking to these better-defined concepts. In DCD, this means looking to the principles of respect for persons and nonmaleficence, because death merely signifies that they have been met. Although, as I just quoted DeGrazia as saying, we might lack a clear concept of precisely the class of agents that fall under the purview of respect for persons, we do have a good grasp on what constitutes respect. Even if it is questionable as to whether a patient qualifies as a person, it is highly unlikely that the class of agent the patient would fall under would result in significantly different prohibitions than the actions that can be performed on persons. With all of its problems, death should be avoided in moral discourse if possible.

Peter Singer maintains that it is not death that matters when determining what we can do with patients (1995). We can define death however we want it, and even opt for a rigid definition based on circulatory cessation, because it is elsewhere that we look for moral permissibility. For Singer, it is whether the life is worth living that tells us if we can end it and take organs. Death is an entirely unnecessary factor because it is in the value of life that we are looking for permissibility.

Singer, however, fails to appreciate the full intricacies of the issues, as well as the fact that the organ procurement would serve us best if it fit well into the rest of our laws and beliefs. It is not whether it can be determined that the life is worth living, but it is also whether the patient justifiably desires her life to be ended prematurely. Even if a patient thought the rest of her life might be worth living, the amount of pleasure lost from an earlier death might allow us to terminate her by RVO if she so desires. And it must be the patient (or a very appropriate

surrogate, as in the cases of infants) that desires the practice, as doing so, even when the life is deemed not worth living by others, would be an involuntary termination, and I do not wish to defend such actions.

Miller and Truog's recent book, *Death, Dying, and Organ Transplantation: Reconstructing Medical Ethics at the End of Life* (2011), collects and reiterates their views on organ procurement. Their main argument is that medical ethics needs to be reconceived around the facts about both brain-dead donors and DCD donors. Because organ donors are probably not actually dead, if we are to take organs – and we really do want them and should be taking them – then we would have to allow for doctors to actively terminate patients, something that is utterly forbidden by traditional medical ethics. Whatever name we want to give to what's occurring, whether it is active termination, organ-donation euthanasia, or merely RVO that unfortunately causes death, the actual reasons that we seem to maintain that DCD is permissible justify reasonable extensions of the practice. Whether we openly acknowledge that this is physician termination and permit it, it is more important that we acknowledge that removing organs earlier and from more patients than we have been is fully in-line with how we currently do things and appears, by most accounts, to be morally permissible.

The Problems with Death are No Longer Issues for Ethical Analysis

Death is a very difficult concept to nail down. However, this problem no longer has to impede important ethical discourse regarding practices such as organ procurement. Nearly every work I have cited in my discussion has focused on whether patients are dead, and only after determining this do the authors turn to whether the patients under discussion are proper candidates for organ procurement. The debate over death has played this central role because it has always been assumed that organ procurement turns on whether the patients are dead – which

is a very reasonable intuition, and one that I once shared. But when we really look at what permits vital organ procurement, it is not the death of the patient. Similarly to death, technical determinations about the health of patients and the likelihood of their being harmed through organ donation can be difficult to determine. But these determinations will not be nearly as difficult to implement as death, and they will also provide clearer guides than death.

Practical motivations for changing the definition of death and making it so that certain patients are classified as "dead" in order to permit organ procurement are no longer necessary. It is lamentable that so much of the debate of permissibility for organ procurement has focused on the conceptual problems with death and the epistemological problems in declaring it. The debate has focused too much on finding ways to redefine or interpret the definition of death or the conditions of patients. The desire for more organs and justifying what appears to be a "forbidden," yet morally permissible, practice has driven much of the debate. But there is no reason to push for declaring death in conceptually bothersome ways simply because we want more organs – if we want more organs and it appears to be morally permissible, then we should just examine why it is morally permissible to procure organs when certain conditions are met. It is a mystery to me why the debate has become so complicated. If we want to understand the moral nature of an action, we should examine the moral nature of the action (like DCD), not seemingly relevant concepts (like death), unless it becomes absolutely necessary.

Policy Implications

While I have presented primarily a moral defense of DCD, the most pressing implication of my analysis is that the DDR should be abandoned and procurement protocols should be rewritten. Policy is a tricky thing and it is best written when it enjoys both theoretical and popular support. As the Siminoff, et al (2004) study illustrates, the public is ready for policies to

change. I have now given the theoretical argument for why a policy shift is morally justified, and perhaps even obligatory. Failing to change policies will cause people in need of organs to die who should not have died, and will also deny the reasonable desires of individuals wishing to donate healthy organs to aid the lives of others. Patients will be harmed when they should not be – either through being prevented from donating or failing to receive an organ that could have been available – and the important desires of individuals that can be honored without violating other moral principles will be denied when patients (who are reasonable candidates for termination by RVO) are prevented from donating.

One advantage of Morrissey's approach advocating pre-mortem kidney procurement (2012) is that the donor isn't immediately killed by the procedure, so there would seem to be no immediate need to change the official framework for organ procurement. Expanding the current donor pool in more significant ways would require much work in modifying and clarifying current medical and legal protocols before any significant changes could be made (Miller & Truog, 2011). Yet, despite all of the work that might need to be done, Morrissey thinks that his policy is good because with it, "the general public's trust that patients not be used as donors before they are beyond hope of survival would be preserved" (Morrissey, 2012, p.5). But clearly there are many ways of preserving this public trust that could allow for more organs to be procured.

Dominic Wilkinson and Julian Savulescu (2012) argue that we should allow for organ donation euthanasia (ODE), which is effectively VAE via RVO, in patients who are going to have life support withdrawn, will die shortly after it is withdrawn, and have consented to ODE. This would be a reasonable policy shift, but would also require a rather large change in accepted practices, especially by explicitly permitting a type of euthanasia. Wilkinson and Savulescu want

to allow ODE because it will result in the procurement of a lot more organs, especially when compared against other potential policy shifts. Their justification for ODE rests on the same principles that I have been using here, and it seems unreasonable to me that they want to limit ODE to patients who will be removed off of life support and imminently die. Limiting it to patients in these situations helps to guarantee that the patients are not harmed, but there are clearly more situations than just these where patients would not be harmed by VAE via RVO. ODE is a reasonable policy that should be broadly implemented, but it would first be necessary to adopt euthanasia in general, as allowing it only in these cases might send the problematic message of "doctors won't kill you — unless they want your organs."

Expanding the Organ Donor Pool

PVS patients have suffered brain damage to the extent that they are incapable of having conscious lives and are likely in a condition where death will not constitute a significant harm. If they are organ donors and they have previously consented to the process of termination by RVO, it is clear that they would meet all of the conditions I have laid out to be organ donor candidates. Redefining death to include PVS patients has been advocated recently (see Koppelman, 2003, for arguments on both sides of this issue), but this is both conceptually problematic and ultimately morally unnecessary. Classifying PVS patients as dead is controversial, at the very least, because there is justified conceptual reluctance to declare patients with any amount of brain activity dead. PVS patients are the perfect example of patients who are not considered dead, and perhaps should not be, but are appropriate candidates for organ procurement and termination via RVO.

Additionally, patients with ALS or other neurological conditions that cause death should become candidates for termination via RVO when the appropriate guidelines are followed. Patients with cystic fibrosis, whose organs become more useless as death approaches, could also

easily fulfill reasonable criteria to be vital organ donors. There is also no reason to exclude "non-dying donors" whose procurements would be in line with the principles of nonmaleficence and respect for persons. For example, patients with ALS or cystic fibrosis that are not near death nor suicidal might reasonably choose to donate organs to save the lives of loved ones. I do not know precisely who will make reasonable candidates, but it does not seem necessary to preclude the possibility that non-dying donors will be morally permissible donors.

Evolving Principles and Handling Cases Independently

One complication that results from my analysis is that determining appropriate candidates for organ procurement can become more subjective – that is, laying out specific guidelines applicable to all patients will be extremely difficult, if not impossible. Determining when a patient is respected and not harmed cannot be easily determined through rigid protocols. Ideally, every patient's case would be handled individually to determine whether the important ethical principles are upheld. But we could be justified in laying out general guidelines and setting limits on organ procurement for practical reasons. As I discussed earlier, requiring that patient death be imminent could serve as the basis of protocols, perhaps through the NADR or CDDR. Laying out specific methods for obtaining consent is also reasonable. However, any policies that are created would have to be flexible if they are to result in the best moral actions.

My approach openly accepts that what constitutes harming or respecting a person can and will change, and I think that this should be openly acknowledged and considered when determining when patients are candidates for donation. I do not know what the future holds in terms of treatment and technology, but I do know that we can maintain our underlying ethical principles when treatments change. As long as patients are not (all things considered) harmed and are respected, we will be able to determine reasonable guides for organ procurement.

Involuntary Procurement

The primary worries with organ procurement are that patients will be neglected or murdered so that their organs can be procured. It should now be clear that the policies that I am advocating are adamantly against such actions. I am not advocating ever violating the stated desires of a patient. The ability to autonomously choose what will be done to one's body, both before and after death, is of the utmost ethical importance. No patients should ever undergo a procedure that they do not desire – they would be both disrespected and harmed by such an action.

But these are legitimate worries and ones that I do take very seriously. Policies including the involvement of numerous independent parties to determine when procurements are allowed and the requirement for explicit consent can help to ensure that patients are not treated immorally. I want us to do what's right. Involuntary procurement and involuntary termination are clearly wrong, and policies should prevent such actions. These actions are, and should be, illegal. But preventing voluntary termination by RVO from a patient in the right circumstances to save the lives of others is also clearly wrong. We can, and should, allow patients to choose such an end if it does not violate our primary moral principles.

The Argument Revisited

As described in the beginning of this work, the main argument present is as follows:

1. The fundamental principles of bioethics are "respect for persons" and "nonmaleficence" (broadly construed).
2. The DDR purports to guarantee that these fundamental principles will be respected in organ donation.
3. The DDR seems to render DCD morally impermissible.

4. The DDR relies on a deep conceptual vagueness about "death," and so doesn't have clear application conditions.
5. The DDR is ethically indefensible.
6. Because of (4) and (5), the DDR must be rejected.
7. Without the DDR (or any other principle) in place restricting it, the fundamental principles of bioethics imply that DCD is morally permissible.
8. If DCD is morally permissible, the benefits of DCD suggest that it ought to be implemented.
9. Thus, DCD is morally permissible and ought to be implemented.

(1) is the underlying assumption of this work and the discourse about DCD. (2) was established through illustrating in Chapter II that the historical debate about the DDR focuses on the role of death and the assumption that a dead donor cannot be harmed nor disrespected, assuming proper protocols (such as those requiring informed consent) are followed. Chapter II also established that the DDR renders DCD morally impermissible because donors in DCD cases are not actually dead – the requirements that donors be in an irreversible (or similar) condition strongly suggest that the donors ought not be considered dead. The DDR thus prevents procuring organs from these patients *because* the patients are not dead. These complications with death establish (4) as well.

Chapter III attacked the DDR and showed that it is morally indefensible because it prevents organ procurement in cases where it is clearly permitted, such as in CP, VAE, and the killing machine, establishing (5). This, combined with the conceptual difficulties with death, point (3), mean we must reject the DDR, point (6). A direct appeal to the principles of respect for persons and nonmaleficence can directly support the practice of DCD because it can be done in a fashion

that does not harm nor disrespect the patient, point (7), as evidenced by the manner in which DCD is currently implemented. DCD has the primary benefits of honoring last wishes regarding one's organs and saving the lives of sick individuals that need vital organs in order to survive, meaning that it should be implemented absent any good reasons to prevent it, point (8). Since it is often deemed desirable and it is morally permissible, we ought to continue with DCD, establishing the conclusion (9), and should probably expand the donor pool as well. Most importantly, DCD as it is currently practiced is a morally permissible practice, and the DDR, rather than supporting it, runs contrary to its justifications and implementations and ought to be abandoned.

Conclusion

I began by stating that I proposed to answer the following question: When is it morally permissible to procure multiple vital organs from patients that are not brain dead? The answer is: When the patient has consented to the procedure, no one is being unacceptably disrespected by the procurement, and no unacceptable harm is coming to anyone as a direct result of the organ procurement. These conditions can be regularly met when patients are close to death, but this does not have to be the case, as death is not necessarily relevant in making these considerations. At the moment, procuring organs from patients is morally permissible and something we ought to do when the conditions I have laid out are met.

When artificial organs become perfected, organ procurement from animals will become extremely rare. But this is not a problem for anything I have said. We have the ability to transplant organs and thereby save lives, and we should do so. A fully healthy individual is allowed to donate all or part of a vital organ despite the fact that it might cause death and a diminished quality of life afterward (though deaths are infrequent and quality of life is often very

high for living organ donors). Parents are allowed to effectively terminate their infants so that their organs can be used to save the lives of other infants. These procedures are allowed because the patients or the parents (the appropriate surrogates) have willingly and explicitly accepted the procedure with all of its downsides. In living organ donation, a patient might die. In infant organ donation, a patient will die. But lives will be saved, desires will be fulfilled, and no prohibitive harm will occur.

Why should people not be allowed to choose to donate organs in analogous situations – especially when near the end of life? Termination by RVO can be chosen for infants and the reasons are rather clear. In some infant heart transplants that have taken place recently, the infants were terminated by having their hearts removed. The donor infants effectively had no quality of life and no future. Patients currently classified as DCD and those with life support withdrawn that are approaching death are in the same condition. Expanding the donor pool to include these dying patients is morally unproblematic and in line with general medical guidelines.

Maximizing the donor pool would increase the number of much-needed available organs, but doing so would appear to require the procurement of organs from living individuals. It turns out that the current practice of DCD procures organs from living individuals. If it is problematic to procure organs from patients simply because they are alive, then DCD should not be allowed. But there is little to be said against the practice as it is currently done, and much to be said for it. Death performs no necessary role in justifying the practice. The principles that do justify it – nonmaleficence and respect for persons – justify much more than just DCD as it is currently done. DCD is actually a misnomer, and adopting a new term and understanding for current medical practices could help shift the practice of organ procurement towards a more ethically

coherent and beneficial practice. We need a new term for “DCD donors” and those in very similar conditions. “End-of-life donation,” or ELD, could be such a term. It denotes the situation of the donor patients accurately and has no negative connotation. In fact, it sounds perfectly normal and reasonable – at the end of life, patients should be able to donate their organs. But we need adequate policies covering the practice, and that should be the next major project in organ donation.

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APPENDIX A: LIST OF USED ABBREVIATIONS

ALS	Amyotrophic Lateral Sclerosis
CDDR	Close to Dead Donor Rule
CP	Capital Punishment
DCD	Donation after Cardiac Death
DHHS	Department of Health & Human Services
DNR	Do-Not-Resuscitate Order
HRSA	Health Resources and Services Administration
NADR	Not-Alive Donor Rule
NHBD	Non-Heart-Beating Organ Donation
ODE	Organ Donation Euthanasia
OPO	Organ Procurement Organization
OPTN	Organ Procurement and Transplantation Network
PVS	Persistent Vegetative State
RDSAP	Royal Dutch Society for the Advancement of Pharmacy
RVO	Removal of Vital Organs
UDDA	Uniform Declaration of Death Act
UNOS	United Network for Organ Sharing
VAE	Voluntary Active Euthanasia